

Rosemount™ 8700M Magnetic Flowmeter Platform



- Industry leading performance:
 - Standard reference accuracy of 0.25% of rate
 - High reference accuracy of 0.15% of rate (optional)
- Rosemount 8732 Transmitter: Integral and remote mount designs, backlit display, and explosion-proof housing
- Rosemount 8712 Transmitter: Wall mount design, backlit display, 15-Button tactile key pad
- Available in 4-20mA with HART®, FOUNDATION™ Fieldbus, Modbus® RS-485, Intrinsically Safe (I.S.) outputs, Process Diagnostics, and SMART™ Meter Verification to improve reliability and performance
- Rosemount 8705 Flanged Sensor: Fully welded sensor for maximum protection
- Rosemount 8711 Wafer Sensor: Economical, compact, fully welded, and lightweight sensor, provided with alignment spacers for easy installation
- Rosemount 8721 Hygienic (Sanitary) Sensor: Specifically designed for food, beverage, and life sciences applications


Product Selection Guide

The Rosemount 8700M Magnetic Flowmeter Platform is available in a variety of sensor styles and configurations to ensure compatibility with virtually all applications and installations.

- For transmitter details see [Table 87](#) and [Table 88](#).
- For sensor styles and details see [Table 89](#).
- For available lining materials see [Table 90](#).
- For available electrode materials and electrode types see [Table 91](#) and [Table 92](#).
- For process reference (grounding) options see [Table 93](#) and [Table 94](#).


Other liner and electrode materials not listed may be available. Contact your local sales representative. For further guidance on selecting materials, refer to the Magnetic Flowmeter Material Selection Guide located on Rosemount.com (Technical Data Sheet Number 00816-0100-3033). For more information regarding the available product offering see the ordering information, [Table 6](#) thru [Table 86](#).

Transmitter selection

| Transmitter | General characteristics |
|--|---|
| 8732  | <ul style="list-style-type: none"> ■ Integral and remote configurations available ■ HART/Analog and Pulse outputs available ■ FOUNDATION™ Fieldbus and pulse output available ■ Modbus RS-485 and Pulse output available ■ Advanced Diagnostics available ■ LCD display (optional) <ul style="list-style-type: none"> — With optional optical switch local operator interface⁽¹⁾ ■ Two discrete channels (optional) |

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| Transmitter | General characteristics |
|---|---|
| <p>8712</p>  | <ul style="list-style-type: none"> ■ Wall mount configuration ■ HART/Analog and Pulse outputs available ■ Modbus RS-485 and Pulse output available ■ FOUNDATION™ Fieldbus and pulse output available ■ Advanced Diagnostics available ■ Local LCD display (optional) <ul style="list-style-type: none"> — With optional 15 button tactile key pad⁽¹⁾ ■ Two discrete channels (optional) |

(1) HART or Modbus protocol only.

Sensor selection

Table 1: Sensor Selection

| Sensor | General characteristics |
|---|---|
| <p>8705</p>  | <ul style="list-style-type: none"> ■ Standard process sensor ■ Flanged process connections ■ Welded, sealed coil housing ■ ½ -in. (15mm) to 36-in. (900mm) ■ Standard, reference, bullet-nose, and flat electrodes available |
| <p>8711</p>  | <ul style="list-style-type: none"> ■ Economical, compact, and lightweight alternative to flanged sensors ■ Wafer (flangeless) design ■ Welded, sealed coil housing ■ 1½ -in. (40mm) to 8-in. (200mm) ■ Standard, reference, and bullet-nose electrodes available |
| <p>8721</p>  | <ul style="list-style-type: none"> ■ Hygienic (sanitary) sensor ■ Designed for food, beverage, and pharmaceutical applications ■ Variety of industry standard process connections ■ ½ -in. (15mm) to 4-in. (100mm) ■ 3-A certified ■ Suitable for CIP/SIP |

Magmeter Diagnostics

Rosemount diagnostics reduce cost & improve output by enabling new practices

Rosemount Magnetic Flowmeters provide device diagnostics that detect and warn of abnormal situations throughout the life of the meter - from installation to maintenance and meter verification. With Rosemount Magnetic Flowmeter diagnostics enabled, plant availability and throughput can be improved, and costs through simplified installation, maintenance and troubleshooting can be reduced.

Table 2: Magnetic flowmeter diagnostics

| Diagnostic name | Diagnostic category | Product capability |
|--|---------------------|--------------------|
| Basic diagnostics | | |
| Tunable Empty Pipe | Process | Standard |
| Electronics Temperature | Meter Health | Standard |
| Coil Fault | Meter Health | Standard |
| Transmitter Fault | Meter Health | Standard |
| Reverse Flow | Process | Standard |
| Coil current | Maintenance | Standard |
| Electrode saturation | Process/Maintenance | Standard |
| Advanced diagnostics | | |
| High Process Noise | Process | Suite 1 (DA1) |
| Grounding and Wiring Fault | Installation | Suite 1 (DA1) |
| Coated Electrode Detection | Process | Suite 1 (DA1) |
| Commanded Smart Meter Verification | Meter Health | Suite 2 (DA2) |
| Continuous Smart Meter Verification | Meter Health | Suite 2 (DA2) |
| 4-20 mA Loop Verification ⁽¹⁾ | Installation | Suite 2 (DA2) |

(1) Available with HART output only.

Options for accessing diagnostics

Rosemount Magmeter Diagnostics can be accessed through the Local Operator Interface (LOI), ProLink® III v3.1, a HART Field Communicator⁽¹⁾, and AMS® Suite: Intelligent Device Manager⁽¹⁾. Contact your local Rosemount representative to activate diagnostics or for diagnostic availability on existing transmitters.

Access diagnostics through the LOI for quicker installation, maintenance, and meter verification

Rosemount Magnetic Flowmeter Diagnostics are available through the LOI to simplify maintenance.

Access diagnostics through ProLink III v. 3.0 (HART)/ProLink III v. 3.1 (HART, Modbus)

Simplify maintenance and troubleshooting practices by utilizing ProLink III v3.0/v3.1 to access diagnostics and troubleshooting information, log variable data, run SMART Meter Verification, and print verification reports.

Access diagnostics through AMS Intelligent Device Manager⁽¹⁾ for the ultimate value

The value of the diagnostics increases significantly when AMS Intelligent Device Manager is used. AMS Intelligent Device Manager provides a simplified screen flow and procedures for how to respond to the diagnostic messages.

(1) Available with HART output only.

Magnetic Flowmeter Sizing

Selecting the appropriate sensor size is an important step when considering a magnetic flowmeter. The physical properties of the process fluid, as well as the fluid velocity should be considered. It may be necessary to select a flow sensor that is larger or smaller than the adjacent piping to ensure the fluid velocity is in the recommended flow range for the application.

Table 3: Sizing guidelines

| Application | Velocity range (ft/s) | Velocity range (m/s) |
|-----------------------|-----------------------|----------------------|
| Normal Service | 0–39 | 0–12 |
| Preferred Service | 2–20 | 0.6–6.1 |
| Abrasive Slurries | 3–10 | 0.9–3.1 |
| Non-Abrasive Slurries | 5–15 | 1.5–4.6 |

Note

Operation outside these guidelines may also give acceptable performance.

To convert flow rate to velocity, use the appropriate factor listed in [Table 4](#) and the following equation:

$$\text{Velocity} = \frac{\text{Flow Rate}}{\text{Factor}}$$

| Example: English units | Example: SI units |
|--|--|
| Magmeter Size: 4 in. (factor from Table 4 = 39.679) Normal Flow Rate: 300 GPM $\text{Velocity} = \frac{300 \text{ (gpm)}}{39.679}$ <p style="text-align: center;">Velocity = 7.56 ft/s</p> | Magmeter Size: 100 mm (factor from Table 4 = 492.78) Normal Flow Rate: 800 L/min $\text{Velocity} = \frac{800 \text{ (L/min)}}{492.78}$ <p style="text-align: center;">Velocity = 1.62 m/s</p> |

Table 4: Line size vs. conversion factor

| Nominal line size—Inches (mm) | Gallons per minute factor | Liters per minute factor |
|-------------------------------|---------------------------|--------------------------|
| ½ (15) | 0.947 | 11.762 |
| 1 (25) | 2.694 | 33.455 |
| 1½ (40) | 6.345 | 78.806 |
| 2 (50) | 10.459 | 129.89 |
| 2 ½ (65) | 14.923 | 185.33 |
| 3 (80) | 23.042 | 286.17 |
| 4 (100) | 39.679 | 492.78 |
| 5 (125) | 62.356 | 774.42 |
| 6 (150) | 90.048 | 1,118.3 |
| 8 (200) | 155.93 | 1,936.5 |
| 10 (250) | 245.78 | 3,052.4 |
| 12 (300) | 352.51 | 4,378.0 |

Table 4: Line size vs. conversion factor (continued)

| Nominal line size—Inches (mm) | Gallons per minute factor | Liters per minute factor |
|-------------------------------|---------------------------|--------------------------|
| 14 (350) | 421.70 | 5,237.3 |
| 16 (400) | 550.80 | 6,840.6 |
| 18 (450) | 697.19 | 8,658.6 |
| 20 (500) | 866.51 | 10,761 |
| 24 (600) | 1,253.2 | 15,564 |
| 30 (750) | 2006.0 | 24,913 |
| 36 (900) | 2,935.0 | 36,451 |

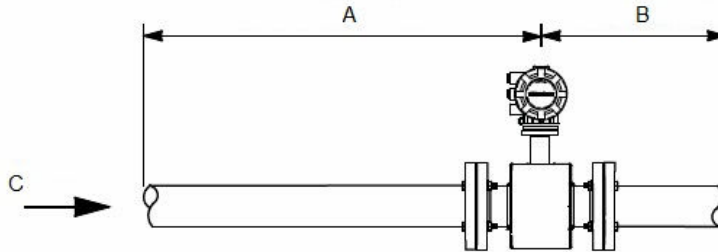
Table 5: Line size vs. velocity/rate

| Nominal line size in inches (mm) | Minimum/maximum flow rate | | | | | | | |
|----------------------------------|--------------------------------|-------------------------------|-----------|-----------------------------------|--------------------------------|--------------------------------|----------|-------------------------------|
| | Gallons per minute | | | | Liters per minute | | | |
| | at 0.04 ft/s (low-flow cutoff) | at 1 ft/s (min range setting) | at 3 ft/s | at 39.37 ft/s (max range setting) | at 0.012 m/s (low-flow cutoff) | at 0.3 m/s (min range setting) | at 1 m/s | at 12 m/s (max range setting) |
| ½ (15) | 0.038 | 0.947 | 2.841 | 37.287 | 0.141 | 3.529 | 11.76 | 141.15 |
| 1 (25) | 0.108 | 2.694 | 8.081 | 106.05 | 0.401 | 10.04 | 33.45 | 401.46 |
| 1½ (40) | 0.254 | 6.345 | 19.04 | 249.82 | 0.946 | 23.64 | 78.81 | 945.67 |
| 2 (50) | 0.418 | 10.459 | 31.38 | 411.77 | 1.559 | 38.97 | 129.89 | 1,558.7 |
| 2½ (65) | 0.597 | 14.923 | 44.77 | 587.51 | 2.224 | 55.60 | 185.33 | 2,224.0 |
| 3 (80) | 0.922 | 23.042 | 69.13 | 907.17 | 3.434 | 85.85 | 286.17 | 3,434.0 |
| 4 (100) | 1.587 | 39.679 | 119.04 | 1,562.2 | 5.913 | 147.84 | 492.78 | 5,913.4 |
| 5 (125) | 2.494 | 62.356 | 187.07 | 2,454.9 | 9.293 | 232.33 | 774.42 | 9,293.0 |
| 6 (150) | 3.602 | 90.048 | 270.14 | 3,545.2 | 13.42 | 335.50 | 1,118.3 | 13,420 |
| 8 (200) | 6.237 | 155.93 | 467.79 | 6,138.9 | 23.24 | 580.96 | 1,936.5 | 23,238 |
| 10 (250) | 9.831 | 245.78 | 737.34 | 9,676.3 | 36.63 | 915.73 | 3,052.4 | 36,629 |
| 12 (300) | 14.10 | 352.51 | 1,057.5 | 13,878 | 52.54 | 1,313.4 | 4,378.0 | 52,535 |
| 14 (350) | 16.87 | 421.71 | 1,265.1 | 16,603 | 62.85 | 1,571.2 | 5,237.3 | 62,848 |
| 16 (400) | 22.03 | 550.80 | 1,652.4 | 21,685 | 82.09 | 2,052.2 | 6,840.6 | 82,087 |
| 18 (450) | 27.89 | 697.19 | 2,091.6 | 27,448 | 103.90 | 2,597.6 | 8,658.6 | 103,903 |
| 20 (500) | 34.66 | 866.51 | 2,599.5 | 34,114 | 129.14 | 3,228.4 | 10,761 | 129,137 |
| 24 (600) | 50.13 | 1,253.2 | 3,759.6 | 49,339 | 186.77 | 4,669.2 | 15,564 | 186,769 |
| 30 (750) | 80.24 | 2,006.0 | 6,018.0 | 78,976 | 298.96 | 7,474.0 | 24,913 | 298,959 |
| 36 (900) | 117.40 | 2,935.0 | 8,805.1 | 115,553 | 437.42 | 10,935 | 36,451 | 437,416 |

Upstream and downstream piping

To ensure specified accuracy over widely varying process conditions, it is recommended to install the sensor with a minimum of five straight pipe diameters upstream and two pipe diameters downstream from the electrode plane.

Figure 1: Upstream and downstream straight pipe diameters



- A. Five pipe diameters (upstream)
- B. Two pipe diameters (downstream)
- C. Flow direction

Installations with reduced upstream and downstream straight runs are possible. In reduced straight run installations, the meter may not meet accuracy specifications. Reported flow rates will still be highly repeatable.

Sensor grounding

A reliable ground path is required between the sensor and the process fluid. Optional grounding rings, process reference electrode, and lining protectors are available with the sensor to ensure proper grounding. See [Table 93](#) and [Table 94](#).

Ordering Information

Rosemount 8712EM Transmitter



The Rosemount 8712EM Transmitter with “Best in Class” performance, coupled with advanced diagnostics, provides unparalleled process management capabilities. An optional backlit 2-line by 16-character display/local operator interface is available. The transmitter can be configured using the 15 button tactile keypad.

Note

The starred (★) offerings represent the most common options, and should be selected for best delivery.

Model code structure

Example model code with one selection out of each category: 8712EM R 1 A 1 N5 DA1 AX M4 C1 GM Q4 HR7 RT05

Table 6: Requirements - select one from each available choice

| Example code | Category |
|--------------|--|
| 8712EM | Base model—Magnetic Flowmeter Transmitter - Wall Mount |
| R | Mounting style (Table 8) |
| 1 | Power supply (Table 9) |
| A | Outputs (Table 10) |
| 1 | Conduit entry (Table 11) |

Table 7: Options - select only as needed

| Example code | Category |
|--------------|---|
| N5 | Hazardous area certifications (Table 12) |
| DA1 | Advanced diagnostics (Table 13) |
| AX | Discrete input/discrete output (Table 14) |
| M4 | Display (Table 15) |
| C1 | Miscellaneous (Table 16) |
| GM | Conduit electrical connections (Table 17) |
| Q4 | Quality certificate (Table 18) |
| HR7 | Revision configuration (Table 19) |
| RT05 | Remote cable kit (Table 20) |
| Yx | Quick Start Guide language (Table 21) |

Requirements

Table 8: Rosemount 8712EM mounting style

| Code | Description | |
|------------------|-------------|---|
| R ⁽¹⁾ | Wall Mount | ★ |

(1) Zn plated CS u-bolt assembly

Table 9: Rosemount 8712EM power supply

| Code | Description | |
|------------------|---------------------------------------|---|
| 1 | AC Power Supply (90 -250VAC, 50/60Hz) | ★ |
| 2 | DC Power Supply (12 - 42VDC) | ★ |
| 3 ⁽¹⁾ | DC Low Power Supply (12 - 30VDC) | ★ |

(1) Low Power available with Transmitter Output B and M only.

Table 10: Rosemount 8712EM outputs

| Code | Description | |
|------------------|--|---|
| A | 4-20mA Output with Digital HART Protocol & Scalable Pulse Output | ★ |
| B ⁽¹⁾ | 4-20mA Intrinsically Safe Output with Digital Hart Protocol & Intrinsically Safe Scalable Pulse Output | ★ |
| F | FOUNDATION Fieldbus Output & Scalable Pulse Output | ★ |

Table 10: Rosemount 8712EM outputs (continued)

| Code | Description | |
|------|---------------------------------------|---|
| M | Modbus RS-485 & Scalable Pulse Output | ★ |

(1) *Intrinsically safe outputs must be externally powered.*

Table 11: Rosemount 8712EM conduit entry

| Code | Description | |
|------|------------------|---|
| 1 | ½–14 NPT | ★ |
| 2 | M20–1.5 adapters | ★ |

Options

Note

These are not required, but they must be included in the model number if desired.

Table 12: Rosemount 8712EM hazardous area certifications

| Code | Description | |
|------|---|---|
| -(1) | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1 | ATEX Non-Sparking, ATEX Dust | ★ |
| NF | IECEX Dust | ★ |
| N7 | IECEX Non-Sparking, IECEX Dust | ★ |
| N2 | INMETRO Non-Sparking, INMETRO Dust | ★ |
| N3 | NEPSI Non-Sparking, NEPSI Dust | ★ |

(1) *Labeled with CSA(C/US), CE, C-tick and EAC.*

Table 13: Rosemount 8712EM advanced diagnostics

| Code | Description | |
|------|--|---|
| DA1 | Process Diagnostics, High Process Noise Detection, Ground/Wiring Fault Detection and Electrode Coating | ★ |
| DA2 | Smart Meter Verification | ★ |

Table 14: Rosemount 8712EM discrete input/discrete output

| Code | Description | |
|-------------------|---------------------------------------|---|
| AX ⁽¹⁾ | Two Discrete Channels (DI/DO 1, DO 2) | ★ |

(1) *Not available with FOUNDATION Fieldbus (output code F).*

Table 15: Rosemount 8712EM display

| Code | Description | |
|-------------------|-----------------------------------|---|
| M4 ⁽¹⁾ | LCD with Local Operator Interface | ★ |

Table 15: Rosemount 8712EM display (continued)

| Code | Description | |
|------|------------------|---|
| M5 | LCD Display only | ★ |

(1) Not available with FOUNDATION Fieldbus (output code F).

Table 16: Rosemount 8712EM miscellaneous

| Code | Description |
|-------------------|---|
| C1 | Custom Configuration (completed CDS form required with order) |
| D1 ⁽¹⁾ | High Accuracy Calibration |
| B6 | 316 SST Mounting Bracket with U-bolt Kit for 2-in. Pipe Mount |

(1) The high accuracy calibration requires a matched sensor. It is only available when ordered with a sensor. Spare or replacement orders are not available with the D1 option.

Table 17: Rosemount 8712EM conduit electrical connectors

| Code | Description ⁽¹⁾ |
|-------------------|---|
| GE ⁽²⁾ | M12, 4-Pin, Male Connector (eurofast®) |
| GM ⁽²⁾ | A Size Mini, 4-Pin, Male Connector (minifast®) |
| GT ⁽³⁾ | A Size, Spade Terminal Mini, 5-pin, Male Connector (minifast) |

(1) ½" NPT conduit entries only

(2) Communication only.

(3) Power and communication.

Table 18: Rosemount 8712EM quality certificate

| Code | Description | |
|------|---|---|
| Q4 | Calibration Data, per ISO 10474 3.1B / EN 10204 3.1 | ★ |

Table 19: Rosemount 8712EM revision configuration

| Code | Description | |
|------|-----------------|---|
| HR7 | HART Revision 7 | ★ |

Table 20: Rosemount 8712EM remote cable kit

| Code | Description ⁽¹⁾ | |
|---------------------|---|---|
| RTxx | Standard Temperature Component Cables (-20°C to 75°C) For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft, 35 = 350 ft, 40 = 400 ft, 45 = 450 ft, 50 = 500 ft | ★ |
| RHxx | Extended Temperature Component Cables (-50°C to 125°C) For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft, 35 = 350 ft, 40 = 400 ft, 45 = 450 ft, 50 = 500 ft | ★ |
| RCxx ⁽²⁾ | Combination Coil and Electrode Cable (-20°C to 75°C) For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft | ★ |

Table 20: Rosemount 8712EM remote cable kit (continued)

| Code | Description ⁽¹⁾ |
|---------------------|---|
| RSxx ⁽²⁾ | Submersible Combination Coil and Electrode Cable (-20°C to 75°C/dry, 60°C wet); only available for Ordinary Locations. For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft |

(1) Remote cable kits are shipped with the transmitter and not connected to the terminals.

(2) Only available for Ordinary Locations.

Table 21: Rosemount 8712EM Quick Start Guide language

| Code | Description |
|------|-------------------|
| YF | French |
| YG | German |
| YI | Italian |
| YM | Chinese–Mandarin |
| YP | Portuguese–Brazil |
| YR | Russian |
| YS | Spanish |

Rosemount 8732EM Transmitter



The Rosemount 8732EM Transmitter with “Best in Class” performance, coupled with advanced diagnostics, provides unparalleled process management capabilities. An optional backlit 2-line by 16-character display/local operator interface is available. The transmitter can be configured by optical switches to simplify adjustments in hazardous environments without removing the cover.

Note

The starred (★) offerings represent the most common options, and should be selected for best delivery.

Model code structure

Example model code with one selection out of each category:

8732EM T 1 A 1 K5 DA1 AX M4 C1 GM V2 Q4 HR7 RT05

Table 22: Requirements - select one from each available choice

| Example code | Category |
|--------------|---|
| 8732EM | Base model—Magnetic Flowmeter Transmitter - Field Mount |
| T | Mounting style (Table 24) |
| 1 | Power supply (Table 25) |

Table 22: Requirements - select one from each available choice (continued)

| Example code | Category |
|--------------|--------------------------|
| A | Outputs (Table 26) |
| 1 | Conduit entry (Table 27) |

Table 23: Options - select only as needed

| Example code | Category |
|--------------|---|
| K5 | Hazardous area certifications (Table 28) |
| DA1 | Advanced diagnostics (Table 29) |
| AX | Discrete input/discrete output (Table 30) |
| M4 | Display (Table 31) |
| C1 | Miscellaneous (Table 32) |
| GM | Conduit electrical connections (Table 33) |
| V2 | Paint (Table 34) |
| Q4 | Quality certificate (Table 35) |
| HR7 | Revision configuration (Table 36) |
| RT05 | Remote cable kit (Table 37) |
| – | Quick Start Guide language (Table 38) |

Requirements

Table 24: Rosemount 8732EM mounting style

| Code | Description | |
|------------------|----------------------|---|
| T | Integral Field Mount | ★ |
| R ⁽¹⁾ | Remote Field Mount | ★ |

(1) Zn plated CS mounting bolts and 304L bracket.

Table 25: Rosemount 8732EM power supply

| Code | Description | |
|------------------|---------------------------------------|---|
| 1 | AC Power Supply (90 -250VAC, 50/60Hz) | ★ |
| 2 | DC Power Supply (12 - 42VDC) | ★ |
| 3 ⁽¹⁾ | DC Low Power Supply (12 - 30VDC) | ★ |

(1) Low Power available with Transmitter Output B and M only.

Table 26: Rosemount 8732EM outputs

| Code | Description | |
|------------------|--|---|
| A | 4-20mA Output with Digital HART Protocol & Scalable Pulse Output | ★ |
| B ⁽¹⁾ | 4-20mA Intrinsically Safe Output with Digital Hart Protocol & Intrinsically Safe Scalable Pulse Output | ★ |
| F | FOUNDATION Fieldbus Output & Scalable Pulse Output | ★ |

Table 26: Rosemount 8732EM outputs (continued)

| Code | Description | |
|------|---------------------------------------|---|
| M | Modbus RS-485 & Scalable Pulse Output | ★ |

(1) *Intrinsically safe outputs must be externally powered.*

Table 27: Rosemount 8732EM conduit entry

| Code | Description | |
|------|---|---|
| 1 | ½-14 NPT – Integral mount qty (2), remote mount qty (4) | ★ |
| 2 | M20-1.5 – Integral mount qty (2), remote mount qty (4) | ★ |
| 4 | ½-14 NPT, Additional Entry – Integral mount qty (3), remote mount qty (5) | ★ |
| 5 | M20-1.5, Additional Entry – Integral mount qty (3), remote mount qty (5) | ★ |

Options

Note

These are not required, but they must be included in the model number if desired.

Table 28: Rosemount 8732EM hazardous area certifications

| Code | Description | |
|-------|--|---|
| -(1) | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| K5 | US Approvals, Class I Div 1, Explosion proof and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| K6 | US/Canadian Approvals, Flameproof with Increased Safety and Dust | ★ |
| KU(2) | US Approvals, Class I Div 1, Explosion proof and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1 | ATEX Non-Sparking, ATEX Dust | ★ |
| K1 | ATEX Flameproof with Increased Safety, ATEX Dust | ★ |
| NF | IECEX Dust | ★ |
| N7 | IECEX Non-Sparking, IECEX Dust | ★ |
| K7 | IECEX Flameproof with Increased Safety, IECEX Dust | ★ |
| N8 | EAC Non-Sparking; EAC Dust | ★ |
| K8 | EAC Flameproof with Increased Safety; EAC Dust | ★ |
| N2 | INMETRO Non-Sparking, INMETRO Dust | ★ |
| K2 | INMETRO Flameproof with Increased Safety, INMETRO Dust | ★ |
| N3 | NEPSI Non-Sparking; NEPSI Dust | ★ |
| K3 | NEPSI Flameproof with Increased Safety; NEPSI Dust | ★ |
| K9 | KTL Flameproof with Increased Safety, KTL Dust | ★ |

(1) *Labeled with CSA(C/US), CE, C-tick and EAC.*

(2) *Modbus only.*

Table 29: Rosemount 8732EM advanced diagnostics

| Code | Description | |
|------|--|---|
| DA1 | Process Diagnostics, High Process Noise Detection, Ground/Wiring Fault Detection and Electrode Coating | ★ |
| DA2 | Smart Meter Verification | ★ |

Table 30: Rosemount 8732EM discrete input/discrete output

| Code | Description | |
|----------------------|---------------------------------------|---|
| AX ⁽¹⁾⁽²⁾ | Two Discrete Channels (DI/DO 1, DO 2) | ★ |

(1) Only available with conduit entry code 4 or 5.

(2) Not available with FOUNDATION Fieldbus (output code F).

Table 31: Rosemount 8732EM display

| Code | Description | |
|----------------------|---|---|
| M4 ⁽¹⁾ | Local Operator Interface | ★ |
| M5 | LCD Display only | ★ |
| M6 ⁽²⁾⁽¹⁾ | Local Operator Interface (Polycarbonate lens) | |
| M7 ⁽²⁾ | LCD Display only (Polycarbonate lens) | |

(1) Not available with FOUNDATION Fieldbus (output code F).

(2) Ordinary locations only.

Table 32: Rosemount 8732EM miscellaneous

| Code | Description |
|-------------------|---|
| C1 | Custom Configuration (completed CDS form required with order) |
| D1 ⁽¹⁾ | High Accuracy Calibration |
| SH ⁽²⁾ | 316 SST Electronics Housing and 316 SST Bracket (Remote mount only) |
| B6 | 316 SST Mounting Bracket with 4-bolt Kit for 2-in. Pipe Mount |

(1) The high accuracy calibration requires a matched sensor. It is only available when ordered with a sensor. Spare or replacement orders are not available with the D1 option.

(2) Not available with US/Canadian Approvals N5, K5, N6, KU, or Ordinary Location.

Table 33: Rosemount 8732EM conduit electrical connectors

| Code | Description ⁽¹⁾ |
|-------------------|---|
| GE ⁽²⁾ | M12, 4-Pin, Male Connector (eurofast [®]) |
| GM ⁽²⁾ | A Size Mini, 4-Pin, Male Connector (minifast [®]) |
| GT ⁽³⁾ | A Size, Spade Terminal Mini, 5-pin, Male Connector (minifast) |

(1) ½" NPT conduit entries only.

(2) Communication only.

(3) Power and communication.

Table 34: Rosemount 8732EM paint

| Code | Description |
|------|--|
| V2 | Offshore/Near Shore Marine Paint (3 layer epoxy) |

Table 35: Rosemount 8732EM quality certificate

| Code | Description | |
|------|---|---|
| Q4 | Calibration Data, per ISO 10474 3.1B / EN 10204 3.1 | ★ |

Table 36: Rosemount 8732EM revision configuration

| Code | Description | |
|------|-----------------|---|
| HR7 | HART Revision 7 | ★ |

Table 37: Rosemount 8732EM remote cable kit

| Code | Description ⁽¹⁾ | |
|---------------------|---|---|
| RTxx | Standard Temperature Component Cables (-20°C to 75°C) For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft, 35 = 350 ft, 40 = 400 ft, 45 = 450 ft, 50 = 500 ft | ★ |
| RHxx | Extended Temperature Component Cables (-50°C to 125°C) For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft, 35 = 350 ft, 40 = 400 ft, 45 = 450 ft, 50 = 500 ft | ★ |
| RCxx ⁽²⁾ | Combination Coil and Electrode Cable (-20°C to 75°C) For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft | ★ |
| RSxx ⁽²⁾ | Submersible Combination Coil and Electrode Cable (-20°C to 75°C/dry, 60°C wet); only available for Ordinary Locations. For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft | ★ |

(1) Remote cable kits are shipped with the transmitter and not connected to the terminals.

(2) Only available for Ordinary Locations.

Table 38: Rosemount 8732EM Quick Start Guide language

| Code | Description |
|------|-------------------|
| YF | French |
| YG | German |
| YI | Italian |
| YM | Chinese–Mandarin |
| YP | Portuguese–Brazil |
| YR | Russian |
| YS | Spanish |

Rosemount 8705-M Flanged Sensor



All flanged sensors are fabricated from stainless and carbon steel and welded to provide a hermetic seal that protects against moisture and other contaminants. Sizes range from ½-in. (15 mm) to 36-in. (900 mm). The sealed housing ensures maximum sensor reliability by protecting all internal components and wiring from the most hostile environments.

Note

The starred (★) offerings represent the most common options, and should be selected for best delivery.

Model code structure

Example model code with one selection out of each category: 8705 T S A 040 C 1 M0 K5 PD G1 D1 V1 Q8 WG

Table 39: Requirements - select one from each available choice

| Example code | Category |
|--------------|---|
| 8705 | Base model |
| T | Lining material (Table 42) |
| S | Electrode material (Table 43) |
| A | Electrode type (Table 44) |
| 040 | Line size (Table 45) |
| C | Flange type and material (Table 46) |
| 1 | Flange rating (Table 47) |
| M0 | Coil housing configuration (Table 48) |

Table 40: Options - select only as needed

| Example code | Category |
|--------------|--|
| K5 | Hazardous area certifications (Table 49) |
| PD | Certifications (Table 50) |
| Gx/Lx | Grounding rings (Table 51) or lining protectors (Table 52) |
| D1 | Miscellaneous (Table 53) |
| V1 | Paint (Table 54) |
| Q8 | Quality certificates (Table 55) |
| WG | Witness inspection (Table 56) |

Requirements

Table 41: Rosemount 8705-M

| Code | Product description |
|------|-----------------------------------|
| 8705 | Magnetic Flanged Flowmeter Sensor |

Table 42: Rosemount 8705-M lining material

| Code | Product description | |
|------------------|---|---|
| | Note Availability based on line size and flange type/rating. See Table 57 (slip on) and Table 58 (weld neck) | |
| T ⁽¹⁾ | PTFE | ★ |
| p ⁽²⁾ | Polyurethane | ★ |
| N ⁽³⁾ | Neoprene | ★ |
| L ⁽³⁾ | Linatex - Natural Rubber | |
| A ⁽⁴⁾ | PFA | |
| F ⁽⁵⁾ | ETFE | |
| D ⁽⁶⁾ | Adiprene | |
| K ⁽⁷⁾ | PFA+ | |

(1) PTFE available in line sizes:

- ½-in. to 24-in. (15 mm to 600 mm): ASME Class 150, Class 300, Class 600 (derated), and EN 1092-1
- 30-in. and 36-in. (750 mm and 900 mm) AWWA Class D, ASME Class 150, and MSS SP44 Class 150.

(2) Polyurethane available in line sizes:

- 1-in. to 24-in. (25 mm to 600 mm) ASME Class 150, Class 300, Class 600 (fully rated) and EN 1092-1
- 30-in. and 36-in. (750 mm and 900 mm) AWWA Class D and MSS SP44 Class 150
- 1-in. to 16-in. (25 mm to 400 mm) ASME Class 900
- 1½-in. to 12-in. (25 mm to 300 mm) ASME Class 1500

Consult Technical Support for ASME Class 2500.

(3) Neoprene and Linatex available in line sizes:

- 1-in. to 24-in. (25 mm to 600 mm) ASME Class 150, Class 300, Class 600 (fully rated) and EN 1092-1
- 30-in. and 36-in. (750 mm and 900 mm) AWWA Class D, ASME Class 150, and MSS SP44 Class 150
- 1-in. to 12-in. (25 mm to 300 mm) ASME Class 900 1½-in. to 12-in. (25 mm to 300 mm) ASME Class 1500
- 1½-in. to 8-in. (25 mm to 200 mm) ASME Class 2500.

(4) PFA available in line sizes:

- ½-in. to 12-in. (15 mm to 300 mm) ASME Class 150, Class 300, and EN 1092-1 Flanges
- 14-in. (350 mm) ASME Class 150

Not available with coil housing codes M2 or M4.

(5) ETFE available in line sizes:

- ½-in. to 14-in. (15 mm to 350 mm) ASME Class 150, ASME Class 300, and EN 1092-1
- 16-in. (400 mm) ASME Class 150 only.
- 1-in. to 10-in. (25 mm to 250 mm) ASME Class 600 (derated).

(6) For Adiprene, consult technical support for available line sizes.

(7) PFA+ available in line sizes ½-in. to 14-in. (50 mm to 350 mm) ASME Class 150, Class 300, and EN 1092-1 Flanges.

Table 43: Rosemount 8705-M electrode material

| Code | Product description | |
|------|--|---|
| S | 316L Stainless Steel | ★ |
| H | Nickel Alloy 276 (UNS N10276) | ★ |
| T | Tantalum | ★ |
| P | 80% Platinum - 20% Iridium | ★ |
| N | Titanium | ★ |
| W | Tungsten-Carbide Coated 316L | |
| Y | Tungsten-Carbide Coated Nickel Alloy 276 | |

Table 44: Rosemount 8705-M electrode type

| Code | Product description | |
|------------------|--|---|
| A | 2 Measurement Electrodes - Standard | ★ |
| E | 2 Measurement Electrodes plus 1 Reference Electrode - Standard | ★ |
| B ⁽¹⁾ | 2 Measurement Electrodes - Bulletnose | |
| F ⁽¹⁾ | 2 Measurement Electrodes plus 1 Reference Electrode - Bulletnose | |
| T | 2 Measurement Electrodes - Flat Head | |
| U | 2 Measurement Electrodes plus 1 Reference Electrode - Flat Head | |

(1) Not available in Tantalum; not available in ½-in.

Table 45: Rosemount 8705-M line size

| Code | Line size | Liner availability | | | | | | |
|--|-----------------|--------------------|-------------|---------------------|------------|-------------|-----------------|-------------|
| | | PTFE code T | Poly code P | Neo./Lin. codes N/L | PFA code A | ETFE code F | Adiprine code D | PFA+ code K |
| In this table, the starred (★) offerings represent available liner based on line size. Consult factory for additional Flange Type/Rating sensor availability | | | | | | | | |
| 005 | ½-in. (15 mm) | ★ | | | ★ | ★ | | ★ |
| 010 | 1-in. (25 mm) | ★ | ★ | ★ | ★ | ★ | | ★ |
| 015 | 1½-in. (40 mm) | ★ | ★ | ★ | ★ | ★ | | ★ |
| 020 | 2-in. (50 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 025 | 2½-in. (65 mm) | ★ | | ★ | ★ | ★ | | ★ |
| 030 | 3-in. (80 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 040 | 4-in. (100 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 050 | 5-in. (125 mm) | ★ | | ★ | ★ | ★ | | ★ |
| 060 | 6-in. (150 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 080 | 8-in. (200 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 100 | 10-in. (250 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 120 | 12-in. (300 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 140 | 14-in. (350 mm) | ★ | ★ | ★ | ★ | ★ | | ★ |

Table 45: Rosemount 8705-M line size (continued)

| Code | Line size | Liner availability In this table, the starred (★) offerings represent available liner based on line size. Consult factory for additional Flange Type/Rating sensor availability | | | | | | |
|------|-----------------|---|-------------|---------------------|------------|-------------|-----------------|-------------|
| | | PTFE code T | Poly code P | Neo./Lin. codes N/L | PFA code A | ETFE code F | Adiprine code D | PFA+ code K |
| 160 | 16-in. (400 mm) | ★ | ★ | ★ | | ★ | | |
| 180 | 18-in. (450 mm) | ★ | ★ | ★ | | | | |
| 200 | 20-in. (500 mm) | ★ | ★ | ★ | | | | |
| 240 | 24-in. (600 mm) | ★ | ★ | ★ | | | | |
| 300 | 30-in. (750 mm) | ★ | ★ | ★ | | | | |
| 360 | 36-in. (900 mm) | ★ | ★ | ★ | | | | |

Table 46: Rosemount 8705-M flange type and material

| Code | Product description | |
|------|--|---|
| C | Slip-On, Raised-Face, Carbon Steel | See Table 57 for Slip-on availability |
| S | Slip-On, Raised-Face, 304/304L Stainless Steel | |
| P | Slip-On, Raised-Face, 316/316L Stainless Steel | |
| F | Slip-On, Flat-Face, Carbon Steel | |
| G | Slip-On, Flat-Face, 304/304L Stainless Steel | |
| H | Slip-On, Flat-Face, 316/316L Stainless Steel | |
| D | Weld-Neck, Raised-Face, Carbon Steel | See Table 58 for Weld-neck availability |
| T | Weld-Neck, Raised-Face, 304/304L Stainless Steel | |
| R | Weld-Neck, Raised-Face, 316/316L Stainless Steel | |
| J | Weld-Neck, RTJ, Carbon Steel | |
| K | Weld-Neck, RTJ, 304/304L Stainless Steel | |
| L | Weld-Neck, RTJ, 316/316L Stainless Steel | |

Table 47: Rosemount 8705-M flange rating

| Code | Product description |
|------------------|---|
| 1 | ASME B16.5, Class 150 (½ thru 24-in.); AWWA Class D (30 and 36-in.) |
| 2 | Class 150 Line Size 30 and 36-in. only; (MSS SP44 with Slip-On Flange or B16.47 Series A with Weld-Neck Flange) |
| 3 | ASME B16.5, Class 300 (½ thru 24-in.); (ASME B16.47 Class 300 for 30 and 36-in. Weld-Neck Flange only) |
| 6 | ASME B16.5, Class 600 (maximum working pressure: derated 1000 psig) |
| 7 | ASME B16.5, Class 600 |
| 9 ⁽¹⁾ | ASME B16.5, Class 900 |
| M ⁽¹⁾ | ASME B16.5, Class 1500 |
| N ⁽¹⁾ | ASME B16.5, Class 2500 |
| D | EN 1092-1, PN10 |

Table 47: Rosemount 8705-M flange rating (continued)

| Code | Product description |
|------------------|---------------------|
| E | EN 1092-1, PN16 |
| F | EN 1092-1, PN25 |
| H | EN 1092-1, PN40 |
| K ⁽²⁾ | AS2129, Table D |
| L ⁽²⁾ | AS2129, Table E |
| p ⁽³⁾ | JIS B 2220, 10K |
| R ⁽³⁾ | JIS B 2220, 20K |
| T ⁽⁴⁾ | JIS B 2220, 40K |
| U ⁽⁵⁾ | AS4087, PN16 |
| W ⁽⁵⁾ | AS4087, PN21 |
| Y ⁽⁵⁾ | AS4087, PN35 |

(1) Not available with lining protectors.

(2) Not available with PFA (A) liner; not available with lining protectors.

(3) Available line sizes ½-in. to 24-in. (15 mm to 600 mm); not available with lining protectors.

(4) Available line sizes ½-in. to 16-in. (15 mm to 400 mm); not available with lining protectors.

(5) Available in 2-in. to 4-in. (50 mm to 100 mm) and 6-in. to 24-in. (150 mm to 600 mm) line sizes; not available with lining protectors.

Table 48: Rosemount 8705-M housing configuration

| Code | Product description | |
|----------------------|---|---|
| W0 ⁽¹⁾⁽²⁾ | Sealed, Welded Housing with Legacy Terminal Block | ★ |
| M0 ⁽³⁾ | Sealed, Welded Housing with Field Replaceable Terminal Block/Socket Module | ★ |
| M1 ⁽³⁾⁽⁴⁾ | Sealed, Welded Housing with Pressure Relief Port and Field Replaceable Terminal Block/Socket Module | |
| M2 ⁽³⁾ | Sealed, Welded Housing with Sealed Electrode Compartments and Field Replaceable Terminal Block/Socket Module | |
| M4 ⁽³⁾ | Sealed, Welded Housing with Sealed Electrode Compartments with Cap and Port with Field Replaceable Terminal Block/Socket Module | |

(1) Available for Ordinary Locations or "EN" NEPSI China Domestic Only.

(2) Consult Product Data Sheet 00813-0100-4727 for technical details.

(3) Consult Technical Support for use with Ordinary Locations.

(4) Pressure relief valve must be installed appropriately to maintain the approvals on the meter. Recovery piping diameter must not be smaller than M6 to avoid building pressure after the valve.

Options

Note

These are not required, but they must be included in the model number if desired.

Table 49: Rosemount 8705-M hazardous area certifications

| Code | Description | |
|-------------------|---|---|
| -(1) | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K5 ⁽²⁾ | US Approvals, Class I Div 1, Explosion proof with I.S. Electrodes; and Dust | ★ |

Table 49: Rosemount 8705-M hazardous area certifications (continued)

| Code | Description | |
|-------------------|---|---|
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K6 | US/Canadian Approvals, Increased Safety with I.S. Electrodes; and Dust | ★ |
| KU ⁽²⁾ | US Approvals, Class I Div 1, Explosion proof with I.S. Electrodes; and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1 | ATEX Non-Sparking with I.S. Electrodes; ATEX Dust | ★ |
| K1 | ATEX Increased Safety with I.S. Electrodes; ATEX Dust | ★ |
| NF | IECEX Dust | ★ |
| N7 | IECEX Non-Sparking with I.S. Electrodes; IECEX Dust | ★ |
| K7 | IECEX Increased Safety with I.S. Electrodes; IECEX Dust | ★ |
| N8 | EAC Non-Sparking with I.S. Electrodes; EAC Dust | ★ |
| K8 | EAC Increased Safety with I.S. Electrodes; EAC Dust | ★ |
| N2 | INMETRO Non-Sparking with I.S. Electrodes; INMETRO Dust | ★ |
| K2 | INMETRO Increased Safety with I.S. Electrodes; INMETRO Dust | ★ |
| N3 | NEPSI Non-Sparking with I.S. Electrodes; NEPSI Dust | ★ |
| K3 | NEPSI Increased Safety with I.S. Electrodes; NEPSI Dust | ★ |
| K9 | KTL Flameproof with Increased Safety, KTL Dust | ★ |

(1) Labeled with CSA(C/US), CE, C-tick and EAC.

(2) Available line sizes ½-in. to 12-in. (15 mm to 300 mm).

Table 50: Rosemount 8705-M certifications

| Code | Product description |
|-------------------|--|
| CR | Canadian Registration Number (CRN) Certification |
| PD | Pressure Equipment Directive Certification (PED) |
| DW ⁽¹⁾ | NSF Drinking Water Certification |

(1) Available liners PTFE (T) all line sizes or Polyurethane (P) 4-in. or larger; electrode materials 316L SST (S) or Ni-Alloy 276 (H).

Table 51: Rosemount 8705-M grounding rings

| Code | Product description ⁽¹⁾ |
|------|--|
| G1 | (2) 316L SST Ground Rings |
| G2 | (2) Nickel Alloy 276 (UNS N10276) Ground Rings |
| G3 | (2) Titanium Ground Rings |
| G4 | (2) Tantalum Ground Rings |
| G5 | (1) 316L SST Ground Ring |
| G6 | (1) Nickel Alloy 276 (UNS N10276) Ground Ring |
| G7 | (1) Titanium Ground Ring |
| G8 | (1) Tantalum Ground Ring |

(1) Grounding Rings and Lining Protectors provide the same process reference function.

Table 52: Rosemount 8705-M lining protectors

| Code | Product description ⁽¹⁾ |
|------|---|
| L1 | (2) 316L SST Lining Protectors |
| L2 | (2) Nickel Alloy 276 (UNS N10276) Lining Protectors |
| L3 | (2) Titanium Lining Protectors |
| L5 | (1) 316L SST Lining Protector |
| L6 | (1) Nickel Alloy 276 (UNS N10276) Lining Protector |
| L7 | (1) Titanium Lining Protector |

(1) *Grounding Rings and Lining Protectors provide the same process reference function.*

Table 53: Rosemount 8705-M miscellaneous

| Code | Product description |
|--------------------|---|
| B3 | Integral Mount with 8732EM Transmitter |
| D1 ⁽¹⁾ | High Accuracy Calibration (0.15% of rate for matched sensor and transmitter). |
| D3 | Low Power Calibration |
| H1 ⁽²⁾ | Lay-length matching 8701 using spool piece/spacer |
| H2 ⁽³⁾ | Lay-length matching 8701 |
| J1 ⁽⁴⁾ | M20–1.5 Conduit Entries |
| P05 ⁽⁵⁾ | 5 Point Calibration Verification |
| P10 ⁽⁶⁾ | 10 Point Calibration Verification |
| SH ⁽⁷⁾ | 316 SST Coil Housing and Remote Junction Box |
| SJ ⁽⁷⁾ | 316 SST Remote Junction Box |

(1) *The high accuracy calibration requires a matched transmitter. It is only available when ordered with a transmitter. Spare or replacement orders are not available with the D1 option.*

(2) *Available line sizes ½-in. to 12-in. (15 mm to 300 mm).*

(3) *Available in sensor line sizes ½-in. to 16-in. (15 mm to 400 mm).*

(4) *M20 conduit adapters are supplied for Ordinary Locations and US/Canadian Approvals N5, N6, K5 and KU.*

(5) *Available for: ½-in. to 24-in. (15 mm to 600 mm) Velocities 1, 3, 5, 7, 10 ft/s; 30-in. (700 mm) Velocities 1, 3, 5, 7, 9.5 ft/s; 36-in. (900 mm) Velocities 1, 2, 3, 5, 6.5 ft/s.*

(6) *Available for: ½-in. to 24-in. (15 mm to 600 mm) Velocities 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ft/s; 30-in. to 36-in. (700 mm to 900 mm) not available.*

(7) *Not available with US/Canadian Approvals N5, K5, N6, or KU.*

Table 54: Rosemount 8705-M paint

| Model | Product description | ★ |
|-------|--|---|
| V1 | Coal Tar Paint | |
| V2 | Offshore/Near Shore Marine Paint (3 layer epoxy) | |

Table 55: Rosemount 8705-M quality certificates

| Code | Product description | ★ |
|------|---|---|
| Q4 | Calibration Certificate per ISO 10474 3.1B/EN 10204 3.1 | |
| Q5 | Hydrostatic Test Certificate | |
| Q8 | Material Traceability per ISO 10474 3.1B/EN 10204 3.1 | |

Table 55: Rosemount 8705-M quality certificates (continued)

| Code | Product description | ★ |
|--------------------|--|---|
| Q25 | Certificate of Compliance to NACE MR0103 | |
| Q66 | Weld Procedure Package (Weld Map, Weld Procedure Specification, Weld Procedure Qualification Record, Welder Performance Qualification) | |
| Q70 | NDE Weld Examination Inspection Certificate, ISO 10474 3.1B | |
| Q71 ⁽¹⁾ | NDE Weld Examination Inspection Certificate, ISO 10474 3.1B with images | |
| Q76 | Positive Material Identification (PMI) on flanges and pipe, per ASTM E1476-97 | |

(1) Weld-Neck only.

Table 56: Rosemount 8705-M witness inspection

| Code | Product description | ★ |
|------|---------------------|---|
| WG | Witness Inspection | |

Slip-on flanges

Table 57: Slip on flange options by line size

| Size code | Flange code and rating | | | | | | | | | | | | | | | | | |
|-----------|------------------------|-------------------------------|----------------|------------------------|---------------------------|----------------|---------|---------|---------|---------|----------------|----------------|---------|---------|---------|-------------|-------------|-------------|
| | 1 | 2 | 3 | 6 | 7 | 9 | D | E | F | H | K | L | P | R | T | U | W | Y |
| | ASME Class 150 | MSS-SP44 Class 150 (30", 36") | ASME Class 300 | ASME Class 600 Derated | ASME Class 600 Full Rated | ASME Class 900 | EN PN10 | EN PN16 | EN PN25 | EN PN40 | AS2129 Table D | AS2129 Table E | JIS 10K | JIS 20K | JIS 40K | AS4087 PN16 | AS4087 PN21 | AS4087 PN35 |
| 005 | ★ | | ★ | ★ | ★ | | | | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 010 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 015 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 020 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 025 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 030 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 040 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 050 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 060 | ★ | | ★ | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 080 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 100 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 120 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 140 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 160 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |

Table 57: Slip on flange options by line size (continued)

| Size code | Flange code and rating | | | | | | | | | | | | | | | | | |
|-----------|------------------------|-------------------------------|----------------|------------------------|---------------------------|----------------|---------|---------|---------|---------|----------------|----------------|---------|---------|---------|-------------|-------------|-------------|
| | 1 | 2 | 3 | 6 | 7 | 9 | D | E | F | H | K | L | P | R | T | U | W | Y |
| | ASME Class 150 | MSS-SP44 Class 150 (30", 36") | ASME Class 300 | ASME Class 600 Derated | ASME Class 600 Full Rated | ASME Class 900 | EN PN10 | EN PN16 | EN PN25 | EN PN40 | AS2129 Table D | AS2129 Table E | JIS 10K | JIS 20K | JIS 40K | AS4087 PN16 | AS4087 PN21 | AS4087 PN35 |
| 180 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| 200 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| 240 | ★ | | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| 300 | ★ ⁽¹⁾ | ★ | ★ | | | | | | | | ★ | ★ | | | | ★ | ★ | ★ |
| 360 | ★ ⁽¹⁾ | ★ | ★ | | | | ★ | ★ | | | ★ | ★ | | | | ★ | ★ | ★ |

(1) AWWA Class D

Weld neck flanges

Table 58: Weld neck flange options by line size

| Size code | Flange code and rating | | | | | | | | | | | | |
|-----------|------------------------|---------------------------|----------------|------------------------|---------------------------|----------------|---------|---------|---------|---------|-----------------|-----------------|--|
| | 1 | 2 | 3 | 6 | 7 | 9 | D | E | F | H | M | N | |
| | ASME Class 150 | ASME Class 150 (30", 36") | ASME Class 300 | ASME Class 600 Derated | ASME Class 600 Full Rated | ASME Class 900 | EN PN10 | EN PN16 | EN PN25 | EN PN40 | ASME Class 1500 | ASME Class 2500 | |
| 005 | ★ | | ★ | | | | | | | ★ | | | |
| 010 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | | |
| 015 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | |
| 020 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | |
| 025 | | | | | | | | | | | ★ | ★ | |
| 030 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | |
| 040 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | |
| 050 | | | | | | | | | | | | | |
| 060 | ★ | | ★ | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | ★ | |
| 080 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 100 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 120 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |

Table 58: Weld neck flange options by line size (continued)

| Size code | Flange code and rating | | | | | | | | | | | |
|-----------|------------------------|---------------------------|----------------|------------------------|---------------------------|----------------|---------|---------|---------|---------|-----------------|-----------------|
| | 1 | 2 | 3 | 6 | 7 | 9 | D | E | F | H | M | N |
| | ASME Class 150 | ASME Class 150 (30", 36") | ASME Class 300 | ASME Class 600 Derated | ASME Class 600 Full Rated | ASME Class 900 | EN PN10 | EN PN16 | EN PN25 | EN PN40 | ASME Class 1500 | ASME Class 2500 |
| 140 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 160 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 180 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 200 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 240 | ★ | | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | | |
| 300 | | ★(1) | ★(1) | | | | | | | | | |
| 360 | | ★(1) | ★(1) | | | | ★ | ★ | ★ | | | |

(1) ASME B16.47 Series A.

Rosemount 8711-M/L Wafer Sensors



The flangeless design of the wafer sensor makes it an economical, compact, and lightweight alternative to flanged magnetic flowmeters. Alignment spacers are provided with every 8711-M/L which help center the sensor in the process line simplifying installation.

Note

The starred (★) offerings represent the most common options, and should be selected for best delivery.

Model code structure

Example model code with one selection out of each category: 8711 S S A 040 L 1 K5 G5 MK3 PD P05 Q4 WG

Table 59: Requirements - select one from each available choice

| Example code | Category |
|--------------|---|
| 8711 | Base model—Rosemount Wafer Sensors. |
| S | Lining material (Table 61) |
| S | Electrode material (Table 62) |
| A | Electrode type (Table 63) |
| 040 | Line size (Table 64) |
| L | Transmitter mounting configuration (Table 65) |
| 1 | Mating pipe flange pressure rating (Table 66) |

Table 60: Options - select only as needed

| Example code | Category |
|--------------|--|
| K5 | Hazardous area certifications (Table 67) |
| G5 | Grounding rings (Table 68) |
| MK3 | Mounting hardware (Table 69) |
| PD | Certifications (Table 70) |
| P05 | Other options (Table 71) |
| Q4 | Quality certificates (Table 72) |
| WG | Witness inspection (Table 71) |

Requirements

Table 61: Rosemount 8711-M/L Wafer Sensor lining material

| Code | Product description | |
|------|---------------------|---|
| S | PTFE | ★ |
| F | ETFE | |

Table 62: Rosemount 8711-M/L Wafer Sensor electrode material

| Code | Product description | |
|------|-------------------------------|---|
| S | 316L Stainless Steel | ★ |
| H | Nickel Alloy 276 (UNS N10276) | ★ |
| T | Tantalum | ★ |
| P | 80% Platinum - 20% Iridium | ★ |
| N | Titanium | ★ |

Table 63: Rosemount 8711-M/L Wafer Sensor electrode type

| Code | Product description | |
|------|---|---|
| A | 2 Measurement Electrodes | ★ |
| E | 2 Measurement Electrodes plus 1 Reference Electrode | |
| B | 2 Bulletnose Measurement Electrodes | |
| F | 2 Measurement Bulletnose Electrodes plus 1 Reference Bulletnose Electrode | |

Table 64: Rosemount 8711-M/L Wafer Sensor line size

| Code | Product description |
|------|---------------------|
| 015 | 1½-in. (40 mm) |
| 020 | 2-in. (50 mm) |
| 030 | 3-in. (80 mm) |
| 040 | 4-in. (100 mm) |
| 060 | 6-in. (150 mm) |
| 080 | 8-in. (200 mm) |

Table 65: Rosemount 8711-M/L Wafer Sensor - transmitter mounting configuration

| Code | Product description |
|----------------------|--|
| R ⁽¹⁾ (2) | Remote Mount with Legacy Terminal Block |
| U ⁽¹⁾ (2) | Integral Mount IMS Cable Assembly for use with an 8732EM Transmitter |
| L | Remote Mount with Field Replaceable Terminal Block |
| M ⁽³⁾ | Integral Mount Socket Module/Direct Lead Assembly for use with an 8732EM Transmitter |

(1) Available for Ordinary Locations or "EN" NEPSI China Domestic only.
 (2) Reference Product Data Sheet 00813-0100-4727 for technical details.
 (3) Consult Technical Support for use with Ordinary Locations.

Table 66: Rosemount 8711-M/L Wafer Sensor mating pipe flange pressure rating

| Code | Product description |
|------|--|
| | Note Includes three alignment spacers (where applicable) |
| 1 | ASME, Class 150 |
| 3 | ASME, Class 300 |
| D | EN1092-1, PN10 |
| E | EN1092-1, Flange Rating up to PN16 |
| F | EN1092-1, Flange Rating up to PN25 |
| H | EN1092-1, Flange Rating up to PN40 |
| P | JIS B2220, 10K |
| R | JIS B2220, 20K |
| U | AS4087, PN16 |
| W | AS4087, PN21 |
| Y | AS4087, PN35 |

Options

Note

These are not required, but they must be included in the model number if desired.

Table 67: Rosemount 8711-M/L Wafer Sensor hazardous area certifications

| Code | Description | |
|------|---|---|
| -(1) | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K5 | US Approvals, Class I Div 1, Explosion proof with I.S. Electrodes; and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K6 | US/Canadian Approvals, Increased Safety with I.S. Electrodes; and Dust | ★ |
| KU | US Approvals, Class I Div 1, Explosion proof with I.S. Electrodes; and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1 | ATEX Non-Sparking with I.S. Electrodes; ATEX Dust | ★ |
| K1 | ATEX Increased Safety with I.S. Electrodes; ATEX Dust | ★ |
| NF | IECEX Dust | ★ |
| K9 | KTL Flameproof with Increased Safety, KTL Dust | ★ |
| N7 | IECEX Non-Sparking with I.S. Electrodes; IECEX Dust | ★ |
| K7 | IECEX Increased Safety with I.S. Electrodes; IECEX Dust | ★ |
| N8 | EAC Non-Sparking with I.S. Electrodes; EAC Dust | ★ |
| K8 | EAC Increased Safety with I.S. Electrodes; EAC Dust | ★ |
| N2 | INMETRO Non-Sparking with I.S. Electrodes; INMETRO Dust | ★ |
| K2 | INMETRO Increased Safety with I.S. Electrodes; INMETRO Dust | ★ |

Table 67: Rosemount 8711-M/L Wafer Sensor hazardous area certifications (continued)

| Code | Description | |
|------|---|---|
| N3 | NEPSI Non-Sparking with I.S. Electrodes; NEPSI Dust | ★ |
| K3 | NEPSI Increased Safety with I.S. Electrodes; NEPSI Dust | ★ |

(1) Labeled with CSA(C/US), CE, C-tick and EAC.

Table 68: Rosemount 8711-M/L Wafer Sensor grounding rings

| Code | Product description ⁽¹⁾ |
|------|--|
| G1 | (2) 316L SST Ground Rings |
| G2 | (2) Nickel Alloy 276 (UNS N10276) Ground Rings |
| G3 | (2) Titanium Ground Rings |
| G4 | (2) Tantalum Ground Rings |
| G5 | (1) 316L SST Ground Ring |
| G6 | (1) Nickel Alloy 276 (UNS N10276) Ground Ring |
| G7 | (1) Titanium Ground Ring |
| G8 | (1) Tantalum Ground Ring |

(1) Best practice to use (2) two ground rings with wafer design.

Table 69: Rosemount 8711-M/L Wafer Sensor mounting hardware

| Code | Product description |
|------|--|
| MK2 | Carbon Steel mounting Studs & Nuts Kit |
| MK3 | 316 SST mounting Studs & Nuts Kit |

Table 70: Rosemount 8711-M/L Wafer Sensor certifications

| Code | Product description |
|-------------------|--|
| PD | Pressure Equipment Directive Certification (PED, per 97/23/EC) |
| DW ⁽¹⁾ | NSF Drinking Water Certification |

(1) Available liner PTFE (T) and electrode materials 316L SST (S) or Ni-Alloy 276 (H).

Table 71: Rosemount 8711-M/L Wafer Sensor other options

| Code | Product description |
|--------------------|--|
| D1 ⁽¹⁾ | High Accuracy Calibration (0.15% of rate for matched sensor and transmitter) |
| J1 ⁽²⁾ | M20–1.5 Conduit Entries |
| SJ ⁽³⁾ | 316 SST Remote Junction Box |
| P05 ⁽⁴⁾ | 5 Point Calibration Verification |
| P10 ⁽⁵⁾ | 10 Point Calibration Verification |

(1) The high accuracy calibration requires a matched transmitter. It is only available when ordered with a transmitter. Spare or replacement orders are not available with the D1 option.

(2) M20 conduit adapters are supplied for Ordinary Locations and US/Canadian Approvals N5, N6, K5 and KU.

(3) Not available with US/Canadian Approvals N5, N6, K5, or KU.

(4) Available for: 1/2-in. to 8-in. (15 to 200 mm) Velocities 1, 3, 5, 7, 10 ft/s.

(5) Available for: 1/2-in. to 8-in. (15 to 200 mm) Velocities 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ft/s.

Table 72: Rosemount 8711-M/L Wafer Sensor quality certificates

| Code | Product description |
|--------------------|--|
| Q4 | Calibration Certificate per ISO 10474 3.1B/ EN 10204 3.1 |
| Q5 | Hydrostatic Test Certificate |
| Q8 | Material Traceability per ISO 10474 3.1B / EN 10204 3.1 |
| Q25 | Certificate of Compliance to NACE MR0103 |
| Q66 ⁽¹⁾ | Weld Procedure Package (Weld Map, Weld Procedure Specification, Weld Procedure Qualification Record, Welder Performance Qualification) |
| Q70 | NDE Weld Examination Inspection Certificate, ISO 10474 3.1B |
| Q76 | Positive Material Identification (PMI) on Pipe, per ASTM E1476-97 |

(1) Available on 6- and 8-in. only.

Table 73: Rosemount 8711-M/L Wafer Sensor witness inspection

| Code | Product description |
|------|---------------------|
| WG | Witness Inspection |

Rosemount 8721 Hygienic (Sanitary) Sensor



The 8721 Hygienic Sensor is specifically designed for the demanding applications in food, beverage, and life sciences. The robust, all-welded, full diameter sensor is constructed of FDA approved materials, authorized to display the 3-A Symbol (Authorization #1222). Sizes range from ½-in. (15mm) to 4-in. (100mm) and are available in a variety of industry standard process connections.

Note

The starred (★) offerings represent the most common options, and should be selected for best delivery.

Model code structure

Example model code with one selection out of each category: 8721 A S A 025 R A 1 _ D3 WG

Table 74: Requirements - select one from each available choice

| Example code | Category |
|--------------|---|
| 8721 | Base model - Rosemount 8721 Hygienic Sensor |
| A | Lining material (Table 76) |
| S | Electrode material (Table 77) |
| A | Electrode type (Table 78) |
| 025 | Line size (Table 79) |
| R | Transmitter mounting configuration (Table 80) |
| A | Process connection type (Table 81) |
| 1 | Process gasket material (Table 82) |

Table 75: Options - select only as needed

| Example code | Category |
|--------------|---|
| _ | Safety approvals (Table 83) |
| D3 | Other options (Table 84) |
| WG | Witness inspection (Table 85) |

Requirements

Table 76: Rosemount 8721 Hygienic Sensor lining material

| Model | Product description |
|-------|--|
| A | PFA ★ |

Table 77: Rosemount 8721 Hygienic Sensor electrode material

| Model | Product description | |
|-------|-------------------------------|---|
| S | 316L SST | ★ |
| H | Nickel Alloy 276 (UNS N10276) | ★ |
| P | 80% Platinum-20% Iridium | |

Table 78: Rosemount 8721 Hygienic Sensor electrode type

| Model | Product description | |
|-------|--------------------------|---|
| A | 2 Measurement Electrodes | ★ |

Table 79: Rosemount 8721 Hygienic Sensor line size

| Model | Product description | |
|-------|---------------------|---|
| 005 | ½-in. (15 mm) | ★ |
| 010 | 1-in. (25 mm) | ★ |
| 015 | 1½-in. (40 mm) | ★ |
| 020 | 2-in. (50 mm) | ★ |
| 025 | 2½-in. (65 mm) | ★ |
| 030 | 3-in. (80 mm) | ★ |
| 040 | 4-in. (100 mm) | ★ |

Table 80: Rosemount 8721 Hygienic Sensor transmitter mounting configuration

| Model | Product description | |
|-------|--|---|
| R | Remote Mount with Replaceable Terminal Block | ★ |
| U | Integral mount | ★ |

Table 81: Rosemount 8721 Hygienic Sensor process connection type

| Model | Product description | |
|------------------|-------------------------|---|
| A ⁽¹⁾ | Tri Clamp | ★ |
| B ⁽²⁾ | IDF Sanitary screw type | ★ |
| C ⁽²⁾ | ANSI Weld Nipple | |
| D | DIN 11851 (Imperial) | |
| E | DIN 11851 (Metric) | |
| F | DIN 11864-1 form A | |
| G | DIN 11864-2 form A | |
| H | SMS Connection | |
| J | Cherry-Burrell I-Line | |
| K | DIN 11850 Weld Nipple | |

(1) Tri Clamp specification per BPE.

(2) IDF Specification per BS4825 Part 4.

Table 82: Rosemount 8721 Hygienic Sensor gasket material

| Model | Product description | |
|-------|----------------------------|---|
| 1 | Silicone | ★ |
| 2 | EPDM | ★ |
| 4 | Viton® | |
| 8 | EPDM Compression limiting | |
| 9 | Viton Compression limiting | |

Options

Note

These are not required, but they must be included in the model number if desired.

Table 83: Rosemount 8721 safety approvals

| Model | Product description | |
|-------|---|---|
| -(1) | Ordinary Locations - (no code required) | ★ |

(1) Labeled with CSA(C/US), CE, C-tick and EAC.

Table 84: Rosemount 8721 other options

| Model | Product description |
|-------------------|---|
| AH | Electro-Polished process connection (Ra ≤ 15µinch) |
| D1 ⁽¹⁾ | High Accuracy Calibration (0.25% of rate for matched sensor and transmitter system) |
| D3 | High Velocity Meter Verification. Calibration verified at 1, 3, 10 and 20 ft/sec (0.3, 1, 3, and 6 m/s) |
| HP | Process Data PD340 (Alfa-Laval PD340) 250mm lay length and Tri Clamp process connections |
| J1 | M20-1.5 Conduit Adapter (Remote mount only) |
| Q4 | Calibration Certificate per ISO 10474 3.1B/ EN 10204 3.1 |
| Q8 | Material Traceability Certificate per ISO 10474 3.1B / EN 10204 3.1(product contact surfaces) |
| SJ | 316 SST Remote Junction Box |

(1) The high accuracy calibration requires a matched transmitter. It is only available when ordered with a transmitter. Spare or replacement orders are not available with the D1 option.

Table 85: Rosemount 8721 witness inspection

| Model | Product description |
|-------|---------------------|
| WG | Witness Inspection |

Rosemount 8714D Magnetic Flowmeter Simulator Reference Calibration Standard



The Rosemount 8714D Magnetic Flowmeter Simulator attaches to an 8732EM Transmitter's sensor connections to ensure traceability to NIST standards and long-term accuracy of the flowmeter system.

Note

The starred (★) offerings represent the most common options, and should be selected for best delivery.

Table 86: Rosemount 8714 Ordering Information

| Model | Product | |
|-----------------------------|---|---|
| 8714 | Magnetic Flowmeter Simulator - Reference Calibration Standard | ★ |
| Calibrator style | | |
| D | Multi-point Reference Calibration Standard | ★ |
| Quality certificates | | |
| Q4 | Flow Calibration Certificate | ★ |

Ordering flowmeter equipment

Ordering procedure

To order, select the desired sensor and/or transmitter by specifying model codes from the ordering table.

For remote transmitter applications, note the cable specification requirements.

Sensors and transmitters must be selected from Product Data Sheet 00813-0100-4444, unless otherwise noted.

Standard configuration

Unless the Configuration Data Sheet is completed, the transmitter will be shipped as follows:

| | |
|----------------------------|------------------|
| Engineering units: | ft/sec |
| 4mA: | 0 |
| 20mA: | 30 |
| Sensor size: | 3-in. |
| Empty pipe: | On |
| Sensor calibration number: | 1000005010000000 |

Integrally mounted transmitters are factory configured with the paired sensor size and appropriate calibration number.

Custom configuration (option code C1)

If Option Code C1 is ordered, the Configuration Data Sheet (CDS) must be submitted at the time of order.

Standard tagging

Instrument tags for the transmitter and sensors are as follows:

- 316SST laser etched label, permanently attached
- Main label - Tag name: 1 line 21 characters
- Additional 316SST 'wire-on' tag available: 5 lines, 17 characters per line (6mm height)

Interconnecting cable

Interconnecting cables are required to connect a remote mount transmitter to the sensor. When ordering cable, review the hazardous area approval requirements and the installation location requirements for proper cable selection.

- Cables can be ordered as individual component cables or a combination coil drive/electrode cable.
- Cables can be ordered as part of the transmitter model number or as a spare parts kit. Integrally mounted transmitters are factory wired and do not require additional interconnecting cables.
- Individual component cables require equal lengths of coil drive cable and electrode cable and should be limited to less than 500 feet (152 m). Consult Technical Support for lengths between 500-1000 feet (152-304 m).
- Combination coil drive/electrode cable is only available for Ordinary Locations and should be limited to less than 330 feet (100 m).

Component cable kits

| Standard temp (-20 °C to 75 °C) | | | | |
|---------------------------------|--|-----------|-----------------|-----------|
| Cable kit # | Description | Component | Rosemount p/n | Alpha p/n |
| 08732-0065-0001 (feet) | Kit, Component Cables, Std Temp, (includes Coil and Electrode) | Coil | 08732-0060-0001 | 2442C |
| | | Electrode | 08732-0061-0001 | 2413C |
| 08732-0065-0002 | Kit, Component Cables, Std Temp (includes Coil | Coil | 08732-0060-0002 | 2442C |

| Standard temp (-20 °C to 75 °C) | | | | |
|---------------------------------|---|-----------------|-----------------|---------------|
| (meters) | and Electrode) | Electrode | 08732-0061-0002 | 2413C |
| 08732-0065-0003 (feet) | Kit, Component Cables, Std Temp (includes Coil and I. S. Electrode) | Coil | 08732-0060-0001 | 2442C |
| | | I. S. Electrode | 08732-0061-0003 | Not available |
| 08732-0065-0004 (meters) | Kit, Component Cables, Std Temp (includes Coil and I. S. Electrode) | Coil | 08732-0060-0002 | 2442C |
| | | I.S. Electrode | 08732-0061-0004 | Not available |

| Extended temp (-50 °C to 125 °C) | | | | |
|----------------------------------|---|-----------------|-----------------|---------------|
| Cable kit # | Description | Component | Rosemount p/n | Alpha p/n |
| 08732-0065-1001 (feet) | Kit, Component Cables, Ext Temp (includes Coil and Electrode) | Coil | 08732-0060-1001 | Not available |
| | | Electrode | 08732-0061-1001 | Not available |
| 08732-0065-1002 (meters) | Kit, Component Cables, Ext Temp (includes Coil and Electrode) | Coil | 08732-0060-1002 | Not available |
| | | Electrode | 08732-0061-1002 | Not available |
| 08732-0065-1003 (feet) | Kit, Component Cables, Ext Temp (includes Coil and I. S. Electrode) | Coil | 08732-0060-1001 | Not available |
| | | I. S. Electrode | 08732-0061-1003 | Not available |
| 08732-0065-1004 (meters) | Kit, Component Cables, Ext Temp (includes Coil and I. S. Electrode) | Coil | 08732-0060-1002 | Not available |
| | | I.S. Electrode | 08732-0061-1004 | Not available |

Combo cable kits

| Coil/electrode cable (-20 °C to 80 °C) | |
|--|--|
| Cable Kit # ⁽¹⁾ | |
| 08732-0065-2001 (feet) | Kit, Combo Cable, Standard |
| 08732-0065-2002 (meters) | |
| 08732-0065-3001 (feet) | Kit, Combo Cable, Submersible ⁽²⁾ |
| 08732-0065-3002 (meters) | |

(1) Only available for Ordinary Locations.

(2) 80 °C dry/60 °C wet/33ft continuous submergence.


Product Specifications

Rosemount 8700M Flowmeter Platform specifications

The tables below outline some of the basic performance, physical, and functional specifications of the Rosemount 8700M Magnetic Flowmeter Platform.

- [Table 87](#) provides an overview of the Rosemount 8712EM Transmitter.
- [Table 88](#) provides an overview of the Rosemount 8732EM Transmitter.
- [Table 89](#) provides an overview of the Rosemount 8700M Sensor products.

Table 87: Rosemount 8712EM Transmitter Specifications

| | | |
|---|------------------------------|--|
|  | Model | 8712EM |
| | Base accuracy ⁽¹⁾ | 0.25% Standard 0.15% High Accuracy Option |
| | Mounting | Remote |
| | Power supply | Global AC or DC |
| | User interface | LCD display with 15 button tactile keypad (with HART or Modbus protocols only) LCD display only No display |
| | Communication protocol | HART FOUNDATION™ fieldbus Modbus RS-485 |
| | Diagnostics | Basic, DA1, DA2 |
| | Sensor compatibility | All Rosemount plus other manufacturers |
| | Detailed specifications | 8712 and 8732 Transmitter specifications |
| | Ordering information | Rosemount 8712EM Transmitter |

(1) For complete accuracy specifications, please refer to [Transmitter functional specifications](#).

Table 88: Rosemount 8732EM Transmitter Specifications



| | | |
|---|------------------------------|--|
|  | Model | 8732EM |
| | Base accuracy ⁽¹⁾ | 0.25% Standard 0.15% High Accuracy Option |
| | Mounting | Integral or Remote |
| | Power supply | Global AC or DC |
| | User interface | LCD display with 4 Optical Switch LOI (with HART or Modbus protocols only) LCD display only No display |
| | Communication protocol | HART FOUNDATION™ fieldbus Modbus RS-485 |
| | Diagnostics | Basic, DA1, DA2 |
| | Sensor compatibility | All Rosemount plus other manufacturers |

Table 88: Rosemount 8732EM Transmitter Specifications (continued)

| | | |
|--|-------------------------|--|
| | Detailed specifications | 8712 and 8732 Transmitter specifications |
| | Ordering information | Rosemount 8732EM Transmitter |

(1) For complete accuracy specifications, please refer to [Transmitter functional specifications](#).

Table 89: Rosemount Sensor Specifications

| | | |
|---|------------------------------|--|
|  | Model | 8705 |
| | Style | Flanged |
| | Base accuracy ⁽¹⁾ | 0.25% Standard 0.15% High Accuracy Option |
| | Line sizes | ½-in. to 36-in. (15 mm to 900 mm) |
| | Design features | Standard Process Design |
| | Detailed specifications | 8705-M Flanged Sensor Specifications |
| | Ordering information | Rosemount 8705-M Flanged Sensor |
|  | Model | 8711 |
| | Style | Wafer |
| | Base accuracy ⁽¹⁾ | 0.25% Standard 0.15% High Accuracy Option |
| | Line sizes | 1 ½ -in. to 8-in. (40 mm to 200 mm) |
| | Design features | Compact, Light Weight |
| | Detailed specifications | 8711-M/L Wafer Sensor Specifications |
| | Ordering information | Rosemount 8711-M/L Wafer Sensors |
|  | Model | 8721 |
| | Style | Hygienic (sanitary) |
| | Base accuracy ⁽¹⁾ | 0.5% Standard 0.25% High Accuracy Option |
| | Line sizes | ½-in. to 4-in. (15 mm to 100 mm) |
| | Design features | 3-A CIP/SIP |
| | Detailed specifications | 8721 Hygienic (Sanitary) Sensor Specifications |
| | Ordering information | Rosemount 8721 Hygienic (Sanitary) Sensor |

(1) For complete accuracy specifications, refer to the sensor detailed specifications.

Table 90: Lining Material Selection


| Liner material | General characteristics |
|--|--|
| PFA, PFA+  | Best chemical resistance |
| | Better abrasion resistance than PTFE |
| | Best high temperature capabilities |
| | Process temperature: -58 to 350 °F (-50 to 177 °C) |
| PTFE | Highly chemical resistant |
| | Excellent high temperature capabilities |

Table 90: Lining Material Selection (continued)


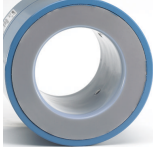
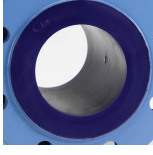
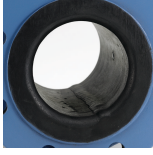
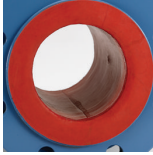
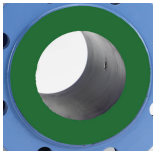
| Liner material | General characteristics |
|---|---|
|  | Process temperature: -58 to 350 °F (-50 to 177 °C) |
| ETFE  | Excellent chemical resistance Better abrasion resistance than PTFE Process temperature: -58 to 300 °F (-50 to 149 °C) |
| Polyurethane  | Limited chemical resistance Excellent abrasion resistance for slurries with small and medium particles Process temperature: 0 to 140 °F (-18 to 60 °C) Typically applied in clean water |
| Neoprene  | Very good abrasion resistance for small and medium particles Better chemical resistance than polyurethane Typically applied in water with chemicals, and sea water Preferred liner for high pressure > ASME B16.5 Class 900 Process temperature: 0 to 176 °F (-18 to 80 °C) |
| Linatex Rubber  | Limited chemical resistance especially in acids Very good abrasion resistance for large particles Softer material than polyurethane and neoprene Typically applied in mining slurries Process temperature: 0 to 158 °F (-18 to 70 °C) |
| Adiprene  | Ideal for applications with high salinity and/or hydrocarbon carryover Excellent abrasion resistance Typically used for Water Injection, Recovered Water, and Coal Gasification Slurries Preferred liner for high pressure > ASME B16.5 Class 900 Process temperature: 0 to 200 °F (-18 to 93 °C) |

Table 91: Electrode Material

| Electrode material | General characteristics |
|----------------------------------|---|
| 316L Stainless Steel | Good corrosion resistance Good abrasion resistance Not recommended for sulfuric or hydrochloric acids |
| Nickel Alloy 276 (UNS N10276) | Better corrosion resistance High strength |

Table 91: Electrode Material (continued)

| Electrode material | General characteristics |
|-----------------------------|--|
| | Good in slurry applications |
| | Effective in oxidizing fluids |
| Tantalum | Excellent corrosion resistance |
| | Not recommended for hydrofluoric acid, fluorosilic acid, or sodium hydroxide |
| 80% Platinum 20% Iridium | Best chemical resistance |
| | Expensive material |
| | Not recommended for aquaregia |
| Titanium | Better chemical resistance |
| | Better abrasion resistance |
| | Good for sea water applications |
| | Not recommended for hydrofluoric or sulfuric acid |
| Tungsten Carbide coated | Limited chemical resistance |
| | Best abrasion resistance |
| | High concentration slurries |
| | Preferred electrode for oil and gas fracturing applications |

Table 92: Electrode Type

| Electrode type | General characteristics |
|--|---|
| Standard Measurement | Lowest cost |
| | Good for most applications |
| Measurement + Reference Electrode (Also see Table 93 and Table 94 for grounding options and installation) | Low cost grounding option especially for large line sizes |
| | Minimum conductivity of 100 microSiemens/cm |
| | Not recommended for electrolytic or galvanic corrosion applications |
| Bulldog | Extended head protrudes into the flow stream for self-cleaning |
| | Best option for coating processes |
| Flat Head | Low profile head |
| | Best option for abrasive slurries |

Table 93: Process Reference Options

| Grounding options | General characteristics |
|---|---|
| No Grounding Options (grounding straps) | Acceptable for conductive unlined pipe |
| | Grounding straps provided at no cost |
| Reference Electrode | Same material as measurement electrodes |
| | Sufficient grounding option when process fluid conductivity is greater than 100 microSiemens/cm |

Table 93: Process Reference Options (continued)

| Grounding options | General characteristics |
|-------------------|--|
| | Not recommended in electrolysis applications, galvanic corrosion applications, applications where the electrodes may coat, or non-conductive pipe. |
| Grounding Rings | Low conductivity process fluids |
| | Cathodic or electrolysis applications that may have stray currents in or around the process |
| | Variety of materials for process fluid compatibility |
| Lining Protectors | Protect upstream edge of sensor from abrasive fluids |
| | Permanently installed on sensor |
| | Protect liner material from over torquing of flange bolts |
| | Provide ground path and eliminate need for grounding rings or reference electrode |
| | Required for applications where Flexitallic gaskets are used |

Table 94: Process Reference Installation

| Type of pipe | Grounding straps | Grounding rings | Reference electrode | Lining protectors |
|-------------------------|------------------|-----------------|---------------------|-------------------|
| Conductive unlined pipe | Acceptable | Not required | Not required | Not required |
| Conductive lined pipe | Not acceptable | Acceptable | Acceptable | Acceptable |
| Non-conductive pipe | Not acceptable | Acceptable | Not recommended | Acceptable |

8712 and 8732 Transmitter specifications

Transmitter functional specifications

Sensor compatibility

Compatible with Rosemount 8705, 8711, and 8721 sensors. Compatible with AC and DC powered sensors of other manufacturers.

Transmitter coil drive current

500mA

Flow rate range

Capable of processing signals from fluids with velocities between 0.04 and 39 ft/s (0.01 to 12 m/s) for both forward and reverse flow in all sensor sizes. Full scale continuously adjustable between -39 and 39 ft/s (-12 to 12 m/s).

Conductivity limits

Process liquid must have a conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater.

Power supply

- 90 - 250VAC @ 50/60Hz
- 12 - 42VDC

Line power fuses

- 90 - 250VAC systems:
 - 2 amp quick acting

- Bussman AGC2 or equivalent
- 12 - 42VDC systems
 - 3 amp quick acting
 - Bussman AGC3 or equivalent
- 12 - 30VDC systems
 - 3 amp quick acting
 - Bussman AGC3 or equivalent

Power consumption

- 90 - 250VAC: 40VA maximum
- 12 - 42VDC: 15W maximum
- 12 - 30VDC: 3W maximum HART
- 12 - 30VDC: 4W maximum Modbus

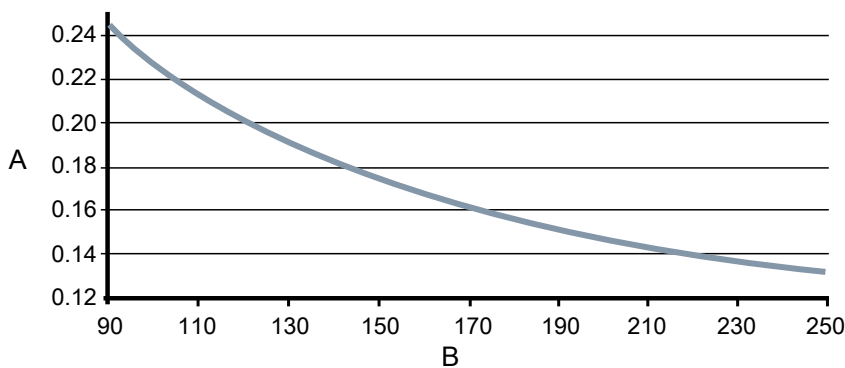
Switch-on current

- At 250VAC: Maximum 35.7A (< 5ms)
- At 42VDC: Maximum 42A (< 5ms)
- At 30VDC: Maximum 42A (< 5ms)

AC power supply requirements

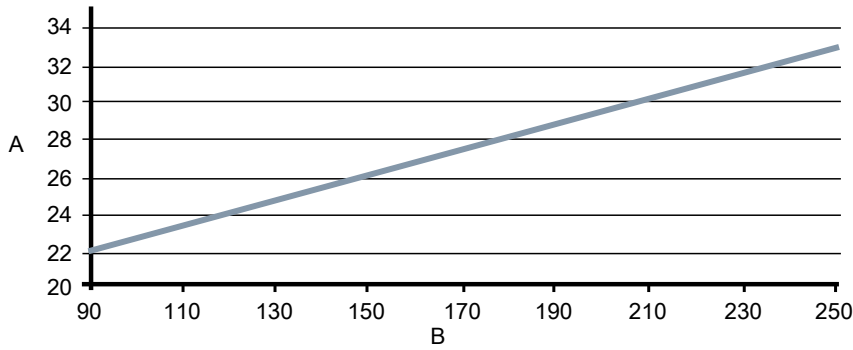
Units powered by 90 - 250VAC have the following power requirements. Peak inrush is 35.7A at 250VAC supply, lasting approximately 1ms. Inrush for other supply voltages can be estimated with: $\text{Inrush (Amps)} = \text{Supply (Volts)} / 7.0$

Figure 2: AC current requirements



- A. Supply current (amps)
- B. Power supply (VAC)

Figure 3: Apparent power

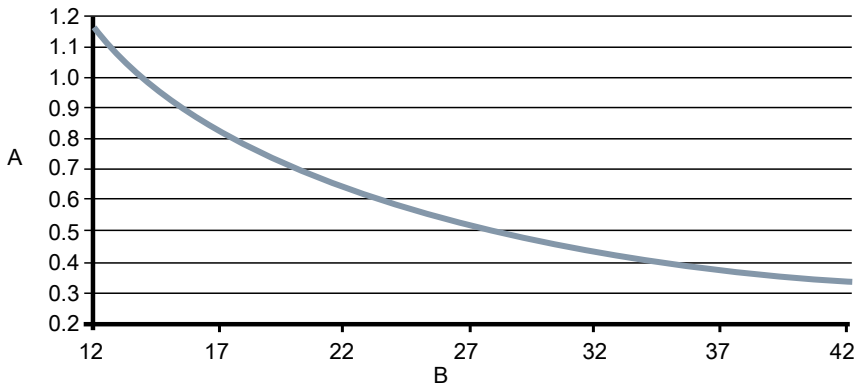


- A. Apparent power (VA)
- B. Power supply (VAC)

DC power supply requirements

Standard DC Units powered by 12VDC power supply may draw up to 1.2A of current steady state. Low power DC units may draw up to 0.25A of current steady state. Peak inrush is 42A at 42VDC supply, lasting approximately 1ms. Inrush for other supply voltages can be estimated with: $Inrush (Amps) = Supply (Volts) / 1.0$

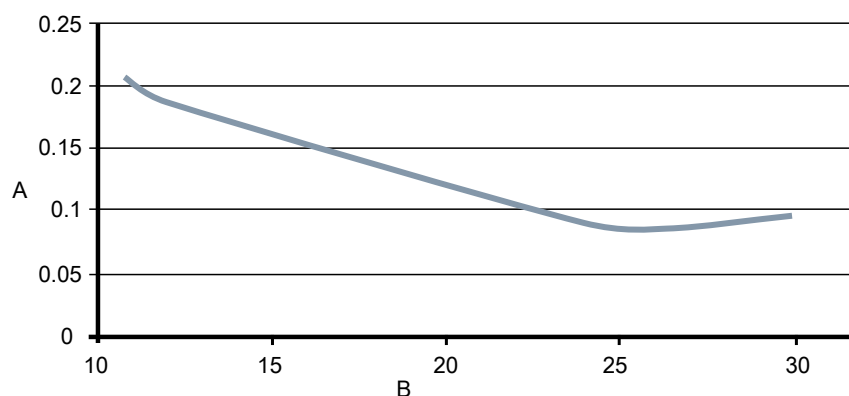
Figure 4: DC current requirements



- A. Supply current (amps)
- B. Power supply (VDC)

DC low power supply requirements

Figure 5: Low power DC current requirements



- A. Supply current (amps)
B. Power supply (VDC)

Low power software option

This software option lowers the coil current from 500 mA to 75 mA in order to conserve power for applications in remote locations where power is scarce. The coils are still driven in a continuous manner optimizing measurement performance and providing access to all diagnostic capabilities. Because of the reduced coil current, flow measurement accuracy is reduced to 1% of rate for low power systems. [Table 95](#) shows the power consumption that can be expected for various configurations. Due to the reduced coil current, sensor size is limited to a maximum line size of 10-in. (250 mm).

The low power option is available with DC power only (option code 3) and output code B (4-20 mA/HART/Pulse) or M (Modbus RS-485 / Pulse). To ensure the sensor will support the low power functionality, option code D3 for a low power calibration must appear in the sensor model number. Sample model numbers for a low power system are:

8732EMT3M1N6M4DA1DA2

8705DHA020D7M0N6B3D3

Table 95: Low power consumption

| Output code | Power consumption | Flow accuracy | Measurement range |
|--|-------------------|---------------|--|
| Output Code B Utilize Pulse Output Only | 2 Watts Maximum | 1% of Rate | 0.04 fps to 39 fps 0.01 m/s to 12 m/s |
| Output Code B Utilize Pulse and Analog Output | 3 Watts Maximum | 1% of Rate | 0.04 fps to 39 fps 0.01 m/s to 12 m/s |
| Output code M Utilizing Modbus RS-485 and Pulse Output | 4 Watts Maximum | 1% of Rate | 0.04 fps to 39 fps 0.01 m/s to 12 m/s |

Ambient temperature limits

- Operating:
 - -58 to 140 °F (-50 to 60 °C) without LOI/Display
 - -4 to 140 °F (-20 to 60 °C) with LOI/Display
 - The LOI/Display will not be visible at temperatures below -20°C
- Storage:
 - -58 to 185 °F (-50 to 85 °C) without LOI/Display

- -22 to 176 °F (-30 to 80 °C) with LOI/Display

Humidity limits

0–95% RH to 140 °F (60 °C)

Altitude

2000 meters maximum

Enclosure rating

Type 4X, IEC 60529, IP66 (transmitter)

Transient protection rating

Built in transient protection that conforms to:

- IEC 61000-4-4 for burst currents
- IEC 61000-4-5 for surge currents
- IEC 611185-2.2000, Class 3 up to 2kV and up to 2kA protection

Turn-on time

- 5 minutes to rated accuracy from power up
- 5 seconds from power interruption

Start-up time

50ms from zero flow

Low flow cut-off

Adjustable between 0.01 and 38.37 ft/s (0.003 and 11.7 m/s). Below selected value, output is driven to the zero flow rate signal level.

Overrange capability

Signal output will remain linear until 110% of upper range value or 44 ft/s (13 m/s). The signal output will remain constant above these values. Out of range message displayed on LOI/Display and the Field Communicator.

Damping

Adjustable between 0 and 256 seconds

Advanced diagnostics capabilities

Basic

- Self test
- Transmitter faults
- Analog output test
- Pulse output test
- Tunable empty pipe
- Reverse flow
- Coil circuit fault
- Electronics temperature

Process diagnostics (DA1)

- Ground/wiring fault
- High process noise
- Electrode coating diagnostic

Smart Meter Verification (DA2)

- Smart Meter Verification (continuous or on-demand)
- 4-20mA loop verification⁽²⁾

Output signals

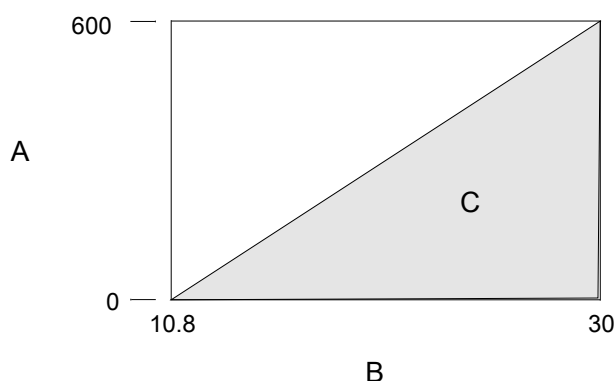
Analog output adjustment ⁽³⁾

4–20mA, switch-selectable as internally or externally powered.

Analog loop load limitations

- Internally powered 24VDC max, 500 ohms max loop resistance
- Externally powered 10.8 - 30VDC max.
- Loop resistance is determined by the voltage level of the external power supply at the transmitter terminals:

Figure 6: Analog loop load limitations



- A. Load (ohms)
- B. Power supply (volts)
- C. Operating region

- $R_{\max} = 31.25 (V_{ps} - 10.8)$
- V_{ps} = power supply voltage (volts)
- R_{\max} = maximum loop resistance (ohms)

The analog output is automatically scaled to provide 4mA at lower range value and 20mA at upper range value. Full scale continuously adjustable between -39 and 39 ft/s (-12 to 12 m/sec), 1 ft/s (0.3 m/s) minimum span.

HART Communications is a digital flow signal. The digital signal is superimposed on the 4–20mA signal and is available for the control system interface. A minimum of 250 ohms loop resistance is required for HART communications.

Analog alarm mode

High or low alarm signal is user-selectable via the Alarm switch on the front of the electronics. NAMUR-compliant alarm limits are software configurable and can be preset via CDS (C1). Individual diagnostic alarms are also software configurable. Alarms will drive

(2) Available with HART output only.

(3) For transmitters with intrinsically safe outputs (option code B), power must be supplied externally.

the analog signal to the following mA values. High or low alarm signal is user-selectable via the Alarm switch on the front of the electronics. NAMUR-compliant alarm limits are software configurable and can be preset via CDS (C1). Individual diagnostic alarms are also software configurable. Alarms will drive the analog signal to the following mA values.

| | | |
|------------|----------|-------------------|
| Low | 3.75 mA | Requires CDS (C1) |
| High | 22.50 mA | Factory default |
| NAMUR Low | 3.5 mA | Requires CDS (C1) |
| NAMUR High | 22.6 mA | Requires CDS (C1) |

FOUNDATION™ Fieldbus output

| | |
|--|---|
| Output signal | Manchester-encoded digital signal that conforms to IEC 1158-2 and ISA 50.02 |
| Scheduled Entries | Seven (7) |
| Links | Twenty (20) |
| Virtual Communications Relationships (VCRs) | One (1) predefined (F6, F7) Nineteen (19) configurable |

FOUNDATION™ fieldbus function blocks

Table 96: Function block execution times

| Block | Execution time (milliseconds) |
|--|-------------------------------|
| Resource (RB) | — |
| Transducer (TB) | — |
| Analog Input (AI) | 15 |
| Proportional/Integral/Derivative (PID) | 20 |
| Integrator (INT) | 25 |
| Arithmetic (AR) | 25 |
| Discrete Output (DO) | 15 |

| | |
|---|--|
| Transducer Block | The transducer block calculates flow from the measured induced voltage. The calculation includes information related to the calibration number, line size, and diagnostics. |
| Resource Block | The resource block contains physical transmitter information, including available memory, manufacturer identification, device type, software tag, and unique identification. |
| Backup Link Active Scheduler (LAS) | The transmitter is classified as a device link master. A device link master can function as a Link Active Scheduler (LAS) if the current link master device fails or is removed from the segment. The host or other configuration tool is used to download the schedule for the application to the link master device. In the absence of a primary link master, the transmitter will claim the LAS and provide permanent control for the H1 segment. |
| Diagnostics | The transmitter automatically performs continuous self-diagnostics. The user can perform on-line testing of the transmitter digital signal. Advanced simulation diagnostics are available. This enables remote verification of the electronics via a flow signal generator built into the electronics. The sensor strength value can be used to view the process flow signal and provide information regarding filter settings. |
| Analog Input | The AI function block processes the measurement and makes it available to other function blocks. The AI function block also allows filtering, alarming, and engineering unit changes. |
| Arithmetic Block | Provides pre-defined application-based equations including flow with partial density compensation, electronic remote seals, hydrostatic tank gauging, ratio control and others. |
| Proportional/Integral/Derivative | The PID function block provides a sophisticated implementation of the universal PID algorithm. The PID function block features input for feed forward control, alarms on the process variable, and control |

deviation. The PID type (series or Instrument Society of America [ISA]) is user-selectable on the derivative filter.

| | |
|-------------------------|--|
| Integrator | The standard integrator block is available for totalization of flow. |
| Reverse Flow | Detects and reports reverse flow |
| Software Lockout | A write-lock switch and software lockout are provided in the resource function block. |
| Totalizer | Non-volatile totalizer for net, gross, forward and reverse totals. |
| Discrete Output | The DO function block processes a discrete setpoint and saves it to a specified channel to produce an output signal. The block supports mode control, output tracking, and simulation. |

Modbus RS-485 output

Transmitters with a Modbus output provide an RS-485 signal to a Modbus host system; data rates can be configured from 1200 baud to 115.2 kilobaud.

Scalable pulse frequency adjustment

- 0-10,000Hz, switch-selectable as internally or externally powered ⁽⁴⁾
- Pulse value can be set to equal desired volume in selected engineering units
- Pulse width adjustable from 0.1 to 650 ms
- Internally powered: Outputs up to 12VDC⁽⁵⁾
- Externally powered: Input 5 - 28VDC

Output testing

| | |
|--|---|
| Analog output test ⁽⁵⁾ | Transmitter may be commanded to supply a specified current between 3.5 and 23mA. |
| Pulse output test | Transmitter may be commanded to supply a specified frequency between 1 and 10,000Hz. ⁽⁴⁾ |

Optional discrete output function (AX option)

Externally powered at 5 - 28VDC, 240mA max, solid state switch closure to indicate either:

| | |
|-----------------------------------|---|
| Reverse flow | Activates switch closure output when reverse flow is detected. |
| Zero flow | Activates switch closure output when flow goes to 0 ft/s or below low flow cutoff. |
| Empty pipe | Activates switch closure output when an empty pipe condition is detected. |
| Transmitter faults | Activates switch closure output when a transmitter fault is detected. |
| Flow limit 1, flow limit 2 | Activates switch closure output when the transmitter measures a flow rate that meets the conditions established for this alert. There are two independent flow limit alerts that can be configured as discrete outputs. |
| Totalizer limit | Activates switch closure output when the transmitter measures a total flow that meets the conditions established for this alert. |
| Diagnostic status | Activates switch closure output when the transmitter detects a condition that meets the configured criteria of this output. |

Optional discrete input function (AX option)

Externally powered at 5 - 28VDC, 1.4 - 20mA to activate switch closure to indicate either:

| | |
|--------------------------------------|---|
| Reset Totalizer A (or B or C) | Resets Totalizer A (or B or C) value to zero. |
| Reset All Totals | Resets all totalizer values to zero. |

⁽⁴⁾ For transmitters with intrinsically safe outputs (option code B), frequency range is limited to 0-5000Hz.

⁽⁵⁾ For transmitters with intrinsically safe outputs (option code B), power must be supplied externally.

Positive Zero Return (PZR)

Forces outputs of the transmitter to zero flow.

Security lockout

Security lockout switch on the electronics board can be set to deactivate all LOI and HART-based communicator functions to protect configuration variables from unwanted or accidental change.

LOI lockout

The display can be manually locked to prevent unintentional configuration changes. The display lock can be activated through a HART communication device, or by holding the UP arrow for 3 seconds and then following the on-screen instructions. When the display lock is activated, a lock symbol will appear in the lower right hand corner of the display. To deactivate the display lock, hold the UP arrow for 3 seconds and follow the on-screen instructions.

Display auto lock can be configured from the LOI with the following settings: OFF, 1 Minute, or 10 Minutes

Sensor compensation

Rosemount sensors are calibrated in a flow lab at the factory and are assigned a calibration number. The calibration number must be entered into the transmitter, enabling interchangeability of sensors without calculations or a compromise in standard accuracy.

Transmitters and other manufacturers’ sensors can be calibrated at known process conditions or at the Rosemount NIST-Traceable Flow Facility. Transmitters calibrated on site require a two-step procedure to match a known flow rate. This procedure can be found in the operations manual.

Performance specifications

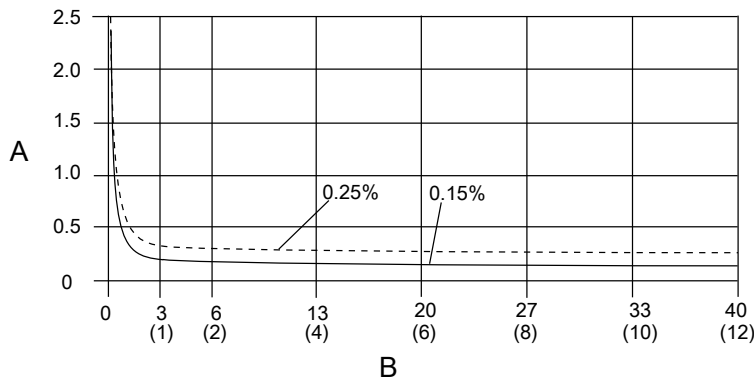
System specifications are given using the frequency output and with the unit at reference conditions.

Accuracy

Includes the combined effects of linearity, hysteresis, and repeatability.

Rosemount 8705-M Sensor

- Standard system accuracy:
 - $\pm 0.25\%$ of rate ± 1.0 mm/sec from 0.04 to 6 ft/s (0.01 to 2 m/s)
 - $\pm 0.25\%$ of rate ± 1.5 mm/sec above 6 ft/s (2 m/s)
- Optional high accuracy:⁽⁶⁾
 - $\pm 0.15\%$ of rate ± 1.0 mm/sec from 0.04 to 13 ft/s (0.01 to 4 m/s)
 - $\pm 0.18\%$ of rate above 13 ft/s (4 m/s)

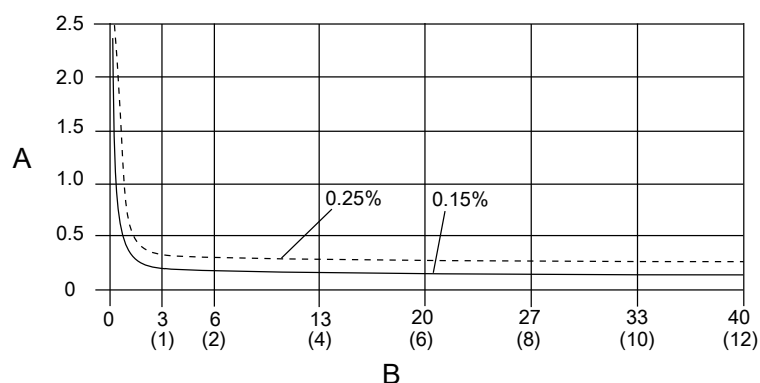


A. Percentage of rate
 B. Velocity in ft/s (m/s)

(6) For sensor sizes greater than 12 in. (300 mm) the high accuracy is $\pm 0.25\%$ of rate from 3 to 39 ft/sec (1 to 12 m/sec).

Rosemount 8711-M/L Sensor

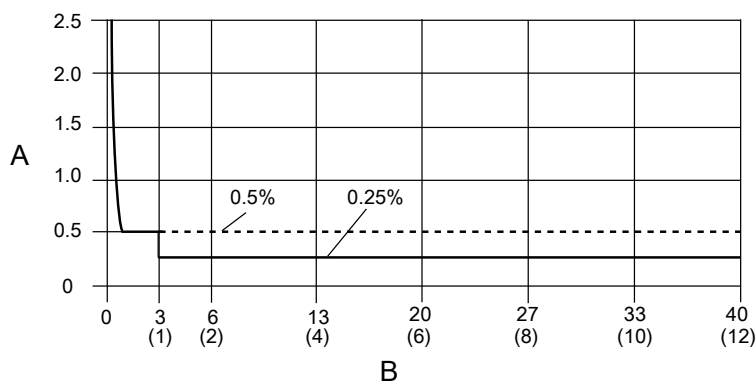
- Standard system accuracy:
 - $\pm 0.25\%$ of rate ± 2.0 mm/sec from 0.04 to 39 ft/s (0.01 to 12 m/s)
- Optional high accuracy:
 - $\pm 0.15\%$ of rate ± 1.0 mm/sec from 0.04 to 13 ft/s (0.01 to 4 m/s)
 - $\pm 0.18\%$ of rate above 13 ft/s (4 m/s)



A. Percentage of rate
 B. Velocity in ft/s (m/s)

Rosemount 8721 Sensor

- Standard system accuracy:
 - $\pm 0.5\%$ of rate from 0.04 to 1.0 ft/s (0.01 and 0.3 m/s)
 - $\pm 0.5\%$ of rate ± 1.5 mm/s from 1 to 39 ft/s (0.3 to 12 m/s)
- Optional high accuracy:
 - $\pm 0.25\%$ of rate from 3 to 39 ft/s (1 to 12 m/s):



A. Percentage of rate
 B. Velocity in ft/s (m/s)

Other manufacturers' sensors

- When calibrated in the Rosemount Flow Facility, system accuracies as good as 0.5% of rate can be attained.
- There is no accuracy specification for other manufacturers' sensors calibrated in the process line.

Analog output effects

Analog output has the same accuracy as frequency output plus an additional $\pm 4 \mu$ A at room temperature.

| | |
|-------------------------------|---|
| Repeatability | ±0.1% of reading |
| Response time (analog output) | 20 ms max response time to step change in input |
| Stability | ±0.1% of rate over six months |
| Ambient temperature effect | ±0.25% change over operating temperature range |

8712 Wall mount transmitter physical specifications

Materials of construction

| | |
|------------------|---|
| Standard housing | Low copper aluminum Type 4X and IEC 60529 IP66 |
| Paint | Polyurethane coat (1.8 to 2.2 mils thick) |
| Optional housing | Not available |
| Cover gaskets | Silicone |

Electrical connections

| | |
|-------------------------|--|
| Conduit entries | ½ inch NPT or M20 |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

Vibration rating

2G per IEC 61298

Dimensions

See [Figure 7](#).

Weight

| | | |
|------------------------|----------|-----------------------------|
| Wall mount transmitter | Aluminum | Approximately 9 lbs. (4 kg) |
|------------------------|----------|-----------------------------|

Add 1 pound (0.5 kg) for LOI/Display.

8732 Field mount transmitter physical specifications

Materials of construction

| | |
|------------------|--|
| Standard housing | Low copper aluminum Type 4X and IEC 60529 IP66 |
| Paint | Polyurethane coat (1.8 to 2.2 mils thick) |
| Optional housing | 316/316L unpainted, option code SH Type 4X and IEC 60529 IP66 |
| Cover gasket | Aluminum housing: Buna-N 316 SST housing: Silicone |

Ingress protection

Consult Emerson for installations requiring IP67/IP68/IP69K.

Electrical connections

| | |
|-------------------------|--|
| Conduit entries | Available in 1/2 inch NPT or M20. See ordering table footnotes for details |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

Vibration rating

| | |
|----------------|------------------|
| Integral mount | 2G per IEC 61298 |
| Remote mount | 5G per IEC 61298 |

Dimensions

See [Figure 8](#).

Weight

| | | |
|------------------------------|---------------------|---------------------------------|
| Field mount transmitter only | Aluminum | Approximately 7 lbs. (3.2 kg) |
| | 316 stainless steel | Approximately 23 lbs. (10.5 kg) |

Add 1 pound (0.5 kg) for LOI/Display.

8705-M Flanged Sensor Specifications**Functional specifications****Service**

Conductive liquids and slurries

Line sizes

½ -in. to 36-in. (15 mm to 900 mm)

Sensor coil resistance

7 - 16 Ω

Interchangeability

Rosemount 8705-M sensors are interchangeable with 8712EM and 8732EM transmitters. Rosemount 8750W sensors are interchangeable with 8750W transmitters. System accuracy is maintained regardless of line size or optional features. Each sensor nameplate has a sixteen-digit calibration number that can be entered into a transmitter during configuration.

Upper range limit

39.37 ft/s (12 m/s)

Ambient temperature limits

- -20 to 140 °F (-29 to 60 °C) standard design
- -58 to 140 °F (-50 to 60 °C) with "SH" all stainless design⁽⁷⁾

Pressure limits

See [Process temperature limits](#).

Vacuum limits

| | |
|--|---|
| PTFE lining | Full vacuum to +350 °F (+177 °C) through 4-in. (100 mm) line sizes. Consult Technical Support for vacuum applications with line sizes of 6 inches (150 mm) or larger |
| All other standard sensor lining materials | Full vacuum to maximum material temperature limits for all available line sizes. |

Submergence protection IP68

The remote mount sensor is rated IP68 for submergence to a depth of 33 ft (10 m) for a period of 48 hours. IP68 rating requires that the transmitter must be remote mount. Installer must use IP68 approved cable glands, conduit connections, and/or conduit plugs.

For more details on proper installation techniques for IP68, reference Rosemount Technical Note 00840-0100-4750 available on www.emerson.com.

Conductivity limits

Process liquid must have a minimum conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater.

Process temperature limits

| | |
|---------------------|---------------------------------|
| PTFE lining | -58 to +350 °F (-50 to +177 °C) |
| ETFE lining | -58 to +300 °F (-50 to +149 °C) |
| PFA and PFA+ lining | -58 to +350 °F (-50 to +177 °C) |
| Polyurethane lining | 0 to +140 °F (-18 to +60 °C) |
| Neoprene lining | 0 to +176 °F (-18 to +80 °C) |
| Linatex lining | 0 to +158 °F (-18 to +70 °C) |
| Adiprene lining | 0 to +200 °F (-18 to +93 °C) |

(7) Not available for Class/Div approval codes N5, N6, K5, KU.

Table 97: Temperature vs. Pressure Limits for ASME B16.5 class flanges ⁽¹⁾

| Sensor temperature vs. pressure limits for ASME B16.5 class flanges (½ -in. to 36-in. Line Sizes) ⁽²⁾ | | | | | |
|---|--------------------------|--------------------------------|------------------|-------------------|-------------------|
| Flange material | Flange rating | Pressure | | | |
| | | @ -20 to 100 °F (-29 to 38 °C) | @ 200 °F (93 °C) | @ 300 °F (149 °C) | @ 350 °F (177 °C) |
| Carbon Steel | Class 150 | 285 psi | 260 psi | 230 psi | 215 psi |
| | Class 300 | 740 psi | 675 psi | 655 psi | 645 psi |
| | Class 600 ⁽³⁾ | 1000 psi | 800 psi | 700 psi | 650 psi |
| | Class 600 ⁽⁴⁾ | 1480 psi | 1350 psi | 1315 psi | 1292 psi |
| | Class 900 | 2220 psi | 2025 psi | 1970 psi | 1935 psi |
| | Class 1500 | 3705 psi | 3375 psi | 3280 psi | 3225 psi |
| | Class 2500 | 6170 psi | 5625 psi | 5470 psi | 5375 psi |
| 304 Stainless Steel | Class 150 | 275 psi | 235 psi | 205 psi | 190 psi |
| | Class 300 | 720 psi | 600 psi | 530 psi | 500 psi |
| | Class 600 ⁽⁵⁾ | 1000 psi | 800 psi | 700 psi | 650 psi |
| | Class 600 ⁽⁶⁾ | 1440 psi | 1200 psi | 1055 psi | 997 psi |
| | Class 900 | 2160 psi | 1800 psi | 1585 psi | 1497 psi |
| | Class 1500 | 3600 psi | 3000 psi | 2640 psi | 2495 psi |
| | Class 2500 | 6000 psi | 5000 psi | 4400 psi | 4160 psi |

(1) Liner temperature limits must also be considered.

(2) 30-in. and 36-in. AWWA C207 Class D rated to 150 psi at atmospheric temperature.

(3) Option Code C6.

(4) Option Code C7.

(5) Option Code S6.

(6) Option Code S7.

Table 98: Temperature vs. Pressure Limits for AS2129 Table D and E flanges ⁽¹⁾

| Sensor temperature vs. pressure limits for AS2129 Table D and E flanges (4-in. to 24-in. line sizes) | | | | | |
|--|---------------|--------------------------------|-------------------|-------------------|-------------------|
| Flange Material | Flange Rating | Pressure | | | |
| | | @ -29 to 50 °C (-20 to 122 °F) | @ 100 °C (212 °F) | @ 150 °C (302 °F) | @ 200 °C (392 °F) |
| Carbon Steel | D | 101.6 psi | 101.6 psi | 101.6 psi | 94.3 psi |
| | E | 203.1 psi | 203.1 psi | 203.1 psi | 188.6 psi |

(1) Liner temperature limits must also be considered.

Table 99: Temperature vs. Pressure Limits for EN 1092-1 flanges ⁽¹⁾

| Sensor temperature vs. pressure limits for EN 1092-1 flanges (15 mm to 600 mm Line Sizes) | | | | | |
|---|---------------|--------------------------------|-------------------|-------------------|-------------------|
| Flange material | Flange rating | Pressure | | | |
| | | @ -29 to 50 °C (-20 to 122 °F) | @ 100 °C (212 °F) | @ 150 °C (302 °F) | @ 175 °C (347 °F) |
| Carbon Steel | PN 10 | 10 bar | 10 bar | 9.7 bar | 9.5 bar |
| | PN 16 | 16 bar | 16 bar | 15.6 bar | 15.3 bar |

Table 99: Temperature vs. Pressure Limits for EN 1092-1 flanges ⁽¹⁾ (continued)

| Sensor temperature vs. pressure limits for EN 1092-1 flanges (15 mm to 600 mm Line Sizes) | | | | | |
|---|---------------|--------------------------------|-------------------|-------------------|-------------------|
| Flange material | Flange rating | Pressure | | | |
| | | @ -29 to 50 °C (-20 to 122 °F) | @ 100 °C (212 °F) | @ 150 °C (302 °F) | @ 175 °C (347 °F) |
| | PN 25 | 25 bar | 25 bar | 24.4 bar | 24.0 bar |
| | PN 40 | 40 bar | 40 bar | 39.1 bar | 38.5 bar |
| 304 Stainless Steel | PN 10 | 9.1 bar | 7.5 bar | 6.8 bar | 6.5 bar |
| | PN 16 | 14.7 bar | 12.1 bar | 11.0 bar | 10.6 bar |
| | PN 25 | 23 bar | 18.9 bar | 17.2 bar | 16.6 bar |
| | PN 40 | 36.8 bar | 30.3 bar | 27.5 bar | 26.5 bar |

(1) Liner temperature limits must also be considered.

Physical specifications

Non-wetted materials

| | |
|-----------------------|---|
| Sensor Pipe | Type 304/304L SST or Type 316/316L SST |
| Flanges | Carbon steel, Type 304/304L SST, or Type 316/316L SST |
| Coil housing | Rolled carbon steel |
| Paint | Polyurethane coat (2.6 mils or greater) |
| Optional coil housing | 316/316L unpainted, option code SH |

Process-wetted materials

| | |
|------------|---|
| Lining | PTFE, ETFE, PFA, Polyurethane, Neoprene, Linatex, Adiprene, PFA+ |
| Electrodes | 316L SST, Nickel Alloy 276 (UNS N10276), Tantalum, 80% Platinum-20% Iridium, Titanium |

Flat-faced flanges

Sensors ordered with flat-faced flanges and Neoprene or Linatex liners are manufactured with the liner extending to the outer dimension of the flange. All other liner selections extend to the diameter of raised face dimension and create a raised surface on the flange face.

Process connections

| | |
|-------------|--|
| ASME B16.5 | <ul style="list-style-type: none"> ■ Class 150: ½ -in. to 24-in. (15 mm to 600 mm) ■ Class 300: ½ -in. to 24-in. (15 mm to 600 mm) ■ Class 600: ½ -in. to 24-in. (15 mm to 600 mm)⁽¹⁾ ■ Class 900: 1-in. to 12-in. (25 mm to 300 mm)⁽²⁾ ■ Class 1500: 1½ -in. to 12-in. (40 mm to 300 mm)⁽²⁾ ■ 1½ -in. to 6-in. (40 mm to 150 mm)⁽²⁾ |
| ASME B16.47 | <ul style="list-style-type: none"> ■ Class 150: 30-in. to 36-in. (750 mm to 900 mm) ■ Class 300: 30-in. to 36-in. (750 mm to 900 mm) |

| | |
|-----------|--|
| AWWA C207 | <ul style="list-style-type: none"> ■ Class D: 30-in. and 36-in. (750 mm and 900 mm) |
| MSS SP44 | <ul style="list-style-type: none"> ■ Class 150: 30-in. to 36-in. (750 mm to 900 mm) |
| EN 1092-1 | <ul style="list-style-type: none"> ■ PN10: 200 mm to 900 mm (8-in. to 36-in.) ■ PN16: 100 mm to 900 mm (4 -in. to 36-in.) ■ PN25: 200 mm to 900 mm (8-in. to 36-in.) ■ PN40: 15 mm to 900 mm (½-in. to 36-in.) |
| AS2129 | <ul style="list-style-type: none"> ■ Table D and Table E: 15 mm to 900 mm (½-in. to 36-in.) |
| AS4087 | <ul style="list-style-type: none"> ■ PN16, PN21, PN35: 50 mm to 600 mm (2-in. to 24-in.) |
| JIS B2220 | <ul style="list-style-type: none"> ■ 10K, 20K, 40K: 15 mm to 200 mm (½-in. to 8-in.) |

(1) For PTFE, PFA, PFA+, and ETFE, maximum working pressure is derated to 1000 psig.

(2) For Class 900 and higher flange ratings, liner selection is limited to resilient liners.

Electrical connections

| | |
|-------------------------|--|
| Conduit entries | Available with 1/2 inch NPT and M20 |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

Process reference electrode (optional)

A process reference electrode can be installed similarly to the measurement electrodes through the sensor lining. It will be made of the same material as the measurement electrodes.

Grounding rings (optional)

Grounding rings can be installed between the flange and the sensor face on both ends of the sensor. Single ground rings can be installed on either end of the sensor. They have an I.D. slightly larger than the sensor I.D. and an external tab to attach ground wiring. Grounding rings are available in 316L SST, Nickel Alloy 276 (UNS N10276), titanium, and tantalum. See [Figure 18](#).

Lining protectors (optional)

Lining protectors can be installed between the flange and the sensor face on both ends of the sensor. The leading edge of lining material is protected by the lining protector; lining protectors cannot be removed once they are installed. Lining protectors are available in 316L SST, Nickel Alloy 276 (UNS N10276), and titanium. See [Figure 17](#).

Dimensions

See [Figure 8](#) through [Figure 16](#).

Weight

See [Table 102](#) through [Table 120](#).

8711-M/L Wafer Sensor Specifications



Functional specifications

Service

Conductive liquids and slurries

Line sizes

1.5-in. to 8-in. (40 mm to 200 mm)

Sensor coil resistance

10 - 18 Ω

Interchangeability

Rosemount 8711-M/L Sensors are interchangeable with 8712EM and 8732EM Transmitters. System accuracy is maintained regardless of line size or optional features. Each sensor nameplate has a sixteen-digit calibration number that can be entered into a transmitter during configuration.

Upper range limit

39.37 ft/s (12 m/s)

Process temperature limits

| | |
|-------------|-------------------------------|
| ETFE lining | -20 to 300 °F (-29 to 149 °C) |
| PTFE lining | -20 to 350 °F (-29 to 177 °C) |

Ambient temperature limits

-20 to 140 °F (-29 to 60 °C)

Maximum safe working pressure at 100 °F (38 °C)

| | |
|-------------|--|
| ETFE lining | Full vacuum to 740 psi (5.1 MPa) |
| PTFE lining | <ul style="list-style-type: none"> ■ Line sizes 1.5-in. (40 mm) through 4-in. (100 mm); Full vacuum to 740 psi (5.1 MPa) ■ Consult Technical Support for vacuum applications with line sizes of 6-in. (150 mm) or larger |

Submergence protection IP68

The remote mount 8711-M/L sensor is rated IP68 for submergence to a depth of 33 ft (10 m) for a period of 48 hours. IP68 rating requires that the transmitter must be remote mount. Installer must use IP68 approved cable glands, conduit connections, and/or

conduit plugs. For more details on proper installation techniques for IP68, reference Rosemount Technical Document 00840-0100-4750 available on www.rosemount.com.

Conductivity limits

Process liquid must have a minimum conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater for 8711.

Physical specifications

Non-wetted materials

| | |
|--------------|--|
| Sensor body | <ul style="list-style-type: none"> ■ 303 SST ■ CF3M or CF8M ■ Type 304/304L |
| Coil housing | Rolled carbon steel |
| Paint | Polyurethane coat (2.6 mils or greater) |

Process-wetted materials

| | |
|------------|---|
| Lining | PTFE, ETFE |
| Electrodes | 316L SST, Nickel Alloy 276 (UNS N10276), Tantalum, 80% Platinum–20% Iridium, Titanium |

Electrical connections

| | |
|-------------------------|---|
| Conduit entries | Available with 1/2 inch NPT and M20. See ordering table footnotes for details |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

Process reference electrode (optional)

A process reference electrode can be installed similarly to the measurement electrodes through the sensor lining. It will be made of the same material as the measurement electrodes.

Grounding rings (optional)

Grounding rings can be installed between the flange and the sensor face on both ends of the sensor. They have an I.D. slightly smaller than the sensor I.D. and an external tab to attach ground wiring. Grounding rings are available in 316L SST, Nickel Alloy 276 (UNS N10276), titanium, and tantalum. See [Table 92](#).

Dimensions

See [Figure 19](#).

Weight

See [Table 121](#).

Process connections—Mounts between these flange configurations

| | |
|------------|------------------------|
| ASME B16.5 | Class 150, 300 |
| EN 1092-1 | PN10, PN16, PN25, PN40 |
| JIS B2220 | 10K, 20K |

| | |
|--------|------------------|
| AS4087 | PN16, PN21, PN35 |
|--------|------------------|

Studs, nuts, and washers—MK2-carbon steel

| Component | ASME B16.5 | EN1092-1 |
|--------------------|--|-----------------------------------|
| Studs, full thread | CS, ASTM A193, Grade B7 | CS, ASTM A193, Grade B7 |
| Hex nuts | ASTM A194 Grade 2H | ASTM A194 Grade 2H; DIN 934 H = D |
| Flat washers | CS, Type A, Series N, SAE per ANSI B18.2.1 | CS, DIN 125 |
| All items | Clear, chromate zinc-plated | Yellow zinc-plated |

Studs, nuts, and washers—MK3-316 SST

| Component | ASME B16.5 | EN1092-1 |
|--------------------|---|-----------------------------------|
| Studs, full thread | ASTM A193, Grade B8M Class 1 | ASTM A193, Grade B8M Class 1 |
| Hex nuts | ASTM A194 Grade 8M | ASTM A194 Grade 8M; DIN 934 H = D |
| Flat washers | 316 SST, Type A, Series N, SAE per ANSI B18.2.1 | 316 SST, DIN 125 |

8721 Hygienic (Sanitary) Sensor Specifications



Functional specifications

Service

Conductive liquids and slurries

Line sizes

1/2 -in. to 4-in. (15 mm to 100 mm)

Sensor coil resistance

5 -10 Ω

Interchangeability

Rosemount 8721 sensors are interchangeable with Rosemount 8712EM and 8732EM transmitters. System accuracy is maintained regardless of line size or optional features. Each sensor label has a 16 digit calibration number that can be entered into the transmitter during configuration.

Conductivity limits

Process liquid must have a minimum conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater. Excludes the effect of interconnecting cable length in remote mount transmitter installations.

Flow rate range

Capable of processing signals from fluids that are traveling between 0.04 and 39 ft/s (0.01 to 12 m/s) for both forward and reverse flow in all sensor sizes. Full scale continuously adjustable between -39 and 39 ft/s (-12 to 12 m/s).

Sensor ambient temperature limits

14 to 140 °F (-15 to 60 °C)

Process temperature limits

PFA lining -20 to 350 °F (-29 to 177 °C)

Table 100: Pressure limits

| Line size | Max working pressure | CE mark max. working pressure |
|--------------------|----------------------|-------------------------------|
| 1/2 -in. (15 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 1-in. (25 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 1 1/2 -in. (40 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 2-in. (50 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 2 1/2 -in. (65 mm) | 300 psi (20.7 bar) | 240 psi (16.5 bar) |
| 3 -in. (80 mm) | 300 psi (20.7 bar) | 198 psi (13.7 bar) |
| 4-in. (100 mm) | 210 psi (14.5 bar) | 148 psi (10.2 bar) |

Vacuum limits

Full vacuum at maximum lining material temperature; consult Technical Support.

Submergence protection IP68

The remote mount 8721 sensor is rated IP68 for submergence to a depth of 33 ft (10 m) for a period of 48 hours. IP68 rating requires that the transmitter must be remote mount. Installer must use IP68 approved cable glands, conduit connections, and/or conduit plugs. For more details on proper installation techniques for IP68, reference Rosemount Technical Note 00840-0100-4750 available on www.rosemount.com.

Sanitary fitting torque

Hand tighten IDF nut to approximately 50 in-lbs [5 1/2 Newton-meters (N-m)] of torque. Re-tighten after a few minutes until there are no leaks (up to 130 in-lbs [14 1/2 Newton-meters (N-m)] of torque).

Fittings that continue to leak at a higher torque may be distorted or damaged.

Physical specifications

Mounting

Integrally mounted transmitters are factory-wired and do not require interconnecting cables. The transmitter can rotate in 90° increments. Remote mounted transmitters require only a single conduit connection to the sensor.

Non-wetted materials

| | |
|-----------------------|---|
| Sensor | 304 Stainless Steel (wrapper), 304 Stainless Steel (pipe) |
| Terminal junction box | Low copper aluminum Optional: 304 Stainless Steel |

Process wetted materials (sensor)

| | |
|------------|--|
| Liner | PFA with Ra < 32µ in. (0.81 µm) |
| Electrodes | <ul style="list-style-type: none"> ■ 316L SST with Ra < 15µ in. (0.38 µm) ■ Nickel Alloy 276 (UNS N10276) with Ra < 15µ in. (0.38 µm) ■ 80% Platinum-20% Iridium with Ra < 15µ in. (0.38 µm) |

Process connections

The Rosemount 8721 Sanitary Sensor is designed using a standard IDF fitting as the basis for providing a flexible, hygienic interface for a variety of process connections. The Rosemount 8721 Sensor has the threaded or “male” end of the IDF fitting on the ends of the base sensor. The sensor can be directly connected with user supplied IDF fittings and gaskets. If other process connections are needed, the IDF fittings and gaskets can be provided and welded directly into the sanitary process tubing, or can be supplied with adapters to standard Tri Clamp process connections. All connections are PED compliant for group 2 fluids.

| | |
|-----------------------------|--|
| Tri Clamp sanitary coupling | <ul style="list-style-type: none"> ■ IDF Sanitary Coupling (screw type) ■ IDF specification per BS4825 part 4 ■ ANSI Weld Nipple ■ DIN 11850 Weld Nipple ■ DIN 11851 (Imperial and Metric) ■ DIN 11864-1 form A ■ DIN 11864-2 form A ■ SMS 1145 ■ Cherry-Burrell I-Line |
|-----------------------------|--|

Process connection material

- 316L Stainless Steel with Ra < 32µ in. (0.81µm)
- Optional Electropolished Surface Finish with Ra < 15µ in. (0.38µm)

Process connection gasket material

- Silicone
- EPDM
- Viton

Electrical connections

| | |
|-------------------------|--|
| Conduit entries | 1/2 -in. NPT standard, M20 adapters |
| Terminal block screws | M3 |
| Safety grounding screws | External stainless assembly, M5; internal 6-32 (No. 6) |

Dimensions

See [Figure 20](#) through [Figure 27](#); [Table 122](#) and [Table 123](#).

Weight

Table 101: 8721 Sensor Weight

| Line size | Sensor only | 008721-0350 Tri Clamp fitting (Each) |
|--------------------|---------------------|--------------------------------------|
| 1/2 -in. (15 mm) | 4.84 lbs (2.20 kg) | 0.58 lbs (0.263 kg) |
| 1-in. (25 mm) | 4.52 lbs (2.05 kg) | 0.68 lbs (0.309 kg) |
| 1 1/2 -in. (40 mm) | 5.52 lbs (2.51 kg) | 0.88 lbs (0.400 kg) |
| 2-in. (50 mm) | 6.78 lbs (3.08 kg) | 1.30 lbs (0.591 kg) |
| 2 1/2 -in. (65 mm) | 8.79 lbs (4.00 kg) | 1.66 lbs (0.727 kg) |
| 3 -in. (80 mm) | 13.26 lbs (6.03 kg) | 2.22 lbs (1.01 kg) |
| 4-in. (100 mm) | 21.04 lbs (9.56 kg) | 3.28 lbs (1.49 kg) |

| | |
|------------------------------|---|
| Aluminum remote junction box | <ul style="list-style-type: none"> ■ Approximately 1 lb. (0.45 kg) ■ Paint - Polyurethane (1.3 to 5 mils) |
| SST remote junction box | <ul style="list-style-type: none"> ■ Approximately 2.5 lbs. (1.13 kg) ■ Unpainted |

8714D Reference Calibration Standard

Functional specifications

Ambient temperature limits

- Operating: -30 to 140 °F (-34 to 60°C)
- Storage: -40 to 140°F (-40 to 60°C)

Humidity Limits

0 to 95% relative humidity

Performance specifications

Accuracy

- ±0.05% of rate at 30 ft/s
- ±0.10% of rate at 10 ft/s and 3 ft/s

Warm-up Time

30 minutes

Ambient Temperature Effect

<0.015% of rate per 10°F (<0.027% per 10°C)

Humidity Effect

- No effect from 0 to 60% relative humidity
- <0.10% of rate from 60 to 90% relative humidity

Long-Term Stability

< 0.10% of rate shift in one year.

Physical specifications

Electrical connections

Electrical connections are compatible with Model 8712E or Model 8732E terminal blocks. Electrical connections are not compatible with Model 8712H terminal block.

Mounting

Any position is acceptable.

Materials of construction

| | |
|---------|---------------------------------|
| Housing | Extruded aluminum |
| Covers | Stamped aluminum, silk-screened |
| Paint | Epoxy polyester |

Weight

Approximately 3 lb (2 kg).

Product Certifications

For detailed approval certification information and installation drawings, please see the appropriate document listed below:

- Document number 00825-MA00-0001: *Rosemount 8700M Approval Document - IECEx and ATEX*
- Document number 00825-MA00-0002: *Rosemount 8700M Approval Document – Class Division*
- Document number 00825-MA00-0003: *Rosemount 8700M Approval Document - North America Zone*
- Document number 00825-MA00-0007: *Rosemount 8700M Approval Document - NEPSI EN Zone 1 China*

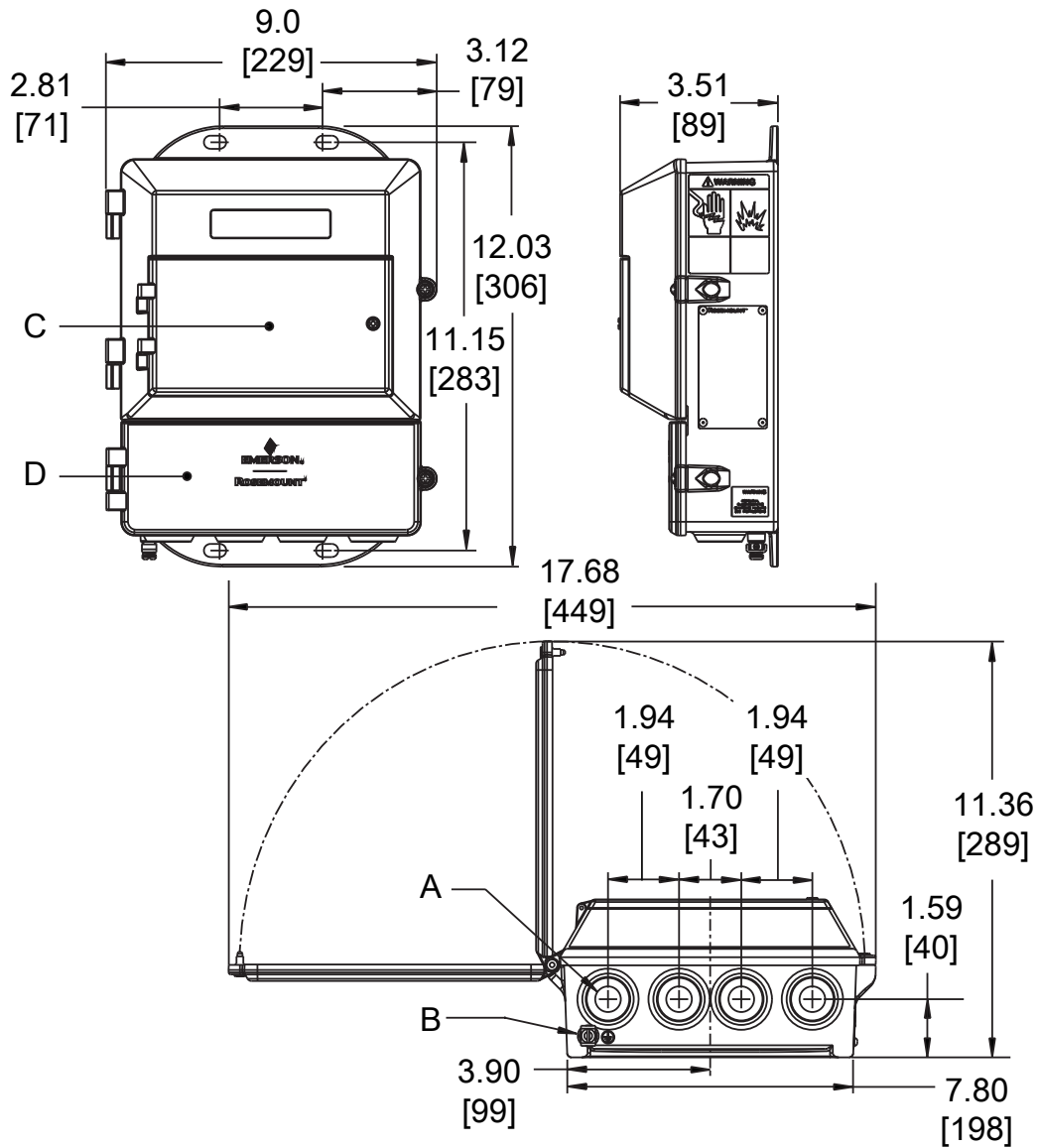
NAMUR Compliance (8732E)

- NE21: Electromagnetic Compatibility of Equipment for Industrial Processes and Laboratory
- NE43: Standardisation of the Signal Level for the Failure Information of Digital Transmitters
- NE53: Software and Hardware of Field Devices and Signal Processing Devices with Digital Electronics
- NE70: Magnetic Inductive Flowmeters (MIF)
- NE95: Basic Principles of Homologation
- NE107: Self-Monitoring and Diagnosis of Field Devices

Dimensional drawings

8712 Wall mount transmitter dimensions

Figure 7: 8712 Wall mount transmitter dimensions



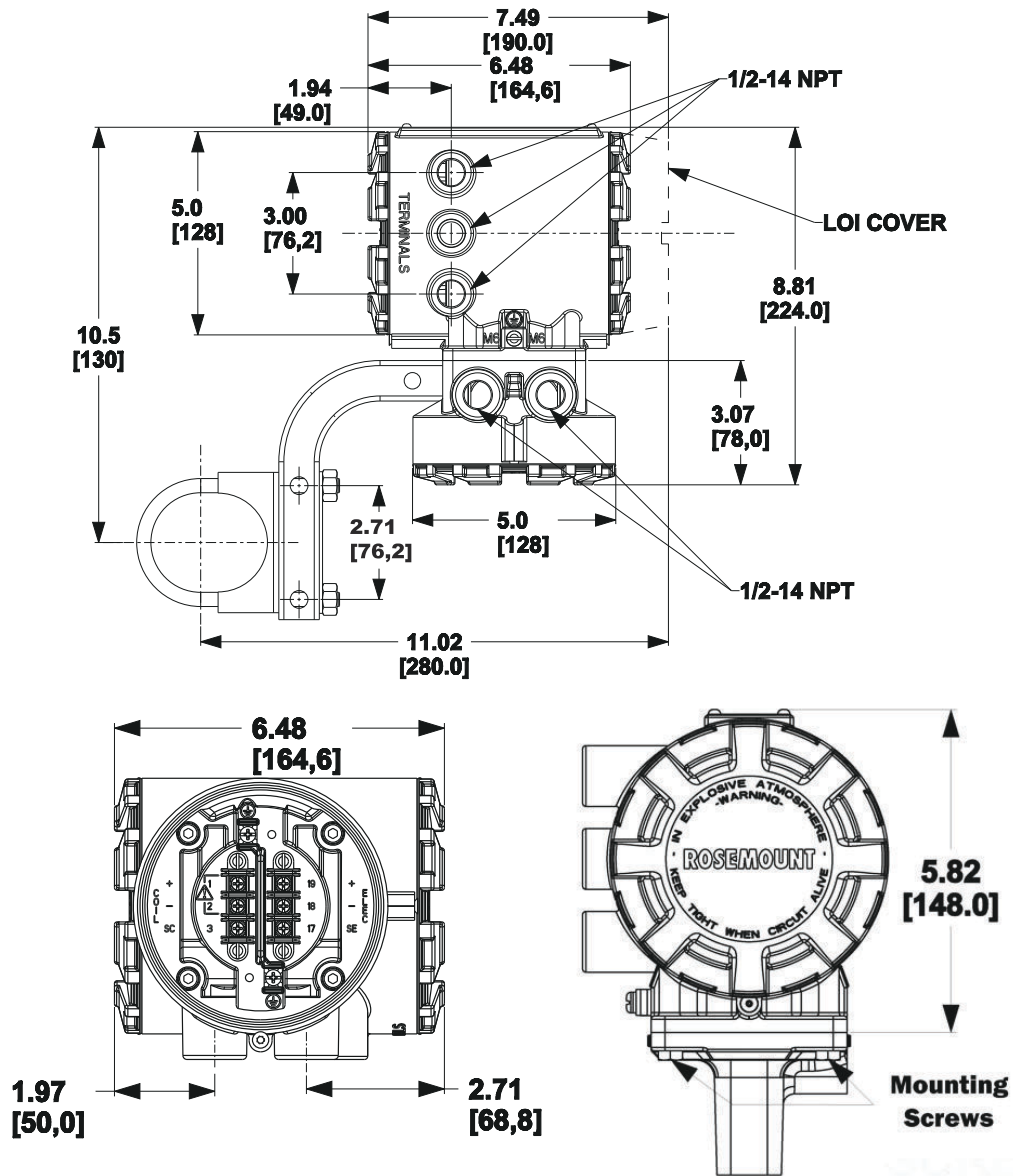
- A. Conduit entry, 1/2-14 NPT (4 places)
- B. Ground lug
- C. LOI keypad cover
- D. Lower cover opens for electrical connections

Note

Dimensions are in inches [Millimeters]

8732 Field mount transmitter dimensions

Figure 8: 8732 Field mount transmitter dimensions



8705-M Low pressure sensor dimensions

The following notes apply to [Figure 9](#) through [Figure 11](#) and [Table 102](#) through [Table 113](#):

2.1 OPTIONAL RELIEF VALVE ASSEMBLY IS 1.75" [44,5].

3. DIM "A" FOR FLOWMETERS WITH SLIP-ON FLAT FACE (SO/FF) FLANGES IS EQUAL TO THAT OF A RAISED FACE FLANGE (SO/RF). IF USING LINING PROTECTORS, SEE "LINING PROTECTOR" SHEET. IF USING GROUND RINGS, SEE "GROUND RING" SHEET.

5. FOR BREVITY, THE MODEL NUMBER LIST ONLY CONTAINS THE CODES FOR CARBON STEEL FLANGES. 304 AND 316 STAINLESS STEEL FLANGES ARE DIMENSIONALLY IDENTICAL TO CARBON STEEL. USE THE TABLE BELOW TO FIND THE CARBON STEEL CODE THAT CORRESPONDS TO EACH STAINLESS STEEL CODE.

| STAINLESS STEEL CODES | ARE THE SAME DIMENSIONS AS CARBON STEEL CODE |
|-----------------------|--|
| S,P | C |
| T,R | D |
| G,H | F |
| K,L | J |

Figure 9: 8705-M Flanged sensor 0.5-in. to 2.5-in. (DN 15 mm to 65 mm) slip-on flanges—low pressure (P< Class 300)

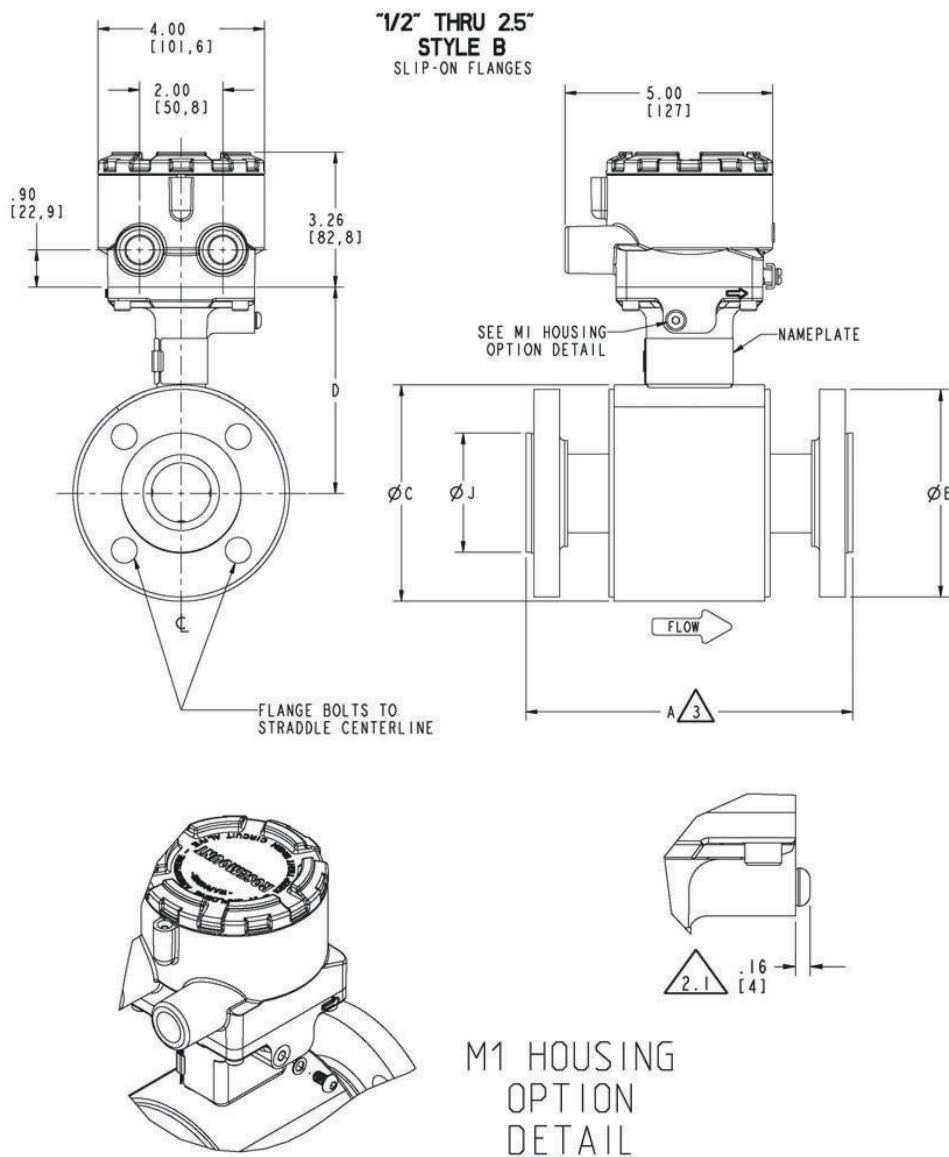


Table 102: 8705-M Flanged Sensor 0.5-in. to 2.5-in. slip-on flanges—low pressure (P ≤ Class 300)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | FLOW TUBE WEIGHT (lbs.) |
|-------------------------------------|---|----------------|--------------|------------------|-----------------|--------------|-------------|------------------|----------------|------------------|---------|-------------------------|-------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | |
| 0.5 (15) ASME - 150 , SO / RF | 8705 _ _ _ 005C1 | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | 7.88 | 3.50 | 4.50 | 4.41 | 4.61 | 1.38 | 9 |
| 0.5 (15) ASME - 300 , SO / RF | 8705 _ _ _ 005C3 | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | 7.88 | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | 10 |
| 0.5 (15) DIN - PN40, SO / RF | 8705 _ _ _ 005CH | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | 7.88 | 3.74 | 4.50 | 4.41 | 4.61 | 1.77 | 10 |
| 0.5 (15) AS2129 TABLE D, SO / RF | 8705 _ _ _ 005CK | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.85 | 8 |
| 0.5 (15) AS2129 TABLE E, SO / RF | 8705 _ _ _ 005CL | 7.88 | | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.85 | 8 |
| 0.5 (15) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 005CP | 7.88 | | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.77 | 10 |
| 0.5 (15) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 005CR | 7.88 | | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.77 | 10 |
| 0.5 (15) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 005CT | 8.38 | | 8.38 | 8.48 | 8.38 | | 4.53 | 4.50 | 4.41 | 4.61 | 1.77 | 13 |
| 1 (25) ASME - 150 , SO / RF | 8705 _ _ _ 010C1 | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | 7.88 | 4.25 | 4.50 | 4.41 | 4.61 | 2.00 | 11 |
| 1 (25) ASME - 300 , SO / RF | 8705 _ _ _ 010C3 | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | 7.88 | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | 14 |
| 1 (25) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 010C6 | 8.67 | 8.67 | 8.67 | 8.76 | 8.67 | | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | 15 |
| 1 (25) DIN - PN40, SO / RF | 8705 _ _ _ 010CH | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | 7.88 | 4.53 | 4.50 | 4.41 | 4.61 | 2.68 | 14 |
| 1 (25) AS2129 TABLE D, SO / RF | 8705 _ _ _ 010CK | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | | 4.53 | 4.50 | 4.41 | 4.61 | 2.56 | 10 |
| 1 (25) AS2129 TABLE E, SO / RF | 8705 _ _ _ 010CL | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | | 4.53 | 4.50 | 4.41 | 4.61 | 2.48 | 10 |
| 1 (25) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 010CP | 7.88 | | 7.88 | 7.97 | 7.88 | | 4.92 | 4.50 | 4.41 | 4.61 | 2.64 | 13 |
| 1 (25) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 010CR | 7.88 | | 7.88 | 7.97 | 7.88 | | 4.92 | 4.50 | 4.41 | 4.61 | 2.64 | 14 |
| 1 (25) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 010CT | 8.67 | | 8.67 | 8.76 | 8.67 | | 5.12 | 4.50 | 4.41 | 4.61 | 2.76 | 17 |
| 1.5 (40) ASME - 150 , SO / RF | 8705 _ _ _ 015C1 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 5.00 | 5.21 | 4.82 | 4.97 | 2.88 | 15 |
| 1.5 (40) ASME - 300 , SO / RF | 8705 _ _ _ 015C3 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.12 | 5.21 | 4.82 | 4.97 | 2.88 | 21 |
| 1.5 (40) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 015C6 | 8.63 | 8.63 | 8.56 | 8.65 | 8.63 | | 6.12 | 5.21 | 4.82 | 4.97 | 2.88 | 23 |
| 1.5 (40) DIN - PN40, SO / RF | 8705 _ _ _ 015CH | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 5.91 | 5.21 | 4.82 | 4.97 | 3.46 | 19 |
| 1.5 (40) AS2129 TABLE D, SO / RF | 8705 _ _ _ 015CK | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.31 | 5.21 | 4.82 | 4.97 | 3.07 | 12 |
| 1.5 (40) AS2129 TABLE E, SO / RF | 8705 _ _ _ 015CL | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.31 | 5.21 | 4.82 | 4.97 | 3.07 | 13 |
| 1.5 (40) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 015CP | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.51 | 5.21 | 4.82 | 4.97 | 3.19 | 16 |
| 1.5 (40) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 015CR | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.51 | 5.21 | 4.82 | 4.97 | 3.19 | 17 |
| 1.5 (40) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 015CT | 8.63 | | 8.56 | 8.65 | 8.63 | | 6.30 | 5.21 | 4.82 | 4.97 | 3.54 | 24 |
| 2 (50) ASME - 150 , SO / RF | 8705 _ _ _ 020C1 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.00 | 5.21 | 4.82 | 4.97 | 3.62 | 20 |
| 2 (50) ASME - 300 , SO / RF | 8705 _ _ _ 020C3 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.50 | 5.21 | 4.82 | 4.97 | 3.62 | 23 |
| 2 (50) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 020C6 | 8.78 | 8.78 | 8.71 | 8.80 | 8.78 | | 6.50 | 5.21 | 4.82 | 4.97 | 3.62 | 28 |
| 2 (50) DIN - PN40, SO / RF | 8705 _ _ _ 020CH | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.50 | 5.21 | 4.82 | 4.97 | 4.02 | 23 |
| 2 (50) AS2129 TABLE D, SO / RF | 8705 _ _ _ 020CK | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.91 | 5.21 | 4.82 | 4.97 | 3.54 | 14 |
| 2 (50) AS2129 TABLE E, SO / RF | 8705 _ _ _ 020CL | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.91 | 5.21 | 4.82 | 4.97 | 3.54 | 15 |
| 2 (50) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 020CP | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.10 | 5.21 | 4.82 | 4.97 | 3.78 | 18 |
| 2 (50) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 020CR | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.10 | 5.21 | 4.82 | 4.97 | 3.78 | 19 |
| 2 (50) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 020CT | 8.78 | | 8.71 | 8.80 | 8.78 | | 6.50 | 5.21 | 4.82 | 4.97 | 4.13 | 27 |
| 2 (50) AS4087 PN16, SO / RF | 8705 _ _ _ 020CU | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.91 | 5.21 | 4.82 | 4.97 | 3.54 | 16 |
| 2 (50) AS4087 PN21, SO / RF | 8705 _ _ _ 020CW | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.50 | 5.21 | 4.82 | 4.97 | 4.06 | 34 |
| 2 (50) AS4087 PN35, SO / RF | 8705 _ _ _ 020CY | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.50 | 5.21 | 4.82 | 4.97 | 4.06 | 96 |
| 2.5 (65) ASME - 150 , SO / RF | 8705 _ _ _ 025C1 | 7.82 | | 7.76 | | | | 7.00 | 6.31 | 5.37 | 5.52 | 4.12 | 27 |
| 2.5 (65) ASME - 300 , SO / RF | 8705 _ _ _ 025C3 | 7.82 | | 7.76 | | | | 7.50 | 6.31 | 5.37 | 5.52 | 4.12 | 32 |
| 2.5 (65) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 025C6 | 8.86 | | 8.80 | | | | 7.50 | 6.31 | 5.37 | 5.52 | 4.12 | 40 |
| 2.5 (65) DIN - PN16, SO / RF | 8705 _ _ _ 025CE | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 27 |
| 2.5 (65) DIN - PN40, SO / RF | 8705 _ _ _ 025CH | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 31 |
| 2.5 (65) AS2129 TABLE D, SO / RF | 8705 _ _ _ 025CK | 7.82 | | 7.76 | | | | 6.50 | 6.31 | 5.37 | 5.52 | 4.06 | 17 |
| 2.5 (65) AS2129 TABLE E, SO / RF | 8705 _ _ _ 025CL | 7.82 | | 7.76 | | | | 6.50 | 6.31 | 5.37 | 5.52 | 4.06 | 19 |
| 2.5 (65) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 025CP | 7.82 | | 7.76 | | | | 6.89 | 6.31 | 5.37 | 5.52 | 4.57 | 25 |
| 2.5 (65) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 025CR | 7.82 | | 7.76 | | | | 6.89 | 6.31 | 5.37 | 5.52 | 4.57 | 26 |
| 2.5 (65) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 025CT | 7.82 | | 7.76 | | | | 7.87 | 6.31 | 5.37 | 5.52 | 5.12 | 40 |
| 2.5 (65) AS4087 PN16, SO / RF | 8705 _ _ _ 025CU | 7.82 | | 7.76 | | | | 6.50 | 6.31 | 5.37 | 5.52 | 4.06 | 18 |
| 2.5 (65) AS4087 PN21, SO / RF | 8705 _ _ _ 025CW | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 24 |
| 2.5 (65) AS4087 PN35, SO / RF | 8705 _ _ _ 025CY | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 27 |

Table 103: 8705-M Flanged sensor DN 15mm to 65mm slip-on flanges—low pressure (P ≤ Class 300)—millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | FLOW TUBE WEIGHT (kg) |
|-------------------------------------|---|-------------------------------|------------------|---------------------|--------------------|-----------------|----------------|---------------------|-------------------|---------------------|---------|-------------------------------|----------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | |
| | | 0.5 (15) ASME - 150 , SO / RF | 8705 _ _ _ 005C1 | 200 | 200 | 200 | 203 | | | 200 | 200 | | |
| 0.5 (15) ASME - 300 , SO / RF | 8705 _ _ _ 005C3 | 200 | 200 | 200 | 203 | 200 | 200 | 95 | 114 | 112 | 117 | 35 | 5 |
| 0.5 (15) DIN - PN40, SO / RF | 8705 _ _ _ 005CH | 200 | 200 | 200 | 203 | 200 | 200 | 95 | 114 | 112 | 117 | 45 | 5 |
| 0.5 (15) AS2129 TABLE D, SO / RF | 8705 _ _ _ 005CK | 200 | 200 | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 47 | 4 |
| 0.5 (15) AS2129 TABLE E, SO / RF | 8705 _ _ _ 005CL | 200 | | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 47 | 4 |
| 0.5 (15) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 005CP | 200 | | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 45 | 4 |
| 0.5 (15) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 005CR | 200 | | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 45 | 5 |
| 0.5 (15) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 005CT | 213 | | 213 | 215 | 213 | | 115 | 114 | 112 | 117 | 45 | 6 |
| 1 (25) ASME - 150 , SO / RF | 8705 _ _ _ 010C1 | 200 | 200 | 200 | 202 | 200 | 200 | 108 | 114 | 112 | 117 | 51 | 5 |
| 1 (25) ASME - 300 , SO / RF | 8705 _ _ _ 010C3 | 200 | 200 | 200 | 202 | 200 | 200 | 124 | 114 | 112 | 117 | 51 | 6 |
| 1 (25) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 010C6 | 220 | 220 | 220 | 223 | 220 | | 124 | 114 | 112 | 117 | 51 | 7 |
| 1 (25) DIN - PN40, SO / RF | 8705 _ _ _ 010CH | 200 | 200 | 200 | 202 | 200 | 200 | 115 | 114 | 112 | 117 | 68 | 6 |
| 1 (25) AS2129 TABLE D, SO / RF | 8705 _ _ _ 010CK | 200 | 200 | 200 | 202 | 200 | | 115 | 114 | 112 | 117 | 65 | 4 |
| 1 (25) AS2129 TABLE E, SO / RF | 8705 _ _ _ 010CL | 200 | 200 | 200 | 202 | 200 | | 115 | 114 | 112 | 117 | 63 | 5 |
| 1 (25) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 010CP | 200 | | 200 | 202 | 200 | | 125 | 114 | 112 | 117 | 67 | 6 |
| 1 (25) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 010CR | 200 | | 200 | 202 | 200 | | 125 | 114 | 112 | 117 | 67 | 6 |
| 1 (25) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 010CT | 220 | | 220 | 223 | 220 | | 130 | 114 | 112 | 117 | 70 | 8 |
| 1.5 (40) ASME - 150 , SO / RF | 8705 _ _ _ 015C1 | 200 | 200 | 198 | 201 | 200 | 200 | 127 | 132 | 122 | 126 | 73 | 7 |
| 1.5 (40) ASME - 300 , SO / RF | 8705 _ _ _ 015C3 | 200 | 200 | 198 | 201 | 200 | 200 | 155 | 132 | 122 | 126 | 73 | 9 |
| 1.5 (40) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 015C6 | 219 | 219 | 217 | 220 | 219 | | 155 | 132 | 122 | 126 | 73 | 11 |
| 1.5 (40) DIN - PN40, SO / RF | 8705 _ _ _ 015CH | 200 | 200 | 198 | 201 | 200 | 200 | 150 | 132 | 122 | 126 | 88 | 9 |
| 1.5 (40) AS2129 TABLE D, SO / RF | 8705 _ _ _ 015CK | 200 | | 198 | 201 | 200 | | 135 | 132 | 122 | 126 | 78 | 6 |
| 1.5 (40) AS2129 TABLE E, SO / RF | 8705 _ _ _ 015CL | 200 | | 198 | 201 | 200 | | 135 | 132 | 122 | 126 | 78 | 6 |
| 1.5 (40) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 015CP | 200 | | 198 | 201 | 200 | | 140 | 132 | 122 | 126 | 81 | 7 |
| 1.5 (40) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 015CR | 200 | | 198 | 201 | 200 | | 140 | 132 | 122 | 126 | 81 | 8 |
| 1.5 (40) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 015CT | 219 | | 217 | 220 | 219 | | 160 | 132 | 122 | 126 | 90 | 11 |
| 2 (50) ASME - 150 , SO / RF | 8705 _ _ _ 020C1 | 200 | 200 | 198 | 201 | 200 | 200 | 152 | 132 | 122 | 126 | 92 | 9 |
| 2 (50) ASME - 300 , SO / RF | 8705 _ _ _ 020C3 | 200 | 200 | 198 | 201 | 200 | 200 | 165 | 132 | 122 | 126 | 92 | 11 |
| 2 (50) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 020C6 | 223 | 223 | 221 | 224 | 223 | | 165 | 132 | 122 | 126 | 92 | 13 |
| 2 (50) DIN - PN40, SO / RF | 8705 _ _ _ 020CH | 200 | 200 | 198 | 201 | 200 | 200 | 165 | 132 | 122 | 126 | 102 | 11 |
| 2 (50) AS2129 TABLE D, SO / RF | 8705 _ _ _ 020CK | 200 | | 198 | 201 | 200 | | 150 | 132 | 122 | 126 | 90 | 6 |
| 2 (50) AS2129 TABLE E, SO / RF | 8705 _ _ _ 020CL | 200 | | 198 | 201 | 200 | | 150 | 132 | 122 | 126 | 90 | 7 |
| 2 (50) JIS B220 - 10K, SO / RF | 8705 _ _ _ 020CP | 200 | | 198 | 201 | 200 | | 155 | 132 | 122 | 126 | 96 | 8 |
| 2 (50) JIS B220 - 20K, SO / RF | 8705 _ _ _ 020CR | 200 | | 198 | 201 | 200 | | 155 | 132 | 122 | 126 | 96 | 9 |
| 2 (50) JIS B220 - 40K, SO / RF | 8705 _ _ _ 020CT | 223 | | 221 | 224 | 223 | | 165 | 132 | 122 | 126 | 105 | 12 |
| 2 (50) AS4087 PN16, SO / RF | 8705 _ _ _ 020CU | 200 | | 198 | 201 | 200 | | 150 | 132 | 122 | 126 | 90 | 7 |
| 2 (50) AS4087 PN21, SO / RF | 8705 _ _ _ 020CW | 200 | | 198 | 201 | 200 | | 165 | 132 | 122 | 126 | 103 | 16 |
| 2 (50) AS4087 PN35, SO / RF | 8705 _ _ _ 020CY | 200 | | 198 | 201 | 200 | | 165 | 132 | 122 | 126 | 103 | 44 |
| 2.5 (65) ASME - 150 , SO / RF | 8705 _ _ _ 025C1 | 199 | | 197 | | | | 178 | 160 | 136 | 140 | 105 | 12 |
| 2.5 (65) ASME - 300 , SO / RF | 8705 _ _ _ 025C3 | 199 | | 197 | | | | 191 | 160 | 136 | 140 | 105 | 15 |
| 2.5 (65) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 025C6 | 225 | | 224 | | | | 191 | 160 | 136 | 140 | 105 | 18 |
| 2.5 (65) DIN - PN16, SO / RF | 8705 _ _ _ 025CE | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 12 |
| 2.5 (65) DIN - PN40, SO / RF | 8705 _ _ _ 025CH | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 14 |
| 2.5 (65) AS2129 TABLE D, SO / RF | 8705 _ _ _ 025CK | 199 | | 197 | | | | 165 | 160 | 136 | 140 | 103 | 8 |
| 2.5 (65) AS2129 TABLE E, SO / RF | 8705 _ _ _ 025CL | 199 | | 197 | | | | 165 | 160 | 136 | 140 | 103 | 8 |
| 2.5 (65) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 025CP | 199 | | 197 | | | | 175 | 160 | 136 | 140 | 116 | 11 |
| 2.5 (65) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 025CR | 199 | | 197 | | | | 175 | 160 | 136 | 140 | 116 | 12 |
| 2.5 (65) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 025CT | 199 | | 197 | | | | 200 | 160 | 136 | 140 | 130 | 18 |
| 2.5 (65) AS4087 PN16, SO / RF | 8705 _ _ _ 025CU | 199 | | 197 | | | | 165 | 160 | 136 | 140 | 103 | 8 |
| 2.5 (65) AS4087 PN21, SO / RF | 8705 _ _ _ 025CW | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 11 |
| 2.5 (65) AS4087 PN35, SO / RF | 8705 _ _ _ 025CY | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 12 |

Figure 10: 8705-M Flanged Sensor 3-in. to 36-in. (DN 80mm to 900mm) slip-on flanges—low pressure ($P \leq$ Class 300)

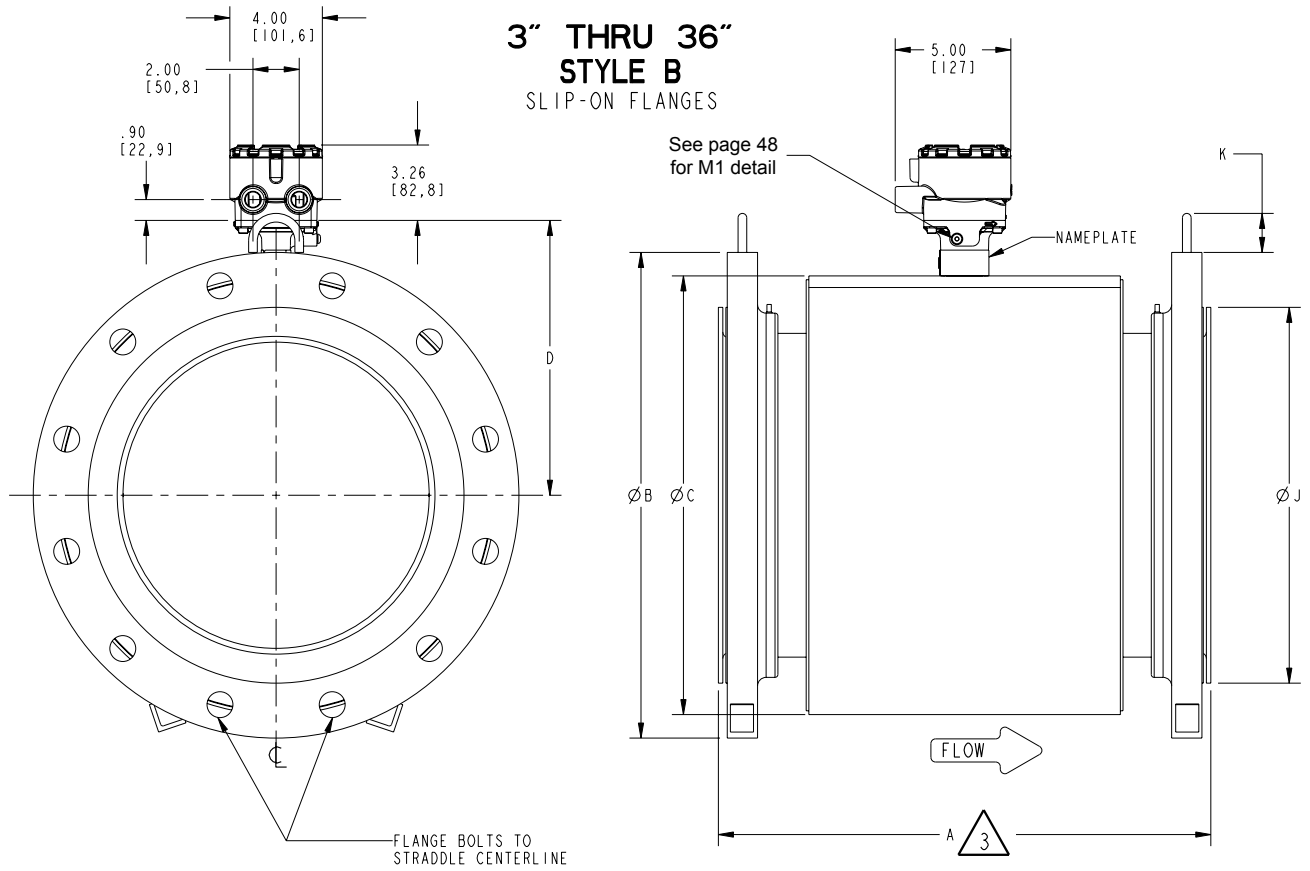


Table 104: 8705-M Flanged Sensor 3-in. to 6-in. slip-on flanges—low pressure (P ≤ Class 300)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "E" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|------------------------------------|---|--------------------|--------------------|------------------------|-----------------------|-----------------|----------------|---------------------|-------------------|---------------------|---------|-------------------------------|--------------------------------|----------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 3 (80) ASME - 150 , SO / RF | 8705 _ _ _ 030C1 | 7.87 | 7.87 | 7.75 | 7.84 | 7.87 | 7.83 | 7.50 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 34 |
| 3 (80) ASME - 300 , SO / RF | 8705 _ _ _ 030C3 | 8.63 | 8.63 | 8.51 | 8.60 | 8.63 | 8.60 | 8.25 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 43 |
| 3 (80) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 030C6 | 12.40 | 12.40 | 12.29 | 12.39 | 12.40 | | 8.25 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 53 |
| 3 (80) EN1092-1- PN40, SO / RF | 8705 _ _ _ 030CH | 7.87 | 7.87 | 7.75 | 7.84 | 7.87 | 7.87 | 7.87 | 7.21 | 5.82 | 5.97 | 5.43 | 1.70 | 38 |
| 3 (80) AS2129 TABLE D, SO / RF | 8705 _ _ _ 030CK | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.80 | 1.70 | 24 |
| 3 (80) AS2129 TABLE E, SO / RF | 8705 _ _ _ 030CL | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.80 | 1.70 | 24 |
| 3 (80) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 030CP | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.96 | 1.70 | 28 |
| 3 (80) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 030CR | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.87 | 7.21 | 5.82 | 5.97 | 5.20 | 1.70 | 34 |
| 3 (80) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 030CT | 12.40 | | 12.29 | 12.39 | 12.40 | | 8.27 | 7.21 | 5.82 | 5.97 | 5.51 | 1.70 | 52 |
| 3 (80) AS4087 PN16, SO / RF | 8705 _ _ _ 030CU | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.80 | 1.70 | 20 |
| 3 (80) AS4087 PN21, SO / RF | 8705 _ _ _ 030CW | 7.87 | | 7.75 | 7.84 | 7.87 | | 8.07 | 7.21 | 5.82 | 5.97 | 5.55 | 1.70 | 56 |
| 3 (80) AS4087 PN35, SO / RF | 8705 _ _ _ 030CY | 7.87 | | 7.75 | 7.84 | 7.87 | | 8.07 | 7.21 | 5.82 | 5.97 | 5.55 | 1.70 | 109 |
| 4 (100) ASME - 150 , SO / RF | 8705 _ _ _ 040C1 | 9.84 | 9.84 | 9.69 | 9.78 | 9.84 | 9.84 | 9.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 45 |
| 4 (100) ASME - 300 , SO / RF | 8705 _ _ _ 040C3 | 10.88 | 10.88 | 10.73 | 10.82 | 10.88 | 10.88 | 10.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 65 |
| 4 (100) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 040C6 | 12.83 | 12.83 | 12.70 | 12.79 | 12.83 | | 10.75 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 94 |
| 4 (100) EN1092-1 - PN16, SO / RF | 8705 _ _ _ 040CE | 9.84 | 9.81 | 9.69 | 9.78 | 9.81 | 9.81 | 8.66 | 7.91 | 6.17 | 6.32 | 6.22 | 1.70 | 41 |
| 4 (100) EN1092-1 - PN40, SO / RF | 8705 _ _ _ 040CH | 9.84 | 9.81 | 9.69 | 9.78 | 9.81 | 9.81 | 9.25 | 7.91 | 6.17 | 6.32 | 6.38 | 1.70 | 49 |
| 4 (100) AS2129 TABLE D, SO / RF | 8705 _ _ _ 040CK | 9.84 | 9.84 | 9.69 | 9.78 | 9.84 | | 8.46 | 7.91 | 6.17 | 6.32 | 6.06 | 1.70 | 31 |
| 4 (100) AS2129 TABLE E, SO / RF | 8705 _ _ _ 040CL | 9.84 | 9.84 | 9.69 | 9.78 | 9.84 | | 8.46 | 7.91 | 6.17 | 6.32 | 6.06 | 1.70 | 33 |
| 4 (100) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 040CP | 9.84 | | 9.69 | 9.78 | 9.84 | | 8.27 | 7.91 | 6.17 | 6.32 | 5.95 | 1.70 | 35 |
| 4 (100) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 040CR | 9.84 | | 9.69 | 9.78 | 9.84 | | 8.86 | 7.91 | 6.17 | 6.32 | 6.30 | 1.70 | 44 |
| 4 (100) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 040CT | 12.83 | | 12.70 | 12.79 | 12.83 | | 9.84 | 7.91 | 6.17 | 6.32 | 6.50 | 1.70 | 75 |
| 4 (100) AS4087 PN16, SO / RF | 8705 _ _ _ 040CU | 9.84 | | 9.69 | 9.78 | 9.84 | | 8.46 | 7.91 | 6.17 | 6.32 | 6.06 | 1.70 | 28 |
| 4 (100) AS4087 PN21, SO / RF | 8705 _ _ _ 040CW | 9.84 | | 9.69 | 9.78 | 9.84 | | 9.06 | 7.91 | 6.17 | 6.32 | 6.57 | 1.70 | 68 |
| 4 (100) AS4087 PN35, SO / RF | 8705 _ _ _ 040CY | 9.84 | | 9.69 | 9.78 | 9.84 | | 9.06 | 7.91 | 6.17 | 6.32 | 6.57 | 1.70 | 119 |
| 5 (125) ASME - 150 , SO / RF | 8705 _ _ _ 050C1 | 9.79 | | 9.71 | | | | 10.00 | 9.61 | 7.02 | 7.17 | 7.31 | 1.70 | 54 |
| 5 (125) ASME - 300 , SO / RF | 8705 _ _ _ 050C3 | 10.94 | | 10.86 | | | | 11.00 | 9.61 | 7.02 | 7.17 | 7.31 | 1.70 | 89 |
| 5 (125) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 050C6 | 12.89 | | 12.81 | | | | 13.00 | 9.61 | 7.02 | 7.17 | 7.31 | 1.70 | 157 |
| 5 (125) EN1092-1 - PN16, SO / RF | 8705 _ _ _ 050CE | 9.79 | | 9.50 | | | | 9.84 | 9.61 | 7.02 | 7.17 | 7.40 | 1.70 | 55 |
| 5 (125) EN1092-1 - PN40, SO / RF | 8705 _ _ _ 050CH | 9.79 | | 9.71 | | | | 10.63 | 9.61 | 7.02 | 7.17 | 7.40 | 1.70 | 65 |
| 5 (125) AS2129 TABLE D, SO / RF | 8705 _ _ _ 050CK | 9.79 | | 9.71 | | | | 10.04 | 9.61 | 7.02 | 7.17 | 7.32 | 1.70 | 43 |
| 5 (125) AS2129 TABLE E, SO / RF | 8705 _ _ _ 050CL | 9.79 | | 9.71 | | | | 10.04 | 9.61 | 7.02 | 7.17 | 7.32 | 1.70 | 44 |
| 5 (125) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 050CP | 9.79 | | 9.71 | | | | 9.84 | 9.61 | 7.02 | 7.17 | 7.17 | 1.70 | 49 |
| 5 (125) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 050CR | 9.79 | | 9.71 | | | | 10.63 | 9.61 | 7.02 | 7.17 | 7.68 | 1.70 | 64 |
| 5 (125) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 050CT | 10.94 | | 10.86 | | | | 11.81 | 9.61 | 7.02 | 7.17 | 7.87 | 1.70 | 112 |
| 6 (150) ASME - 150 , SO / RF | 8705 _ _ _ 060C1 | 11.81 | 11.75 | 11.61 | 11.71 | 11.73 | 11.81 | 11.00 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 68 |
| 6 (150) ASME - 300 , SO / RF | 8705 _ _ _ 060C3 | 13.06 | 13.02 | 12.88 | 12.97 | 13.00 | 13.06 | 12.50 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 117 |
| 6 (150) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 060C6 | 14.23 | 14.19 | 14.05 | 14.14 | 14.17 | | 14.00 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 178 |
| 6 (150) EN1092-1 - PN16, SO / RF | 8705 _ _ _ 060CE | 11.81 | 11.75 | 11.61 | 11.71 | 11.73 | 11.81 | 11.22 | 9.98 | 7.30 | 7.35 | 8.35 | 1.70 | 67 |
| 6 (150) EN1092-1 - PN25, SO / RF | 8705 _ _ _ 060CF | 11.81 | 11.80 | 11.66 | 11.75 | 11.78 | 11.86 | 11.81 | 9.98 | 7.30 | 7.35 | 8.58 | 1.70 | 83 |
| 6 (150) EN1092-1 - PN40, SO / RF | 8705 _ _ _ 060CH | 13.06 | 13.02 | 12.88 | 12.97 | 13.00 | 13.06 | 11.81 | 9.98 | 7.30 | 7.35 | 8.58 | 1.70 | 95 |
| 6 (150) AS2129 TABLE D, SO / RF | 8705 _ _ _ 060CK | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.31 | 1.70 | 52 |
| 6 (150) AS2129 TABLE E, SO / RF | 8705 _ _ _ 060CL | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.15 | 1.70 | 57 |
| 6 (150) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 060CP | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.35 | 1.70 | 64 |
| 6 (150) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 060CR | 11.81 | | 11.61 | 11.71 | 11.73 | | 12.01 | 9.98 | 7.30 | 7.35 | 9.06 | 1.70 | 82 |
| 6 (150) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 060CT | 14.23 | | 14.05 | 14.14 | 14.17 | | 13.98 | 9.98 | 7.30 | 7.35 | 9.45 | 1.70 | 161 |
| 6 (150) AS4087 PN16, SO / RF | 8705 _ _ _ 060CU | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.31 | 1.70 | 46 |
| 6 (150) AS4087 PN21, SO / RF | 8705 _ _ _ 060CW | 11.81 | | 11.61 | 11.71 | 11.73 | | 12.01 | 9.98 | 7.30 | 7.35 | 9.13 | 1.70 | 98 |
| 6 (150) AS4087 PN35, SO / RF | 8705 _ _ _ 060CY | 11.81 | | 11.61 | 11.71 | 11.73 | | 12.01 | 9.98 | 7.30 | 7.35 | 9.13 | 1.70 | 186 |

Table 105: 8705-M Flanged Sensor 8-in. to 12-in. slip-on flanges—low pressure (P ≤ Class 300)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|--------------------------------------|---|----------------|--------------|------------------|-----------------|--------------|-------------|------------------|----------------|------------------|---------|-------------------------|--------------------------|-------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 8 (200) ASME - 150 , SO / RF | 8705 _ _ _ 080C1 | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 13.50 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 105 |
| 8 (200) ASME - 300 , SO / RF | 8705 _ _ _ 080C3 | 15.60 | 15.54 | 15.42 | 15.51 | 15.54 | 15.60 | 15.00 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 183 |
| 8 (200) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 080C6 | 16.72 | 16.66 | 16.54 | 16.63 | 16.66 | | 16.50 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 272 |
| 8 (200) DIN - PN10, SO / RF | 8705 _ _ _ 080CD | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 13.39 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 97 |
| 8 (200) DIN - PN16, SO / RF | 8705 _ _ _ 080CE | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 13.39 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 96 |
| 8 (200) DIN - PN25, SO / RF | 8705 _ _ _ 080CF | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 14.17 | 11.92 | 8.27 | 8.32 | 10.94 | 1.70 | 120 |
| 8 (200) DIN - PN40, SO / RF | 8705 _ _ _ 080CH | 15.60 | | 15.54 | 15.51 | 15.54 | 15.60 | 14.76 | 11.92 | 8.27 | 8.32 | 11.22 | 1.70 | 158 |
| 8 (200) AS2129 TABLE D, SO / RF | 8705 _ _ _ 080CK | 13.78 | | 13.53 | 13.63 | 13.65 | | 13.19 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 77 |
| 8 (200) AS2129 TABLE E, SO / RF | 8705 _ _ _ 080CL | 13.78 | | 13.53 | 13.63 | 13.65 | | 13.19 | 11.92 | 8.27 | 8.32 | 10.39 | 1.70 | 86 |
| 8 (200) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 080CP | 13.90 | | 13.53 | 13.63 | 13.65 | | 12.99 | 11.92 | 8.27 | 8.32 | 10.32 | 1.70 | 81 |
| 8 (200) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 080CR | 15.60 | | 15.42 | 15.51 | 15.54 | | 13.78 | 11.92 | 8.27 | 8.32 | 10.83 | 1.70 | 134 |
| 8 (200) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 080CT | 16.72 | | 16.54 | 16.63 | 16.66 | | 15.94 | 11.92 | 8.27 | 8.32 | 11.42 | 1.70 | 232 |
| 8 (200) AS4087 PN16, SO / RF | 8705 _ _ _ 080CU | 13.78 | | 13.53 | 13.63 | 13.65 | | 13.19 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 73 |
| 8 (200) AS4087 PN21, SO / RF | 8705 _ _ _ 080CW | 13.78 | | 13.53 | 13.63 | 13.65 | | 14.57 | 11.92 | 8.27 | 8.32 | 11.65 | 1.70 | 136 |
| 8 (200) AS4087 PN35, SO / RF | 8705 _ _ _ 080CY | 15.60 | | 15.42 | 15.51 | 15.54 | | 14.57 | 11.92 | 8.27 | 8.32 | 10.24 | 1.70 | 241 |
| 10 (250) ASME - 150 , SO / RF | 8705 _ _ _ 100C1 | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 16.00 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 152 |
| 10 (250) ASME - 300 , SO / RF | 8705 _ _ _ 100C3 | 17.13 | 17.08 | 16.86 | 16.95 | 16.98 | 17.13 | 17.50 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 267 |
| 10 (250) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 100C6 | 19.54 | 19.56 | 19.34 | 19.43 | 19.46 | | 20.00 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 462 |
| 10 (250) DIN - PN10, SO / RF | 8705 _ _ _ 100CD | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 15.55 | 14.64 | 9.69 | 9.68 | 12.60 | 2.00 | 134 |
| 10 (250) DIN - PN16, SO / RF | 8705 _ _ _ 100CE | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 15.94 | 14.64 | 9.69 | 9.68 | 12.60 | 2.00 | 138 |
| 10 (250) DIN - PN25, SO / RF | 8705 _ _ _ 100CF | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 16.73 | 14.64 | 9.69 | 9.68 | 13.19 | 2.00 | 174 |
| 10 (250) DIN - PN40, SO / RF | 8705 _ _ _ 100CH | 17.13 | | 16.86 | 16.95 | 16.98 | 17.13 | 17.72 | 14.64 | 9.69 | 9.68 | 13.58 | 2.00 | 244 |
| 10 (250) AS2129 TABLE D, SO / RF | 8705 _ _ _ 100CK | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.94 | 14.64 | 9.69 | 9.68 | 12.91 | 2.00 | 122 |
| 10 (250) AS2129 TABLE E, SO / RF | 8705 _ _ _ 100CL | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.94 | 14.64 | 9.69 | 9.68 | 12.91 | 2.00 | 137 |
| 10 (250) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 100CP | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.75 | 14.64 | 9.69 | 9.68 | 12.76 | 1.70 | 129 |
| 10 (250) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 100CR | 17.13 | | 16.86 | 16.95 | 16.98 | | 16.93 | 14.64 | 9.69 | 9.68 | 13.58 | 1.70 | 218 |
| 10 (250) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 100CT | 19.54 | | 19.34 | 19.43 | | | 18.70 | 14.64 | 9.69 | 9.68 | 13.98 | 1.70 | 382 |
| 10 (250) AS4087 PN16, SO / RF | 8705 _ _ _ 100CU | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.94 | 14.64 | 9.69 | 9.68 | 12.91 | 2.00 | 96 |
| 10 (250) AS4087 PN21, SO / RF | 8705 _ _ _ 100CW | 15.00 | | 14.63 | 14.73 | 14.75 | | 16.93 | 14.64 | 9.69 | 9.68 | 13.74 | 2.00 | 176 |
| 10 (250) AS4087 PN35, SO / RF | 8705 _ _ _ 100CY | 17.13 | | 16.86 | 16.95 | 16.98 | | 16.93 | 14.64 | 9.69 | 9.68 | 12.24 | 2.00 | 299 |
| 12 (300) ASME - 150 , SO / RF | 8705 _ _ _ 120C1 | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 19.00 | 16.80 | 10.77 | 10.76 | 15.00 | 2.00 | 231 |
| 12 (300) ASME - 300 , SO / RF | 8705 _ _ _ 120C3 | 20.14 | 20.02 | 19.80 | 19.89 | 19.92 | 20.14 | 20.50 | 16.80 | 10.77 | 10.76 | 15.00 | 2.00 | 387 |
| 12 (300) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 120C6 | 22.08 | 22.10 | 21.88 | 21.98 | 22.00 | | 22.00 | 16.80 | 10.77 | 10.76 | 15.00 | 2.00 | 623 |
| 12 (300) DIN - PN10, SO / RF | 8705 _ _ _ 120CD | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 17.52 | 16.80 | 10.77 | 10.76 | 14.57 | 2.00 | 178 |
| 12 (300) DIN - PN16, SO / RF | 8705 _ _ _ 120CE | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 18.11 | 16.80 | 10.77 | 10.76 | 14.88 | 2.00 | 192 |
| 12 (300) DIN - PN25, SO / RF | 8705 _ _ _ 120CF | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 19.09 | 16.80 | 10.77 | 10.76 | 15.55 | 2.00 | 242 |
| 12 (300) DIN - PN40, SO / RF | 8705 _ _ _ 120CH | 20.14 | | 19.80 | 19.89 | 19.92 | 20.14 | 20.28 | 16.80 | 10.77 | 10.76 | 16.14 | 2.00 | 351 |
| 12 (300) AS2129 TABLE D, SO / RF | 8705 _ _ _ 120CK | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.91 | 16.80 | 10.77 | 10.76 | 14.88 | 2.00 | 172 |
| 12 (300) AS2129 TABLE E, SO / RF | 8705 _ _ _ 120CL | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.91 | 16.80 | 10.77 | 10.76 | 14.72 | 2.00 | 185 |
| 12 (300) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 120CP | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.52 | 16.80 | 10.77 | 10.76 | 14.49 | 2.00 | 166 |
| 12 (300) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 120CR | 20.14 | | 19.80 | 19.89 | 19.92 | | 18.90 | 16.80 | 10.77 | 10.76 | 15.55 | 2.00 | 285 |
| 12 (300) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 120CT | 22.08 | | 21.88 | 21.98 | 21.78 | | 21.26 | 16.80 | 10.77 | 10.76 | 16.14 | 3.13 | 546 |
| 12 (300) AS4087 PN16, SO / RF | 8705 _ _ _ 120CU | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.91 | 16.80 | 10.77 | 10.76 | 14.88 | 2.00 | 138 |
| 12 (300) AS4087 PN21, SO / RF | 8705 _ _ _ 120CW | 18.01 | | 17.68 | 17.78 | 17.80 | | 19.29 | 16.80 | 10.77 | 10.76 | 15.98 | 2.00 | 225 |
| 12 (300) AS4087 PN35, SO / RF | 8705 _ _ _ 120CY | 20.14 | | 19.80 | 19.89 | 19.92 | | 19.29 | 16.80 | 10.77 | 10.76 | 14.25 | 2.00 | 370 |

Table 106: 8705-M Flanged sensor 14-in. to 20-in. slip-on flanges—low pressure (P ≤ Class 300)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|-------------------------------------|---|-----------------|-----------------|---------------------|--------------------|-----------------|----------------|---------------------|-------------------|---------------------|---------|-------------------------------|--------------------------------|-------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LIMATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 14 (350) ASME - 150 , SO / RF | 8705 _ _ _ 140C1 | 20.91 | 20.93 | 20.71 | 20.80 | 20.83 | 21.00 | 21.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 300 |
| 14 (350) ASME - 300 , SO / RF | 8705 _ _ _ 140C3 | 23.16 | 23.18 | 22.96 | 23.05 | 23.08 | | 23.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 517 |
| 14 (350) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 140C6 | 25.74 | | | | | | 23.75 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 773 |
| 14 (350) DIN - PN10, SO / RF | 8705 _ _ _ 140CD | 20.91 | 20.93 | 20.71 | 20.80 | 20.83 | 21.00 | 19.88 | 18.92 | 11.83 | 11.82 | 16.93 | 2.00 | 252 |
| 14 (350) DIN - PN16, SO / RF | 8705 _ _ _ 140CE | 20.91 | | 20.71 | 20.80 | 20.83 | 21.00 | 20.47 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 276 |
| 14 (350) DIN - PN25, SO / RF | 8705 _ _ _ 140CF | 20.91 | | 20.71 | 20.80 | 20.83 | | 21.85 | 18.92 | 11.83 | 11.82 | 17.72 | 2.00 | 359 |
| 14 (350) DIN - PN40, SO / RF | 8705 _ _ _ 140CH | 23.16 | | 22.96 | 23.05 | 23.08 | | 22.83 | 18.92 | 11.83 | 11.82 | 18.31 | 2.00 | 480 |
| 14 (350) AS2129 TABLE D, SO / RF | 8705 _ _ _ 140CK | 20.91 | | 20.71 | 20.80 | 20.83 | | 20.67 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 230 |
| 14 (350) AS2129 TABLE E, SO / RF | 8705 _ _ _ 140CL | 20.91 | | 20.71 | 20.80 | 20.83 | | 20.67 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 257 |
| 14 (350) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 140CP | 20.91 | | 20.71 | 20.80 | 20.83 | | 19.29 | 18.92 | 11.83 | 11.82 | 16.26 | 2.00 | 221 |
| 14 (350) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 140CR | 23.16 | | 22.96 | 23.05 | 23.08 | | 21.26 | 18.92 | 11.83 | 11.82 | 17.32 | 2.00 | 385 |
| 14 (350) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 140CT | 25.74 | | 25.54 | 25.64 | | | 23.03 | 18.92 | 11.83 | 11.82 | 17.91 | 2.00 | 702 |
| 14 (350) AS4087 PN16, SO / RF | 8705 _ _ _ 140CU | 20.91 | | 20.71 | 20.80 | 20.83 | | 20.67 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 219 |
| 14 (350) AS4087 PN21, SO / RF | 8705 _ _ _ 140CW | 20.91 | | 20.71 | 20.80 | 20.83 | | 21.65 | 18.92 | 11.83 | 11.82 | 18.07 | 2.00 | 294 |
| 14 (350) AS4087 PN35, SO / RF | 8705 _ _ _ 140CY | 23.16 | | 22.96 | 23.05 | 23.08 | | 21.65 | 18.92 | 11.83 | 11.82 | 16.50 | 2.00 | 497 |
| 16 (400) ASME - 150 , SO / RF | 8705 _ _ _ 160C1 | 23.88 | 23.90 | 23.68 | 23.77 | 23.80 | | 23.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 388 |
| 16 (400) ASME - 300 , SO / RF | 8705 _ _ _ 160C3 | 26.13 | | 25.93 | 26.02 | 26.05 | | 25.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 705 |
| 16 (400) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 160C6 | 29.24 | | | | | | 27.00 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 1102 |
| 16 (400) DIN - PN10, SO / RF | 8705 _ _ _ 160CD | 23.88 | 23.90 | 23.68 | 23.77 | 23.80 | | 22.24 | 20.94 | 12.84 | 12.83 | 18.98 | 3.13 | 318 |
| 16 (400) DIN - PN16, SO / RF | 8705 _ _ _ 160CE | 23.88 | 23.90 | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.28 | 3.13 | 354 |
| 16 (400) DIN - PN25, SO / RF | 8705 _ _ _ 160CF | 26.13 | | 25.93 | 26.02 | 26.05 | | 24.41 | 20.94 | 12.84 | 12.83 | 19.88 | 3.13 | 581 |
| 16 (400) DIN - PN40, SO / RF | 8705 _ _ _ 160CH | 26.13 | | 25.93 | 26.02 | 26.05 | | 25.98 | 20.94 | 12.84 | 12.83 | 21.06 | 3.13 | 696 |
| 16 (400) AS2129 TABLE D, SO / RF | 8705 _ _ _ 160CK | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.25 | 3.13 | 283 |
| 16 (400) AS2129 TABLE E, SO / RF | 8705 _ _ _ 160CL | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.25 | 3.13 | 327 |
| 16 (400) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 160CP | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.05 | 20.94 | 12.84 | 12.83 | 18.70 | 2.00 | 296 |
| 16 (400) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 160CR | 26.13 | | 25.93 | 26.02 | 26.05 | | 23.82 | 20.94 | 12.84 | 12.83 | 19.49 | 2.00 | 561 |
| 16 (400) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 160CT | 29.24 | | 29.04 | 29.14 | | | 25.39 | 20.94 | 12.84 | 12.83 | 20.28 | 2.00 | 961 |
| 16 (400) AS4087 PN16, SO / RF | 8705 _ _ _ 160CU | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.25 | 3.13 | 262 |
| 16 (400) AS4087 PN21, SO / RF | 8705 _ _ _ 160CW | 23.88 | | 23.68 | 23.77 | 23.80 | | 24.02 | 20.94 | 12.84 | 12.83 | 20.31 | 3.13 | 387 |
| 16 (400) AS4087 PN35, SO / RF | 8705 _ _ _ 160CY | 26.13 | | 25.93 | 26.02 | 26.05 | | 24.02 | 20.94 | 12.84 | 12.83 | 19.02 | 3.13 | 631 |
| 18 (450) ASME - 150 , SO / RF | 8705 _ _ _ 180C1 | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.00 | 23.46 | 14.1 | 14.09 | 21 | 3.13 | 451 |
| 18 (450) ASME - 300 , SO / RF | 8705 _ _ _ 180C3 | 29.97 | | 29.77 | 29.86 | 29.89 | | 28.00 | 23.46 | 14.1 | 14.09 | 21 | 3.13 | 907 |
| 18 (450) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 180C6 | 32.72 | | | | | | 29.25 | 23.46 | 14.1 | 14.09 | 21 | 3.13 | 1407 |
| 18 (450) DIN - PN10, SO / RF | 8705 _ _ _ 180CD | 26.85 | | 26.65 | 26.74 | 26.77 | | 24.21 | 23.46 | 14.1 | 14.09 | 20.94 | 3.13 | 381 |
| 18 (450) DIN - PN16, SO / RF | 8705 _ _ _ 180CE | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 21.65 | 3.13 | 434 |
| 18 (450) DIN - PN25, SO / RF | 8705 _ _ _ 180CF | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.38 | 23.46 | 14.1 | 14.09 | 21.85 | 3.13 | 744 |
| 18 (450) DIN - PN40, SO / RF | 8705 _ _ _ 180CH | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.97 | 23.46 | 14.1 | 14.09 | 22.05 | 3.13 | 817 |
| 18 (450) AS2129 TABLE D, SO / RF | 8705 _ _ _ 180CK | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 20.94 | 3.13 | 356 |
| 18 (450) AS2129 TABLE E, SO / RF | 8705 _ _ _ 180CL | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 21.73 | 3.13 | 414 |
| 18 (450) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 180CP | 26.85 | | 26.65 | 26.74 | 26.77 | | 24.41 | 23.46 | 14.1 | 14.09 | 20.87 | 3.13 | 373 |
| 18 (450) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 180CR | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.57 | 23.46 | 14.1 | 14.09 | 22.05 | 3.13 | 751 |
| 18 (450) AS4087 PN16, SO / RF | 8705 _ _ _ 180CU | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 21.73 | 3.13 | 323 |
| 18 (450) AS4087 PN21, SO / RF | 8705 _ _ _ 180CW | 26.85 | | 26.65 | 26.74 | 26.77 | | 26.57 | 23.46 | 14.1 | 14.09 | 22.48 | 3.13 | 453 |
| 18 (450) AS4087 PN35, SO / RF | 8705 _ _ _ 180CY | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.57 | 23.46 | 14.1 | 14.09 | 20.98 | 3.13 | 917 |
| 20 (500) ASME - 150 , SO / RF | 8705 _ _ _ 200C1 | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.50 | 25.48 | 15.11 | 15.1 | 23 | 3.13 | 569 |
| 20 (500) ASME - 300 , SO / RF | 8705 _ _ _ 200C3 | 33.04 | | 32.84 | 32.93 | 32.96 | | 30.50 | 25.48 | 15.11 | 15.1 | 23 | 3.13 | 1127 |
| 20 (500) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 200C6 | 36.85 | | | | | | 32.00 | 25.48 | 15.11 | 15.1 | 23 | 3.13 | 1824 |
| 20 (500) DIN - PN10, SO / RF | 8705 _ _ _ 200CD | 29.78 | | 29.58 | 29.67 | 29.70 | | 26.38 | 25.48 | 15.11 | 15.1 | 23.03 | 3.13 | 473 |
| 20 (500) DIN - PN16, SO / RF | 8705 _ _ _ 200CE | 29.78 | | 29.58 | 29.67 | 29.70 | | 28.15 | 25.48 | 15.11 | 15.1 | 24.02 | 3.13 | 567 |
| 20 (500) DIN - PN25, SO / RF | 8705 _ _ _ 200CF | 33.04 | | 32.84 | 32.93 | 32.96 | | 28.74 | 25.48 | 15.11 | 15.1 | 24.21 | 3.13 | 932 |
| 20 (500) DIN - PN40, SO / RF | 8705 _ _ _ 200CH | 33.04 | | 32.84 | 32.93 | 32.96 | | 29.72 | 25.48 | 15.11 | 15.1 | 24.21 | 3.13 | 1013 |
| 20 (500) AS2129 TABLE D, SO / RF | 8705 _ _ _ 200CK | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.76 | 25.48 | 15.11 | 15.1 | 23.98 | 3.13 | 471 |
| 20 (500) AS2129 TABLE E, SO / RF | 8705 _ _ _ 200CL | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.76 | 25.48 | 15.11 | 15.1 | 23.98 | 3.13 | 528 |
| 20 (500) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 200CP | 29.78 | | 29.58 | 29.67 | 29.70 | | 26.57 | 25.48 | 15.11 | 15.1 | 23.03 | 3.13 | 453 |
| 20 (500) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 200CR | 33.04 | | 32.84 | 32.93 | 32.96 | | 28.74 | 25.48 | 15.11 | 15.1 | 24.21 | 3.13 | 919 |
| 20 (500) AS4087 PN16, SO / RF | 8705 _ _ _ 200CU | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.76 | 25.48 | 15.11 | 15.1 | 23.98 | 3.13 | 453 |
| 20 (500) AS4087 PN21, SO / RF | 8705 _ _ _ 200CW | 29.78 | | 29.58 | 29.67 | 29.70 | | 28.94 | 25.48 | 15.11 | 15.1 | 24.96 | 3.13 | 627 |
| 20 (500) AS4087 PN35, SO / RF | 8705 _ _ _ 200CY | 33.04 | | 32.84 | 32.93 | 32.96 | | 28.94 | 25.48 | 15.11 | 15.1 | 23.5 | 3.13 | 1074 |

Table 107: 8705-M Flanged sensor 24-in. to 36-in. slip-on flanges—low pressure (P ≤ Class 300)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL 1 ₀ TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|-------------------------------------|---|--------------------|--------------------|------------------------|-----------------------|-----------------|----------------|---------------------|-------------------|---------------------------------|---------|-------------------------------|--------------------------------|----------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 24 (600) ASME - 150 , SO / RF | 8705 _ _ _ 240C1 | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 828 |
| 24 (600) ASME - 300 , SO / RF | 8705 _ _ _ 240C3 | 39.38 | | 39.18 | 39.27 | 39.30 | | 36.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 1729 |
| 24 (600) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 240C6 | 41.35 | | | | | | 37.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 2690 |
| 24 (600) DIN - PN10, SO / RF | 8705 _ _ _ 240CD | 35.75 | | 35.55 | 35.64 | 35.67 | | 30.71 | 30.03 | 17.39 | 17.38 | 26.97 | 3.13 | 661 |
| 24 (600) DIN - PN16, SO / RF | 8705 _ _ _ 240CE | 35.75 | | 35.55 | 35.64 | 35.67 | | 33.07 | 30.03 | 17.39 | 17.38 | 28.54 | 3.13 | 832 |
| 24 (600) DIN - PN25, SO / RF | 8705 _ _ _ 240CF | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.27 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 1352 |
| 24 (600) DIN - PN40, SO / RF | 8705 _ _ _ 240CH | 39.38 | | 39.18 | 39.27 | 39.30 | | 35.04 | 30.03 | 17.39 | 17.38 | 28.94 | 3.13 | 1628 |
| 24 (600) AS2129 TABLE D, SO / RF | 8705 _ _ _ 240CK | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.48 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 692 |
| 24 (600) AS2129 TABLE E, SO / RF | 8705 _ _ _ 240CL | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.48 | 30.03 | 17.39 | 17.38 | 28.23 | 3.13 | 814 |
| 24 (600) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 240CP | 35.75 | | 35.55 | 35.64 | 35.67 | | 31.30 | 30.03 | 17.39 | 17.38 | 27.17 | 3.13 | 659 |
| 24 (600) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 240CR | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.27 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 1353 |
| 24 (600) AS4087 PN16, SO / RF | 8705 _ _ _ 240CU | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.48 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 709 |
| 24 (600) AS4087 PN21, SO / RF | 8705 _ _ _ 240CW | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.46 | 30.03 | 17.39 | 17.38 | 29.09 | 3.13 | 1293 |
| 24 (600) AS4087 PN35, SO / RF | 8705 _ _ _ 240CY | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.46 | 30.03 | 17.39 | 17.38 | 27.52 | 3.13 | 1528 |
| 30 (750) AWWA CLASS D, SO / FF | 8705 _ _ _ 300C1 | 37.00 | | 36.80 | 36.89 | 37.04 | | 38.75 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 897 |
| 30 (750) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 300C2 | 41.56 | | 41.36 | 41.45 | 41.48 | | 38.75 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 1561 |
| 30 (750) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 300C3 | 47.25 | | 47.05 | 47.14 | 47.17 | | 43.00 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 2950 |
| 30 (750) AS2129 TABLE D, SO / RF | 8705 _ _ _ 300CK | 37.00 | | 36.80 | 36.89 | 37.04 | | 39.17 | 35.50 | 20.13 | 20.11 | 34.96 | 3.13 | 1036 |
| 30 (750) AS2129 TABLE E, SO / RF | 8705 _ _ _ 300CL | 41.56 | | 41.36 | 41.45 | 41.48 | | 39.17 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 1275 |
| 30 (750) AS4087 PN16, SO / RF | 8705 _ _ _ 300CU | 37.00 | | 36.80 | 36.89 | 36.92 | | 39.17 | 35.50 | 20.13 | 20.11 | 34.96 | 3.13 | 1083 |
| 30 (750) AS4087 PN21, SO / RF | 8705 _ _ _ 300CW | 41.56 | | 41.36 | 41.45 | 41.48 | | 39.96 | 35.50 | 20.13 | 20.11 | 3.00 | 3.13 | 1071 |
| 30 (750) AS4087 PN35, SO / RF | 8705 _ _ _ 300CY | 47.25 | | 47.05 | 47.14 | 47.17 | | 39.96 | 35.50 | 20.13 | 20.11 | 35.35 | 3.13 | 2452 |
| 36 (900) AWWA CLASS D, SO / FF | 8705 _ _ _ 360C1 | 40.63 | | 40.43 | 40.52 | 40.67 | | 46.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.13 | 1267 |
| 36 (900) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 360C2 | 47.25 | | 47.05 | 47.14 | 47.17 | | 46.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.13 | 2550 |
| 36 (900) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 360C3 | 53.17 | | 52.97 | 53.06 | 53.09 | | 50.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.38 | 4584 |
| 36 (900) AS2129 TABLE D, SO / RF | 8705 _ _ _ 360CK | 40.63 | | 40.43 | 40.52 | 40.67 | | 46.26 | 43.37 | 24.00 | 24.05 | 41.34 | 3.13 | 1515 |
| 36 (900) AS2129 TABLE E, SO / RF | 8705 _ _ _ 360CL | 47.25 | | 47.05 | 47.14 | 47.17 | | 46.26 | 43.37 | 24.00 | 24.05 | 41.34 | 3.13 | 2105 |
| 36 (900) AS4087 PN16, SO / RF | 8705 _ _ _ 360CU | 40.63 | | 40.43 | 40.52 | 40.55 | | 46.26 | 43.37 | 24.00 | 24.05 | 41.34 | 3.13 | 1559 |
| 36 (900) AS4087 PN21, SO / RF | 8705 _ _ _ 360CW | 47.25 | | 47.05 | 47.14 | 47.17 | | 46.65 | 43.37 | 24.00 | 24.05 | 41.73 | 3.13 | 2060 |
| 36 (900) AS4087 PN35, SO / RF | 8705 _ _ _ 360CY | 53.17 | | 52.97 | 53.06 | 53.09 | | 46.65 | 43.37 | 24.00 | 24.05 | 40.55 | 3.38 | 3700 |

Table 108: 8705-M Flanged sensor DN 80mm to 150mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL Fo TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|------------------------------------|---|-----------------|-----------------|---------------------|--------------------|-----------------|----------------|---------|---------------------|-------------------|---------------------|-----|-------------------------------|--------------------------------|-----------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | STYLE A | | | STYLE B | | | | |
| 3 (80) ASME - 150 , SO / RF | 8705 _ _ _ 030C1 | 200 | 200 | 197 | 199 | 200 | 199 | 190 | 183 | 148 | 152 | 127 | 43 | 15 | |
| 3 (80) ASME - 300 , SO / RF | 8705 _ _ _ 030C3 | 219 | 219 | 216 | 219 | 219 | 218 | 209 | 183 | 148 | 152 | 127 | 43 | 19 | |
| 3 (80) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 030C6 | 315 | 315 | 312 | 315 | 315 | | 209 | 183 | 148 | 152 | 127 | 43 | 24 | |
| 3 (80) DIN - PN40, SO / RF | 8705 _ _ _ 030CH | 200 | 200 | 197 | 199 | 200 | 200 | 200 | 183 | 148 | 152 | 138 | 43 | 17 | |
| 3 (80) AS2129 TABLE D, SO / RF | 8705 _ _ _ 030CK | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 122 | 43 | 11 | |
| 3 (80) AS2129 TABLE E, SO / RF | 8705 _ _ _ 030CL | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 122 | 43 | 11 | |
| 3 (80) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 030CP | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 126 | 43 | 13 | |
| 3 (80) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 030CR | 200 | | 197 | 199 | 200 | | 200 | 183 | 148 | 152 | 132 | 43 | 16 | |
| 3 (80) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 030CT | 315 | | 312 | 315 | 315 | | 210 | 183 | 148 | 152 | 140 | 43 | 24 | |
| 3 (80) AS4087 PN16, SO / RF | 8705 _ _ _ 030CU | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 122 | 43 | 9 | |
| 3 (80) AS4087 PN21, SO / RF | 8705 _ _ _ 030CW | 200 | | 197 | 199 | 200 | | 205 | 183 | 148 | 152 | 141 | 43 | 25 | |
| 3 (80) AS4087 PN35, SO / RF | 8705 _ _ _ 030CY | 200 | | 197 | 199 | 200 | | 205 | 183 | 148 | 152 | 141 | 43 | 49 | |
| 4 (100) ASME - 150 , SO / RF | 8705 _ _ _ 040C1 | 250 | 250 | 246 | 249 | 250 | 250 | 229 | 201 | 157 | 160 | 157 | 43 | 20 | |
| 4 (100) ASME - 300 , SO / RF | 8705 _ _ _ 040C3 | 276 | 276 | 273 | 275 | 276 | 276 | 254 | 201 | 157 | 160 | 157 | 43 | 29 | |
| 4 (100) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 040C6 | 326 | 326 | 323 | 325 | 326 | | 273 | 201 | 157 | 160 | 157 | 43 | 42 | |
| 4 (100) DIN - PN16, SO / RF | 8705 _ _ _ 040CE | 250 | 249 | 246 | 249 | 249 | 249 | 220 | 201 | 157 | 160 | 158 | 43 | 19 | |
| 4 (100) DIN - PN40, SO / RF | 8705 _ _ _ 040CH | 250 | 249 | 246 | 249 | 249 | 249 | 235 | 201 | 157 | 160 | 162 | 43 | 22 | |
| 4 (100) AS2129 TABLE D, SO / RF | 8705 _ _ _ 040CK | 250 | 250 | 246 | 249 | 250 | | 215 | 201 | 157 | 160 | 154 | 43 | 14 | |
| 4 (100) AS2129 TABLE E, SO / RF | 8705 _ _ _ 040CL | 250 | 250 | 246 | 249 | 250 | | 215 | 201 | 157 | 160 | 154 | 43 | 15 | |
| 4 (100) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 040CP | 250 | | 246 | 249 | 250 | | 210 | 201 | 157 | 160 | 151 | 43 | 16 | |
| 4 (100) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 040CR | 250 | | 246 | 249 | 250 | | 225 | 201 | 157 | 160 | 160 | 43 | 20 | |
| 4 (100) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 040CT | 326 | | 323 | 325 | 326 | | 250 | 201 | 157 | 160 | 165 | 43 | 34 | |
| 4 (100) AS4087 PN16, SO / RF | 8705 _ _ _ 040CU | 250 | | 246 | 249 | 250 | | 215 | 201 | 157 | 160 | 154 | 43 | 13 | |
| 4 (100) AS4087 PN21, SO / RF | 8705 _ _ _ 040CW | 250 | | 246 | 249 | 250 | | 230 | 201 | 157 | 160 | 167 | 43 | 31 | |
| 4 (100) AS4087 PN35, SO / RF | 8705 _ _ _ 040CY | 250 | | 246 | 249 | 250 | | 230 | 201 | 157 | 160 | 167 | 43 | 54 | |
| 5 (125) ASME - 150 , SO / RF | 8705 _ _ _ 050C1 | 249 | | 247 | | | | 254 | 244 | 178 | 182 | 186 | 43 | 24 | |
| 5 (125) ASME - 300 , SO / RF | 8705 _ _ _ 050C3 | 278 | | 276 | | | | 279 | 244 | 178 | 182 | 186 | 43 | 40 | |
| 5 (125) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 050C6 | 327 | | 325 | | | | 330 | 244 | 178 | 182 | 186 | 43 | 71 | |
| 5 (125) DIN - PN16, SO / RF | 8705 _ _ _ 050CE | 249 | | 241 | | | | 250 | 244 | 178 | 182 | 188 | 43 | 25 | |
| 5 (125) DIN - PN40, SO / RF | 8705 _ _ _ 050CH | 249 | | 247 | | | | 270 | 244 | 178 | 182 | 188 | 43 | 29 | |
| 5 (125) AS2129 TABLE D, SO / RF | 8705 _ _ _ 050CK | 249 | | 247 | | | | 255 | 244 | 178 | 182 | 186 | 43 | 20 | |
| 5 (125) AS2129 TABLE E, SO / RF | 8705 _ _ _ 050CL | 249 | | 247 | | | | 255 | 244 | 178 | 182 | 186 | 43 | 20 | |
| 5 (125) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 050CP | 249 | | 247 | | | | 250 | 244 | 178 | 182 | 182 | 43 | 22 | |
| 5 (125) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 050CR | 249 | | 247 | | | | 270 | 244 | 178 | 182 | 195 | 43 | 29 | |
| 5 (125) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 050CT | 278 | | 276 | | | | 300 | 244 | 178 | 182 | 200 | 43 | 51 | |
| 6 (150) ASME - 150 , SO / RF | 8705 _ _ _ 060C1 | 300 | 298 | 295 | 297 | 298 | 300 | 279 | 253 | 185 | 187 | 216 | 43 | 31 | |
| 6 (150) ASME - 300 , SO / RF | 8705 _ _ _ 060C3 | 332 | 331 | 327 | 330 | 330 | 332 | 318 | 253 | 185 | 187 | 216 | 43 | 53 | |
| 6 (150) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 060C6 | 361 | 360 | 357 | 359 | 360 | | 356 | 253 | 185 | 187 | 216 | 43 | 81 | |
| 6 (150) DIN - PN16, SO / RF | 8705 _ _ _ 060CE | 300 | 298 | 295 | 297 | 298 | 300 | 285 | 253 | 185 | 187 | 212 | 43 | 31 | |
| 6 (150) DIN - PN25, SO / RF | 8705 _ _ _ 060CF | 300 | 300 | 296 | 299 | 299 | 301 | 300 | 253 | 185 | 187 | 218 | 43 | 38 | |
| 6 (150) DIN - PN40, SO / RF | 8705 _ _ _ 060CH | 332 | 331 | 327 | 330 | 330 | 332 | 300 | 253 | 185 | 187 | 218 | 43 | 43 | |
| 6 (150) AS2129 TABLE D, SO / RF | 8705 _ _ _ 060CK | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 211 | 43 | 24 | |
| 6 (150) AS2129 TABLE E, SO / RF | 8705 _ _ _ 060CL | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 207 | 43 | 26 | |
| 6 (150) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 060CP | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 212 | 43 | 29 | |
| 6 (150) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 060CR | 300 | | 295 | 297 | 298 | | 305 | 253 | 185 | 187 | 230 | 43 | 37 | |
| 6 (150) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 060CT | 361 | | 357 | 359 | 360 | | 355 | 253 | 185 | 187 | 240 | 43 | 73 | |
| 6 (150) AS4087 PN16, SO / RF | 8705 _ _ _ 060CU | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 211 | 43 | 21 | |
| 6 (150) AS4087 PN21, SO / RF | 8705 _ _ _ 060CW | 300 | | 295 | 297 | 298 | | 305 | 253 | 185 | 187 | 232 | 43 | 45 | |
| 6 (150) AS4087 PN35, SO / RF | 8705 _ _ _ 060CY | 300 | | 295 | 297 | 298 | | 305 | 253 | 185 | 187 | 232 | 43 | 84 | |

Table 109: 8705-M Flanged sensor DN 200mm to 300mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|-------------------------------------|---|----------------|--------------|------------------|-----------------|--------------|-------------|------------------|----------------|------------------|---------|-------------------------|--------------------------|-----------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 8 (200) ASME - 150 , SO / RF | 8705 _ _ _ 080C1 | 350 | 348 | 344 | 346 | 347 | 350 | 342.90 | 303 | 210 | 211 | 270 | 43 | 48 |
| 8 (200) ASME - 300 , SO / RF | 8705 _ _ _ 080C3 | 396 | 395 | 392 | 394 | 395 | 396 | 381.00 | 303 | 210 | 211 | 270 | 43 | 83 |
| 8 (200) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 080C6 | 425 | 423 | 420 | 422 | 423 | | 419.10 | 303 | 210 | 211 | 270 | 43 | 123 |
| 8 (200) DIN - PN10, SO / RF | 8705 _ _ _ 080CD | 350 | 348 | 344 | 346 | 347 | 350 | 340.11 | 303 | 210 | 211 | 268 | 43 | 44 |
| 8 (200) DIN - PN16, SO / RF | 8705 _ _ _ 080CE | 350 | 348 | 344 | 346 | 347 | 350 | 340.11 | 303 | 210 | 211 | 268 | 43 | 43 |
| 8 (200) DIN - PN25, SO / RF | 8705 _ _ _ 080CF | 350 | 348 | 344 | 346 | 347 | 350 | 359.92 | 303 | 210 | 211 | 278 | 43 | 54 |
| 8 (200) DIN - PN40, SO / RF | 8705 _ _ _ 080CH | 396 | 395 | 392 | 394 | 395 | 396 | 374.90 | 303 | 210 | 211 | 285 | 43 | 72 |
| 8 (200) AS2129 TABLE D, SO / RF | 8705 _ _ _ 080CK | 350 | | 344 | 346 | 347 | | 335.03 | 303 | 210 | 211 | 268 | 43 | 35 |
| 8 (200) AS2129 TABLE E, SO / RF | 8705 _ _ _ 080CL | 350 | | 344 | 346 | 347 | | 335.03 | 303 | 210 | 211 | 264 | 43 | 39 |
| 8 (200) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 080CP | 353 | | 344 | 346 | 347 | | 330.00 | 303 | 210 | 211 | 262 | 43 | 37 |
| 8 (200) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 080CR | 396 | | 392 | 394 | 395 | | 350.00 | 303 | 210 | 211 | 275 | 43 | 61 |
| 8 (200) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 080CT | 425 | | 420 | 422 | 423 | | 405.00 | 303 | 210 | 211 | 290 | 43 | 105 |
| 8 (200) AS4087 PN16, SO / RF | 8705 _ _ _ 080CU | 350 | | 344 | 346 | 347 | | 335.00 | 303 | 210 | 211 | 268 | 43 | 33 |
| 8 (200) AS4087 PN21, SO / RF | 8705 _ _ _ 080CW | 350 | | 344 | 346 | 347 | | 370.00 | 303 | 210 | 211 | 296 | 43 | 62 |
| 8 (200) AS4087 PN35, SO / RF | 8705 _ _ _ 080CY | 396 | | 392 | 394 | 395 | | 370.00 | 303 | 210 | 211 | 260 | 43 | 109 |
| 10 (250) ASME - 150 , SO / RF | 8705 _ _ _ 100C1 | 381 | 377 | 372 | 374 | 375 | 381 | 406.40 | 372 | 246 | 246 | 324 | 51 | 69 |
| 10 (250) ASME - 300 , SO / RF | 8705 _ _ _ 100C3 | 435 | 434 | 428 | 431 | 431 | 435 | 444.50 | 372 | 246 | 246 | 324 | 51 | 120.9 |
| 10 (250) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 100C6 | 496 | 497 | 491 | 494 | 494 | | 508.00 | 372 | 246 | 246 | 324 | 51 | 209.6 |
| 10 (250) DIN - PN10, SO / RF | 8705 _ _ _ 100CD | 381 | 377 | 372 | 374 | 375 | 381 | 394.97 | 372 | 246 | 246 | 320 | 51 | 61.0 |
| 10 (250) DIN - PN16, SO / RF | 8705 _ _ _ 100CE | 381 | 377 | 372 | 374 | 375 | 381 | 404.88 | 372 | 246 | 246 | 320 | 51 | 62.7 |
| 10 (250) DIN - PN25, SO / RF | 8705 _ _ _ 100CF | 381 | 377 | 372 | 374 | 375 | 381 | 424.94 | 372 | 246 | 246 | 335 | 51 | 78.9 |
| 10 (250) DIN - PN40, SO / RF | 8705 _ _ _ 100CH | 435 | | 428 | 431 | 431 | 435 | 450.09 | 372 | 246 | 246 | 345 | 51 | 110.7 |
| 10 (250) AS2129 TABLE D, SO / RF | 8705 _ _ _ 100CK | 381 | | 372 | 374 | 375 | | 404.88 | 372 | 246 | 246 | 328 | 51 | 55.5 |
| 10 (250) AS2129 TABLE E, SO / RF | 8705 _ _ _ 100CL | 381 | | 372 | 374 | 375 | | 404.88 | 372 | 246 | 246 | 328 | 51 | 62.0 |
| 10 (250) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 100CP | 381 | | 372 | 374 | 375 | | 400.00 | 372 | 246 | 246 | 324 | 43 | 58.5 |
| 10 (250) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 100CR | 435 | | 428 | 431 | 431 | | 430.00 | 372 | 246 | 246 | 345 | 43 | 98.7 |
| 10 (250) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 100CT | 496 | | 491 | 494 | | | 475.00 | 372 | 246 | 246 | 355 | 43 | 173.5 |
| 10 (250) AS4087 PN16, SO / RF | 8705 _ _ _ 100CU | 381 | | 372 | 374 | 375 | | 405.00 | 372 | 246 | 246 | 328 | 51 | 43.7 |
| 10 (250) AS4087 PN21, SO / RF | 8705 _ _ _ 100CW | 381 | | 372 | 374 | 375 | | 430.00 | 372 | 246 | 246 | 349 | 51 | 80.0 |
| 10 (250) AS4087 PN35, SO / RF | 8705 _ _ _ 100CY | 435 | | 428 | 431 | 431 | | 430.00 | 372 | 246 | 246 | 311 | 51 | 135.7 |
| 12 (300) ASME - 150 , SO / RF | 8705 _ _ _ 120C1 | 458 | 455 | 449 | 452 | 452 | 457 | 482.60 | 427 | 274 | 273 | 381 | 51 | 104.9 |
| 12 (300) ASME - 300 , SO / RF | 8705 _ _ _ 120C3 | 512 | 508 | 503 | 505 | 506 | 512 | 520.70 | 427 | 274 | 273 | 381 | 51 | 175.3 |
| 12 (300) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 120C6 | 561 | 561 | 556 | 558 | 559 | | 558.80 | 427 | 274 | 273 | 381 | 51 | 282.7 |
| 12 (300) DIN - PN10, SO / RF | 8705 _ _ _ 120CD | 458 | 455 | 449 | 452 | 452 | 457 | 445.01 | 427 | 274 | 273 | 370 | 51 | 80.9 |
| 12 (300) DIN - PN16, SO / RF | 8705 _ _ _ 120CE | 458 | 455 | 449 | 452 | 452 | 457 | 459.99 | 427 | 274 | 273 | 378 | 51 | 87.1 |
| 12 (300) DIN - PN25, SO / RF | 8705 _ _ _ 120CF | 458 | 455 | 449 | 452 | 452 | 457 | 484.89 | 427 | 274 | 273 | 395 | 51 | 109.8 |
| 12 (300) DIN - PN40, SO / RF | 8705 _ _ _ 120CH | 512 | | 503 | 505 | 506 | 512 | 515.11 | 427 | 274 | 273 | 410 | 51 | 159.4 |
| 12 (300) AS2129 TABLE D, SO / RF | 8705 _ _ _ 120CK | 458 | | 449 | 452 | 452 | | 454.91 | 427 | 274 | 273 | 378 | 51 | 78.0 |
| 12 (300) AS2129 TABLE E, SO / RF | 8705 _ _ _ 120CL | 458 | | 449 | 452 | 452 | | 454.91 | 427 | 274 | 273 | 374 | 51 | 84.0 |
| 12 (300) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 120CP | 458 | | 449 | 452 | 452 | | 445.00 | 427 | 274 | 273 | 368 | 51 | 75.4 |
| 12 (300) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 120CR | 512 | | 503 | 505 | 506 | | 480.00 | 427 | 274 | 273 | 395 | 51 | 129.1 |
| 12 (300) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 120CT | 561 | | 556 | 558 | 553 | | 540.00 | 427 | 274 | 273 | 410 | 80 | 247.6 |
| 12 (300) AS4087 PN16, SO / RF | 8705 _ _ _ 120CU | 458 | | 449 | 452 | 452 | | 455.00 | 427 | 274 | 273 | 378 | 51 | 62.5 |
| 12 (300) AS4087 PN21, SO / RF | 8705 _ _ _ 120CW | 458 | | 449 | 452 | 452 | | 490.00 | 427 | 274 | 273 | 406 | 51 | 102.2 |
| 12 (300) AS4087 PN35, SO / RF | 8705 _ _ _ 120CY | 512 | | 503 | 505 | 506 | | 490.00 | 427 | 274 | 273 | 362 | 51 | 167.8 |

Table 110: 8705-M Flanged sensor DN 350mm to 500mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|--------------------------------------|---|-----------------|-----------------|---------------------|--------------------|-----------------|----------------|---------|---------------------|-------------------|---------------------|-----|-------------------------------|--------------------------------|--------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | STYLE A | | | STYLE B | | | | |
| 14 (350) ASME - 150 , SO / RF | 8705 _ _ _ 140C1 | 531 | 532 | 526 | 528 | 529 | 533 | 533 | 481 | 300 | 300 | 413 | 51 | 136 | |
| 14 (350) ASME - 300 , SO / RF | 8705 _ _ _ 140C3 | 588 | 589 | 583 | 586 | 586 | | 584 | 481 | 300 | 300 | 413 | 51 | 234 | |
| 14 (350) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 140C6 | 654 | | | | | | 603 | 481 | 300 | 300 | 413 | 51 | 351 | |
| 14 (350) DIN - PN10, SO / RF | 8705 _ _ _ 140CD | 531 | 532 | 526 | 528 | 529 | 533 | 505 | 481 | 300 | 300 | 430 | 51 | 114 | |
| 14 (350) DIN - PN16, SO / RF | 8705 _ _ _ 140CE | 531 | | 526 | 528 | 529 | 533 | 520 | 481 | 300 | 300 | 438 | 51 | 125 | |
| 14 (350) DIN - PN25, SO / RF | 8705 _ _ _ 140CF | 531 | | 526 | 528 | 529 | | 555 | 481 | 300 | 300 | 450 | 51 | 163 | |
| 14 (350) DIN - PN40, SO / RF | 8705 _ _ _ 140CH | 588 | | 583 | 586 | 586 | | 580 | 481 | 300 | 300 | 465 | 51 | 218 | |
| 14 (350) AS2129 TABLE D, SO / RF | 8705 _ _ _ 140CK | 531 | | 526 | 528 | 529 | | 525 | 481 | 300 | 300 | 438 | 51 | 104 | |
| 14 (350) AS2129 TABLE E, SO / RF | 8705 _ _ _ 140CL | 531 | | 526 | 528 | 529 | | 525 | 481 | 300 | 300 | 438 | 51 | 116 | |
| 14 (350) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 140CP | 531 | | 526 | 528 | 529 | | 490 | 481 | 300 | 300 | 413 | 51 | 100 | |
| 14 (350) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 140CR | 588 | | 583 | 586 | 586 | | 540 | 481 | 300 | 300 | 440 | 51 | 175 | |
| 14 (350) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 140CT | 654 | | 649 | 651 | | | 585 | 481 | 300 | 300 | 455 | 51 | 318 | |
| 14 (350) AS4087 PN16, SO / RF | 8705 _ _ _ 140CU | 531 | | 526 | 528 | 529 | | 525 | 481 | 300 | 300 | 438 | 51 | 99 | |
| 14 (350) AS4087 PN21, SO / RF | 8705 _ _ _ 140CW | 531 | | 526 | 528 | 529 | | 550 | 481 | 300 | 300 | 459 | 51 | 133 | |
| 14 (350) AS4087 PN35, SO / RF | 8705 _ _ _ 140CY | 588 | | 583 | 586 | 586 | | 550 | 481 | 300 | 300 | 419 | 51 | 226 | |
| 16 (400) ASME - 150 , SO / RF | 8705 _ _ _ 160C1 | 607 | 607 | 601 | 604 | 604 | | 597 | 532 | 326 | 326 | 470 | 80 | 176 | |
| 16 (400) ASME - 300 , SO / RF | 8705 _ _ _ 160C3 | 664 | | 659 | 661 | 662 | | 648 | 532 | 326 | 326 | 470 | 80 | 320 | |
| 16 (400) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 160C6 | 743 | | | | | | 686 | 532 | 326 | 326 | 470 | 80 | 500 | |
| 16 (400) DIN - PN10, SO / RF | 8705 _ _ _ 160CD | 607 | 607 | 601 | 604 | 604 | | 565 | 532 | 326 | 326 | 482 | 80 | 144 | |
| 16 (400) DIN - PN16, SO / RF | 8705 _ _ _ 160CE | 607 | 607 | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 490 | 80 | 161 | |
| 16 (400) DIN - PN25, SO / RF | 8705 _ _ _ 160CF | 664 | | 659 | 661 | 662 | | 620 | 532 | 326 | 326 | 505 | 80 | 264 | |
| 16 (400) DIN - PN40, SO / RF | 8705 _ _ _ 160CH | 664 | | 659 | 661 | 662 | | 660 | 532 | 326 | 326 | 535 | 80 | 316 | |
| 16 (400) AS2129 TABLE D, SO / RF | 8705 _ _ _ 160CK | 607 | | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 489 | 80 | 129 | |
| 16 (400) AS2129 TABLE E, SO / RF | 8705 _ _ _ 160CL | 607 | | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 489 | 80 | 148 | |
| 16 (400) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 160CP | 607 | | 601 | 604 | 604 | | 560 | 532 | 326 | 326 | 475 | 51 | 134 | |
| 16 (400) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 160CR | 664 | | 659 | 661 | 662 | | 605 | 532 | 326 | 326 | 495 | 51 | 254 | |
| 16 (400) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 160CT | 743 | | 738 | 740 | | | 645 | 532 | 326 | 326 | 515 | 51 | 436 | |
| 16 (400) AS4087 PN16, SO / RF | 8705 _ _ _ 160CU | 607 | | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 489 | 80 | 119 | |
| 16 (400) AS4087 PN21, SO / RF | 8705 _ _ _ 160CW | 607 | | 601 | 604 | 604 | | 610 | 532 | 326 | 326 | 516 | 80 | 175 | |
| 16 (400) AS4087 PN35, SO / RF | 8705 _ _ _ 160CY | 664 | | 659 | 661 | 662 | | 610 | 532 | 326 | 326 | 483 | 80 | 286 | |
| 18 (450) ASME - 150 , SO / RF | 8705 _ _ _ 180C1 | 682 | | 677 | 679 | 680 | | 635 | 596 | 358 | 358 | 533 | 80 | 205 | |
| 18 (450) ASME - 300 , SO / RF | 8705 _ _ _ 180C3 | 761 | | 756 | 758 | 759 | | 711 | 596 | 358 | 358 | 533 | 80 | 411 | |
| 18 (450) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 180C6 | 831 | | | | | | 743 | 596 | 358 | 358 | 533 | 80 | 638 | |
| 18 (450) DIN - PN10, SO / RF | 8705 _ _ _ 180CD | 682 | | 677 | 679 | 680 | | 615 | 596 | 358 | 358 | 532 | 80 | 173 | |
| 18 (450) DIN - PN16, SO / RF | 8705 _ _ _ 180CE | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 550 | 80 | 197 | |
| 18 (450) DIN - PN25, SO / RF | 8705 _ _ _ 180CF | 761 | | 756 | 758 | 759 | | 670 | 596 | 358 | 358 | 555 | 80 | 338 | |
| 18 (450) DIN - PN40, SO / RF | 8705 _ _ _ 180CH | 761 | | 756 | 758 | 759 | | 685 | 596 | 358 | 358 | 560 | 80 | 371 | |
| 18 (450) AS2129 TABLE D, SO / RF | 8705 _ _ _ 180CK | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 532 | 80 | 161 | |
| 18 (450) AS2129 TABLE E, SO / RF | 8705 _ _ _ 180CL | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 552 | 80 | 188 | |
| 18 (450) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 180CP | 682 | | 677 | 679 | 680 | | 620 | 596 | 358 | 358 | 530 | 80 | 169 | |
| 18 (450) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 180CR | 761 | | 756 | 758 | 759 | | 675 | 596 | 358 | 358 | 560 | 80 | 340 | |
| 18 (450) AS4087 PN16, SO / RF | 8705 _ _ _ 180CU | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 552 | 80 | 146 | |
| 18 (450) AS4087 PN21, SO / RF | 8705 _ _ _ 180CW | 682 | | 677 | 679 | 680 | | 675 | 596 | 358 | 358 | 571 | 80 | 205 | |
| 18 (450) AS4087 PN35, SO / RF | 8705 _ _ _ 180CY | 761 | | 756 | 758 | 759 | | 675 | 596 | 358 | 358 | 533 | 80 | 416 | |
| 20 (500) ASME - 150 , SO / RF | 8705 _ _ _ 200C1 | 756 | | 751 | 754 | 754 | | 699 | 647 | 384 | 384 | 584 | 80 | 258 | |
| 20 (500) ASME - 300 , SO / RF | 8705 _ _ _ 200C3 | 839 | | 834 | 836 | 837 | | 775 | 647 | 384 | 384 | 584 | 80 | 511 | |
| 20 (500) ASME - 600 DERAT. , SO / RF | 8705 _ _ _ 200C6 | 936 | | | | | | 813 | 647 | 384 | 384 | 584 | 80 | 827 | |
| 20 (500) DIN - PN10, SO / RF | 8705 _ _ _ 200CD | 756 | | 751 | 754 | 754 | | 670 | 647 | 384 | 384 | 585 | 80 | 215 | |
| 20 (500) DIN - PN16, SO / RF | 8705 _ _ _ 200CE | 756 | | 751 | 754 | 754 | | 715 | 647 | 384 | 384 | 610 | 80 | 257 | |
| 20 (500) DIN - PN25, SO / RF | 8705 _ _ _ 200CF | 839 | | 834 | 836 | 837 | | 730 | 647 | 384 | 384 | 615 | 80 | 423 | |
| 20 (500) DIN - PN40, SO / RF | 8705 _ _ _ 200CH | 839 | | 834 | 836 | 837 | | 754 | 647 | 384 | 384 | 615 | 80 | 459 | |
| 20 (500) AS2129 TABLE D, SO / RF | 8705 _ _ _ 200CK | 756 | | 751 | 754 | 754 | | 705 | 647 | 384 | 384 | 609 | 80 | 214 | |
| 20 (500) AS2129 TABLE E, SO / RF | 8705 _ _ _ 200CL | 756 | | 751 | 754 | 754 | | 705 | 647 | 384 | 384 | 609 | 80 | 239 | |
| 20 (500) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 200CP | 756 | | 751 | 754 | 754 | | 675 | 647 | 384 | 384 | 585 | 80 | 206 | |
| 20 (500) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 200CR | 839 | | 834 | 836 | 837 | | 730 | 647 | 384 | 384 | 615 | 80 | 417 | |
| 20 (500) AS4087 PN16, SO / RF | 8705 _ _ _ 200CU | 756 | | 751 | 754 | 754 | | 705 | 647 | 384 | 384 | 609 | 80 | 205 | |
| 20 (500) AS4087 PN21, SO / RF | 8705 _ _ _ 200CW | 756 | | 751 | 754 | 754 | | 735 | 647 | 384 | 384 | 634 | 80 | 285 | |
| 20 (500) AS4087 PN35, SO / RF | 8705 _ _ _ 200CY | 839 | | 834 | 836 | 837 | | 735 | 647 | 384 | 384 | 597 | 80 | 487 | |

Table 111: 8705-M Flanged sensor DN 600mm to 900mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|-------------------------------------|---|-------------------------------|--------------------|------------------------|-----------------------|-----------------|----------------|---------|---------------------|-------------------|---------------------|------|-------------------------------|--------------------------------|--------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | STYLE A | | | STYLE B | | | | |
| | | 24 (600) ASME - 150 , SO / RF | 8705 _ _ _ 240C1 | 908 | | 903 | 905 | 906 | | | | 813 | | | |
| 24 (600) ASME - 300 , SO / RF | 8705 _ _ _ 240C3 | 1000 | | 995 | 997 | 998 | | 914 | 763 | 442 | 441 | 692 | 80 | 784 | |
| 24 (600) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 240C6 | 1050 | | | | | | 940 | 763 | 442 | 441 | 692 | 80 | 1220 | |
| 24 (600) DIN - PN10, SO / RF | 8705 _ _ _ 240CD | 908 | | 903 | 905 | 906 | | 780 | 763 | 442 | 441 | 685 | 80 | 300 | |
| 24 (600) DIN - PN16, SO / RF | 8705 _ _ _ 240CE | 908 | | 903 | 905 | 906 | | 840 | 763 | 442 | 441 | 725 | 80 | 377 | |
| 24 (600) DIN - PN25, SO / RF | 8705 _ _ _ 240CF | 1000 | | 995 | 997 | 998 | | 845 | 763 | 442 | 441 | 720 | 80 | 613 | |
| 24 (600) DIN - PN40, SO / RF | 8705 _ _ _ 240CH | 1000 | | 995 | 997 | 998 | | 890 | 763 | 442 | 441 | 735 | 80 | 738 | |
| 24 (600) AS2129 TABLE D, SO / RF | 8705 _ _ _ 240CK | 908 | | 903 | 905 | 906 | | 825 | 763 | 442 | 441 | 720 | 80 | 314.2 | |
| 24 (600) AS2129 TABLE E, SO / RF | 8705 _ _ _ 240CL | 908 | | 903 | 905 | 906 | | 825 | 763 | 442 | 441 | 717 | 80 | 369.6 | |
| 24 (600) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 240CP | 908 | | 903 | 905 | 906 | | 795 | 763 | 442 | 441 | 690 | 80 | 299.1 | |
| 24 (600) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 240CR | 1000 | | 995 | 997 | 998 | | 845 | 763 | 442 | 441 | 720 | 80 | 613.9 | |
| 24 (600) AS4087 PN16, SO / RF | 8705 _ _ _ 240CU | 908 | | 903 | 905 | 906 | | 825 | 763 | 442 | 441 | 720 | 80 | 321.6 | |
| 24 (600) AS4087 PN21, SO / RF | 8705 _ _ _ 240CW | 1000 | | 995 | 997 | 998 | | 850 | 763 | 442 | 441 | 739 | 80 | 586.5 | |
| 24 (600) AS4087 PN35, SO / RF | 8705 _ _ _ 240CY | 1000 | | 995 | 997 | 998 | | 850 | 763 | 442 | 441 | 699 | 80 | 693.2 | |
| 30 (750) AWWA CLASS D, SO / FF | 8705 _ _ _ 300C1 | 940 | | 935 | 937 | 941 | | 984 | 902 | 511 | 511 | 857 | 80 | 407.0 | |
| 30 (750) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 300C2 | 1056 | | 1050 | 1053 | 1053 | | 984 | 902 | 511 | 511 | 857 | 80 | 708.3 | |
| 30 (750) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 300C3 | 1200 | | 1195 | 1197 | 1198 | | 1092 | 902 | 511 | 511 | 857 | 80 | 1338.4 | |
| 30 (750) AS2129 TABLE D, SO / RF | 8705 _ _ _ 300CK | 940 | | 935 | 937 | 941 | | 995 | 902 | 511 | 511 | 888 | 80 | 470.4 | |
| 30 (750) AS2129 TABLE E, SO / RF | 8705 _ _ _ 300CL | 1056 | | 1050 | 1053 | 1053 | | 995 | 902 | 511 | 511 | 857 | 80 | 578.4 | |
| 30 (750) AS4087 PN16, SO / RF | 8705 _ _ _ 300CU | 940 | | 935 | 937 | 938 | | 995 | 902 | 511 | 511 | 888 | 80 | 491.5 | |
| 30 (750) AS4087 PN21, SO / RF | 8705 _ _ _ 300CW | 1056 | | 1050 | 1053 | 1053 | | 1015 | 902 | 511 | 511 | 76 | 80 | 485.8 | |
| 30 (750) AS4087 PN35, SO / RF | 8705 _ _ _ 300CY | 1200 | | 1195 | 1197 | 1198 | | 1015 | 902 | 511 | 511 | 898 | 80 | 1112.4 | |
| 36 (900) AWWA CLASS D, SO / FF | 8705 _ _ _ 360C1 | 1032 | | 1027 | 1029 | 1033 | | 1168 | 1102 | 610 | 611 | 1022 | 80 | 574.9 | |
| 36 (900) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 360C2 | 1200 | | 1195 | 1197 | 1198 | | 1168 | 1102 | 610 | 611 | 1022 | 80 | 1156.9 | |
| 36 (900) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 360C3 | 1351 | | 1345 | 1348 | 1348 | | 1270 | 1102 | 610 | 611 | 1022 | 86 | 2079.3 | |
| 36 (900) AS2129 TABLE D, SO / RF | 8705 _ _ _ 360CK | 1032 | | 1027 | 1029 | 1033 | | 1175 | 1102 | 610 | 611 | 1050 | 80 | 687.3 | |
| 36 (900) AS2129 TABLE E, SO / RF | 8705 _ _ _ 360CL | 1200 | | 1195 | 1197 | 1198 | | 1175 | 1102 | 610 | 611 | 1050 | 80 | 955.1 | |
| 36 (900) AS4087 PN16, SO / RF | 8705 _ _ _ 360CU | 1032 | | 1027 | 1029 | 1030 | | 1175 | 1102 | 610 | 611 | 1050 | 80 | 707.3 | |
| 36 (900) AS4087 PN21, SO / RF | 8705 _ _ _ 360CW | 1200 | | 1195 | 1197 | 1198 | | 1185 | 1102 | 610 | 611 | 1060 | 80 | 934.8 | |
| 36 (900) AS4087 PN35, SO / RF | 8705 _ _ _ 360CY | 1351 | | 1345 | 1348 | 1348 | | 1185 | 1102 | 610 | 611 | 1030 | 86 | 1678.7 | |

Figure 11: 8705-M Flanged sensor 1/2-in. to 36-in. (DN 15mm to 900mm) weld neck flanges—(P ≤ Class 600 derated)

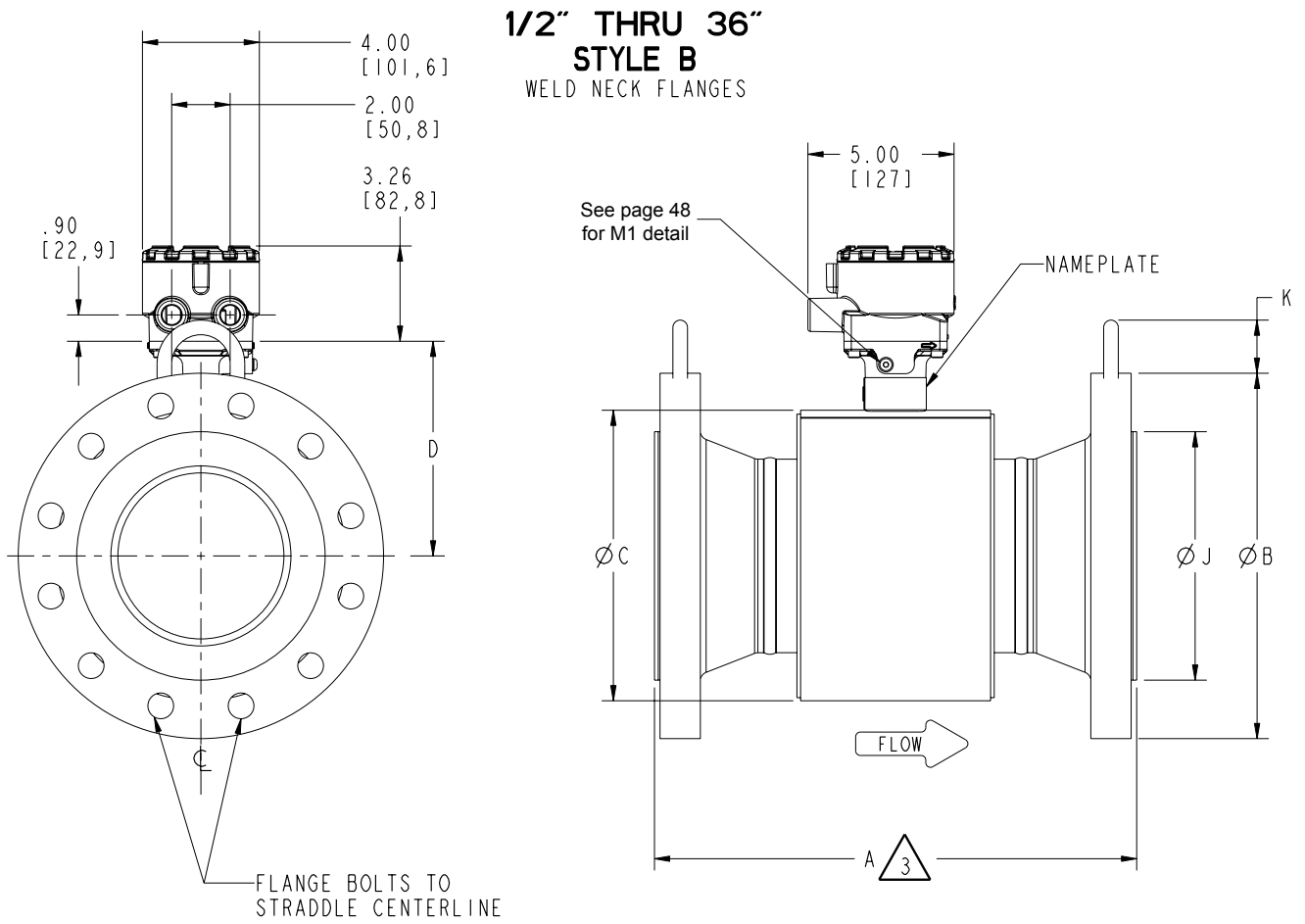



Table 112: 8705-M Flanged sensor 1/2 -in. to 36-in. weld neck flanges—low pressure (P ≤ Class 600 derated)—Inches

| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL 10 TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|-------------------------------------|---|-----------------|---------------------|--------------------|-----------------|---------------------|-------------------|---------------------|---------|-------------------------------|--------------------------------|-------------------------------|
| | | DIM "A" PTFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 150 , WN / RF | 8705 _ _ _ 005D1 | 10.32 | | | | 3.50 | 4.50 | 4.41 | 4.61 | 1.38 | | 10 |
| 0.5 (15) ASME - 300 , WN / RF | 8705 _ _ _ 005D3 | 10.34 | | | | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | | 11 |
| 1 (25) ASME - 150 , WN / RF | 8705 _ _ _ 010D1 | 11.17 | 11.08 | 11.14 | 11.17 | 4.25 | 4.50 | 4.41 | 4.61 | 2.00 | | 13 |
| 1 (25) ASME - 300 , WN / RF | 8705 _ _ _ 010D3 | 11.17 | 11.08 | 11.14 | 11.17 | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | | 16 |
| 1 (25) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 010D6 | 11.68 | | | | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | | 17 |
| 1.5 (40) ASME - 150 , WN / RF | 8705 _ _ _ 015D1 | 11.08 | 11.01 | 11.07 | 11.08 | 5.00 | 5.21 | 4.82 | 4.97 | 2.88 | | 19 |
| 1.5 (40) ASME - 300 , WN / RF | 8705 _ _ _ 015D3 | 11.08 | 11.01 | 11.07 | 11.08 | 6.12 | 5.21 | 4.82 | 4.97 | 2.88 | | 24 |
| 1.5 (40) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 015D6 | 11.76 | | | | 6.12 | 5.21 | 4.82 | 4.97 | 2.50 | | 26 |
| 2 (50) ASME - 150 , WN / RF | 8705 _ _ _ 020D1 | 11.20 | 11.13 | 11.19 | 11.20 | 6.00 | 5.21 | 4.82 | 4.97 | 3.62 | | 24 |
| 2 (50) ASME - 300 , WN / RF | 8705 _ _ _ 020D3 | 11.20 | 11.13 | 11.19 | 11.20 | 6.50 | 5.21 | 4.82 | 4.97 | 3.62 | | 28 |
| 2 (50) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 020D6 | 12.04 | | | | 6.50 | 5.21 | 4.82 | 4.97 | 3.25 | | 32 |
| 3 (80) ASME - 150 , WN / RF | 8705 _ _ _ 030D1 | 12.17 | 12.06 | 12.12 | 12.18 | 7.50 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 43 |
| 3 (80) ASME - 300 , WN / RF | 8705 _ _ _ 030D3 | 12.17 | 12.06 | 12.12 | 12.18 | 8.25 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 53 |
| 3 (80) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 030D6 | 13.03 | | | | 8.25 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 59 |
| 4 (100) ASME - 150 , WN / RF | 8705 _ _ _ 040D1 | 13.94 | 13.81 | 13.87 | 13.96 | 9.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 60 |
| 4 (100) ASME - 300 , WN / RF | 8705 _ _ _ 040D3 | 13.94 | 13.81 | 13.87 | 13.96 | 10.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 81 |
| 4 (100) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 040D6 | 15.84 | | | | 10.75 | 7.91 | 6.17 | 6.32 | 5.81 | 1.70 | 109 |
| 6 (150) ASME - 150 , WN / RF | 8705 _ _ _ 060D1 | 16.66 | 16.48 | 16.54 | 16.60 | 11.00 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 100 |
| 6 (150) ASME - 300 , WN / RF | 8705 _ _ _ 060D3 | 16.66 | 16.48 | 16.54 | 16.60 | 12.50 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 142 |
| 6 (150) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 060D6 | 19.05 | | | | 14.00 | 9.98 | 7.30 | 7.35 | 8.00 | 1.70 | 231 |
| 8 (200) ASME - 150 , WN / RF | 8705 _ _ _ 080D1 | 19.22 | 19.03 | 19.09 | 19.15 | 13.50 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 160 |
| 8 (200) ASME - 300 , WN / RF | 8705 _ _ _ 080D3 | 19.22 | 19.03 | 19.09 | 19.15 | 15.00 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 220 |
| 8 (200) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 080D6 | 22.15 | | | | 16.50 | 11.92 | 8.27 | 8.32 | 10.00 | 1.70 | 362 |
| 10 (250) ASME - 150 , WN / RF | 8705 _ _ _ 100D1 | 19.95 | 19.68 | 19.74 | 19.80 | 16.00 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 230 |
| 10 (250) ASME - 300 , WN / RF | 8705 _ _ _ 100D3 | 19.95 | 19.68 | 19.74 | 19.80 | 17.50 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 320 |
| 10 (250) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 100D6 | 23.68 | | | | 20.00 | 14.64 | 9.69 | 9.68 | 12.00 | 2.00 | 583 |
| 12 (300) ASME - 150 , WN / RF | 8705 _ _ _ 120D1 | 23.83 | 23.49 | 23.55 | 23.61 | 19.00 | 16.50 | 10.77 | 10.61 | 15.00 | 2.00 | 349 |
| 12 (300) ASME - 300 , WN / RF | 8705 _ _ _ 120D3 | 23.83 | 23.49 | 23.55 | 23.61 | 20.50 | 16.50 | 10.77 | 10.61 | 15.00 | 2.00 | 464 |
| 12 (300) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 120D6 | 26.93 | | | | 22.00 | 16.50 | 10.77 | 10.61 | 14.00 | 2.00 | 758 |
| 14 (350) ASME - 150 , WN / RF | 8705 _ _ _ 140D1 | 27.20 | 27.00 | 27.06 | 27.12 | 21.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 452 |
| 14 (350) ASME - 300 , WN / RF | 8705 _ _ _ 140D3 | 27.20 | 27.00 | 27.06 | 27.12 | 23.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 661 |
| 14 (350) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 140D6 | 30.29 | | | | 23.75 | 18.92 | 11.83 | 11.82 | 15.25 | 2.00 | 938 |
| 16 (400) ASME - 150 , WN / RF | 8705 _ _ _ 160D1 | 29.78 | 29.58 | 29.64 | 29.70 | 23.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 487 |
| 16 (400) ASME - 300 , WN / RF | 8705 _ _ _ 160D3 | 29.78 | 29.58 | 29.64 | 29.70 | 25.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 853 |
| 16 (400) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 160D6 | 33.57 | | | | 27.00 | 20.94 | 12.84 | 12.83 | 17.50 | 3.13 | 1274 |
| 18 (450) ASME - 150 , WN / RF | 8705 _ _ _ 180D1 | 31.97 | 31.77 | 31.83 | 31.89 | 25.00 | 23.46 | 14.10 | 14.09 | 21.00 | 3.13 | 679 |
| 18 (450) ASME - 300 , WN / RF | 8705 _ _ _ 180D3 | 31.97 | 31.77 | 31.83 | 31.89 | 28.00 | 23.46 | 14.10 | 14.09 | 21.00 | 3.13 | 1094 |
| 18 (450) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 180D6 | 35.23 | | | | 29.25 | 23.46 | 14.10 | 14.09 | 20.00 | 3.13 | 1531 |
| 20 (500) ASME - 150 , WN / RF | 8705 _ _ _ 200D1 | 34.76 | 34.56 | 34.62 | 34.68 | 27.50 | 25.48 | 15.11 | 15.10 | 23.00 | 3.13 | 722 |
| 20 (500) ASME - 300 , WN / RF | 8705 _ _ _ 200D3 | 34.76 | 34.56 | 34.62 | 34.68 | 30.50 | 25.48 | 15.11 | 15.10 | 23.00 | 3.13 | 1337 |
| 20 (500) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 200D6 | 38.26 | | | | 32.00 | 25.48 | 15.11 | 15.10 | 22.00 | 3.13 | 1892 |
| 24 (600) ASME - 150 , WN / RF | 8705 _ _ _ 240D1 | 38.30 | 38.10 | 38.16 | 38.22 | 32.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 1118 |
| 24 (600) ASME - 300 , WN / RF | 8705 _ _ _ 240D3 | 38.30 | 38.10 | 38.16 | 38.22 | 36.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 1964 |
| 24 (600) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 240D6 | 42.33 | | | | 37.00 | 30.03 | 17.39 | 17.38 | 26.00 | 3.13 | 2838 |
| 30 (750) ASME - 150 , WN / RF | 8705 _ _ _ 300D2 | 41.56 | 41.36 | 41.45 | 41.48 | 38.75 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 1679 |
| 30 (750) ASME - 300 , WN / RF | 8705 _ _ _ 300D3 | 47.16 | 46.96 | 47.02 | 47.08 | 43.00 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 3166 |
| 36 (900) ASME - 150 , WN / RF | 8705 _ _ _ 360D2 | 47.25 | 47.05 | 47.14 | 47.17 | 46.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.13 | 2728 |
| 36 (900) ASME - 300 , WN / RF | 8705 _ _ _ 360D3 | 53.16 | 52.96 | 53.02 | 53.08 | 50.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.38 | 4723 |

**Table 113: 8705-M Flanged sensor DN 15mm to 900mm weld neck flanges—low pressure (P ≤ Class 600 derated)—
Millimeters**


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|-------------------------------------|---|--------------------|------------------------|-----------------------|-----------------|---------------------|-------------------|---------------------|---------|-------------------------------|--------------------------------|--------------------------------|
| | | DIM "A" PTFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 150 , WN / RF | 8705 _ _ _ 005D1 | 262 | | | | 88 | 114 | 112 | 117 | 35 | | 4 |
| 0.5 (15) ASME - 300 , WN / RF | 8705 _ _ _ 005D3 | 263 | | | | 95 | 114 | 112 | 117 | 35 | | 5 |
| 1 (25) ASME - 150 , WN / RF | 8705 _ _ _ 010D1 | 284 | 281 | 283 | 284 | 108 | 114 | 112 | 117 | 51 | | 6 |
| 1 (25) ASME - 300 , WN / RF | 8705 _ _ _ 010D3 | 284 | 281 | 283 | 284 | 124 | 114 | 112 | 117 | 51 | | 7 |
| 1 (25) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 010D6 | 297 | | | | 124 | 114 | 112 | 117 | 51 | | 8 |
| 1.5 (40) ASME - 150 , WN / RF | 8705 _ _ _ 015D1 | 281 | 280 | 281 | 281 | 127 | 132 | 122 | 126 | 73 | | 8 |
| 1.5 (40) ASME - 300 , WN / RF | 8705 _ _ _ 015D3 | 281 | 280 | 281 | 281 | 155 | 132 | 122 | 126 | 73 | | 11 |
| 1.5 (40) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 015D6 | 299 | | | | 155 | 132 | 122 | 126 | 64 | | 12 |
| 2 (50) ASME - 150 , WN / RF | 8705 _ _ _ 020D1 | 285 | 283 | 284 | 284 | 152 | 132 | 122 | 126 | 92 | | 11 |
| 2 (50) ASME - 300 , WN / RF | 8705 _ _ _ 020D3 | 285 | 283 | 284 | 284 | 165 | 132 | 122 | 126 | 92 | | 13 |
| 2 (50) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 020D6 | 306 | | | | 165 | 132 | 122 | 126 | 83 | | 14 |
| 3 (80) ASME - 150 , WN / RF | 8705 _ _ _ 030D1 | 309 | 306 | 308 | 309 | 191 | 183 | 148 | 152 | 127 | 43 | 20 |
| 3 (80) ASME - 300 , WN / RF | 8705 _ _ _ 030D3 | 309 | 306 | 308 | 309 | 210 | 183 | 148 | 152 | 127 | 43 | 24 |
| 3 (80) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 030D6 | 331 | | | | 210 | 183 | 148 | 152 | 117 | 43 | 27 |
| 4 (100) ASME - 150 , WN / RF | 8705 _ _ _ 040D1 | 354 | 351 | 352 | 355 | 229 | 201 | 157 | 160 | 157 | 43 | 27 |
| 4 (100) ASME - 300 , WN / RF | 8705 _ _ _ 040D3 | 354 | 351 | 352 | 355 | 254 | 201 | 157 | 160 | 157 | 43 | 37 |
| 4 (100) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 040D6 | 402 | | | | 273 | 201 | 157 | 160 | 148 | 43 | 49 |
| 6 (150) ASME - 150 , WN / RF | 8705 _ _ _ 060D1 | 423 | 419 | 420 | 422 | 279 | 253 | 185 | 187 | 216 | 43 | 45 |
| 6 (150) ASME - 300 , WN / RF | 8705 _ _ _ 060D3 | 423 | 419 | 420 | 422 | 318 | 253 | 185 | 187 | 216 | 43 | 64 |
| 6 (150) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 060D6 | 484 | | | | 356 | 253 | 185 | 187 | 203 | 43 | 105 |
| 8 (200) ASME - 150 , WN / RF | 8705 _ _ _ 080D1 | 488 | 483 | 485 | 486 | 343 | 303 | 210 | 211 | 270 | 43 | 73 |
| 8 (200) ASME - 300 , WN / RF | 8705 _ _ _ 080D3 | 488 | 483 | 485 | 486 | 381 | 303 | 210 | 211 | 270 | 43 | 100 |
| 8 (200) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 080D6 | 563 | | | | 419 | 303 | 210 | 211 | 254 | 43 | 164 |
| 10 (250) ASME - 150 , WN / RF | 8705 _ _ _ 100D1 | 507 | 500 | 501 | 503 | 406 | 372 | 246 | 246 | 324 | 51 | 104 |
| 10 (250) ASME - 300 , WN / RF | 8705 _ _ _ 100D3 | 507 | 500 | 501 | 503 | 445 | 372 | 246 | 246 | 324 | 51 | 145 |
| 10 (250) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 100D6 | 601 | | | | 508 | 372 | 246 | 246 | 305 | 51 | 265 |
| 12 (300) ASME - 150 , WN / RF | 8705 _ _ _ 120D1 | 605 | 597 | 598 | 600 | 483 | 419 | 274 | 269 | 381 | 51 | 158 |
| 12 (300) ASME - 300 , WN / RF | 8705 _ _ _ 120D3 | 605 | 597 | 598 | 600 | 521 | 419 | 274 | 269 | 381 | 51 | 211 |
| 12 (300) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 120D6 | 684 | | | | 559 | 419 | 274 | 269 | 356 | 51 | 344 |
| 14 (350) ASME - 150 , WN / RF | 8705 _ _ _ 140D1 | 691 | 686 | 687 | 689 | 533 | 481 | 300 | 300 | 413 | 51 | 205 |
| 14 (350) ASME - 300 , WN / RF | 8705 _ _ _ 140D3 | 691 | 686 | 687 | 689 | 584 | 481 | 300 | 300 | 413 | 51 | 300 |
| 14 (350) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 140D6 | 769 | | | | 603 | 481 | 300 | 300 | 387 | 51 | 426 |
| 16 (400) ASME - 150 , WN / RF | 8705 _ _ _ 160D1 | 757 | 751 | 753 | 754 | 597 | 532 | 326 | 326 | 470 | 80 | 221 |
| 16 (400) ASME - 300 , WN / RF | 8705 _ _ _ 160D3 | 757 | 751 | 753 | 754 | 648 | 532 | 326 | 326 | 470 | 80 | 387 |
| 16 (400) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 160D6 | 853 | | | | 686 | 532 | 326 | 326 | 445 | 80 | 578 |
| 18 (450) ASME - 150 , WN / RF | 8705 _ _ _ 180D1 | 812 | 807 | 808 | 810 | 635 | 596 | 358 | 358 | 533 | 80 | 308 |
| 18 (450) ASME - 300 , WN / RF | 8705 _ _ _ 180D3 | 812 | 807 | 808 | 810 | 711 | 596 | 358 | 358 | 533 | 80 | 496 |
| 18 (450) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 180D6 | 895 | | | | 743 | 596 | 358 | 358 | 508 | 80 | 694 |
| 20 (500) ASME - 150 , WN / RF | 8705 _ _ _ 200D1 | 883 | 878 | 879 | 881 | 699 | 647 | 384 | 384 | 584 | 80 | 327 |
| 20 (500) ASME - 300 , WN / RF | 8705 _ _ _ 200D3 | 883 | 878 | 879 | 881 | 775 | 647 | 384 | 384 | 584 | 80 | 606 |
| 20 (500) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 200D6 | 972 | | | | 813 | 647 | 384 | 384 | 559 | 80 | 858 |
| 24 (600) ASME - 150 , WN / RF | 8705 _ _ _ 240D1 | 973 | 968 | 969 | 971 | 813 | 763 | 442 | 441 | 692 | 80 | 507 |
| 24 (600) ASME - 300 , WN / RF | 8705 _ _ _ 240D3 | 973 | 968 | 969 | 971 | 914 | 763 | 442 | 441 | 692 | 80 | 891 |
| 24 (600) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 240D6 | 1075 | | | | 940 | 763 | 442 | 441 | 660 | 80 | 1287 |
| 30 (750) ASME - 150 , WN / RF | 8705 _ _ _ 300D2 | 1056 | 1050 | 1053 | 1053 | 984 | 902 | 511 | 511 | 857 | 80 | 761 |
| 30 (750) ASME - 300 , WN / RF | 8705 _ _ _ 300D3 | 1198 | 1193 | 1194 | 1196 | 1092 | 902 | 511 | 511 | 857 | 80 | 1436 |
| 36 (900) ASME - 150 , WN / RF | 8705 _ _ _ 360D2 | 1200 | 1195 | 1197 | 1198 | 1168 | 1102 | 610 | 611 | 1022 | 80 | 1237 |
| 36 (900) ASME - 300 , WN / RF | 8705 _ _ _ 360D3 | 1350 | 1345 | 1347 | 1348 | 1270 | 1102 | 610 | 611 | 1022 | 86 | 2143 |

Figure 12: 8705-M Flanged sensor 1/2 -in. to 36-in. (DN 15mm to 900mm) M2/M4 coil housing (P ≤ Class 600 derated)

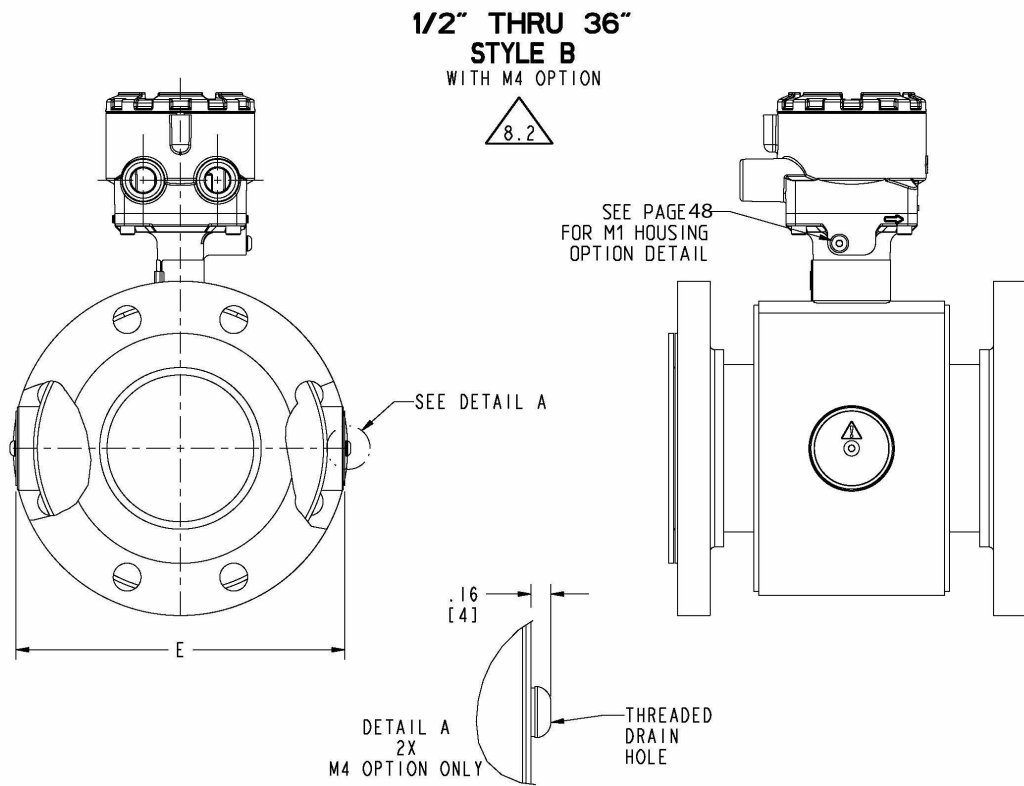
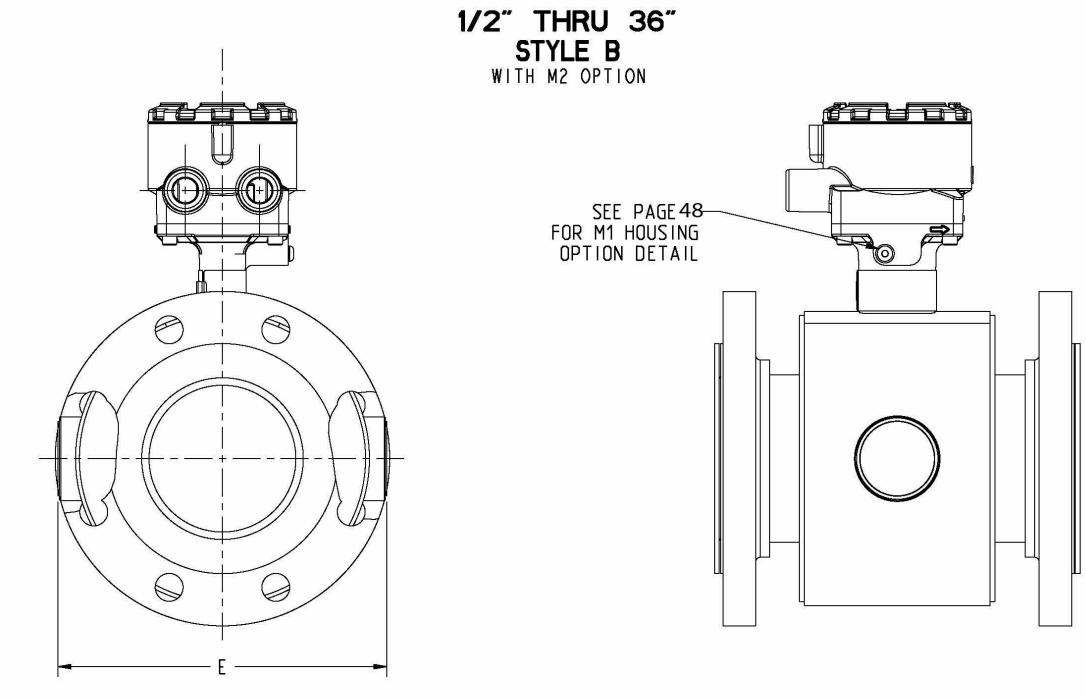


Figure 13: 8705-M Flanged Sensor 1/2 -in. to 36-in. (DN 15mm to 900mm) M2/M4 coil housing (P ≤ Class 600 derated)

| TABLE 114 BODY WIDTH WITH ELECTRODE ACCESS (M2) | | |
|---|---------------------------------|-------------------------------|
| Size -- in (mm) All Flanges | Body Width w/ M2 DIM "E" (inch) | Body Width w/ M2 DIM "E" (mm) |
| 0.5 (15) | 5.22 | 133 |
| 1 (25) | 5.70 | 145 |
| 1.5 (40) | 5.88 | 149 |
| 2 (50) | 6.36 | 161 |
| 2.5 (60) | 6.86 | 174 |
| 3 (80) | 7.88 | 200 |
| 4 (100) | 8.88 | 226 |
| 5 (125) | 9.71 | 247 |
| 6 (150) | 10.62 | 270 |
| 8 (200) | 12.62 | 321 |
| 10 (250) | 15.53 | 394 |
| 12 (300) | 17.53 | 445 |
| 14 (350) | 20.68 | 525 |
| 16 (400) | 22.68 | 576 |
| 18 (450) | 24.68 | 627 |
| 20 (500) | 26.68 | 678 |
| 24 (600) | 30.68 | 779 |
| 30 (750) | 36.68 | 932 |
| 36 (900) | 44.18 | 1122 |

8.2 WHEN VENTING THE ELECTRODE COMPARTMENT, THE VENT AND RECOVERY PIPING DIAMETER MUST NOT BE SMALLER THAN THE M6 COVER THREADING TO AVOID BUILDING PRESSURE INSIDE THE ELECTRODE COMPARTMENT.

8.1 WHEN M4 OPTION IS SELECTED ADD .320" (8mm) TO M2 DIM "E" (BODY WIDTH DIMENSION)

8705-M High pressure dimensions

The following notes apply to Figure 14 and Table 114 through Table 119:

1 FOR BREVITY, THE MODEL NUMBER LIST ONLY CONTAINS THE CODES FOR CARBON STEEL FLANGES. 304 AND 316 STAINLESS STEEL FLANGES ARE DIMENSIONALLY IDENTICAL TO CARBON STEEL. USE THE TABLE BELOW TO FIND THE CARBON STEEL CODE THAT CORRESPONDS TO EACH STAINLESS STEEL CODE.

2.1 OPTIONAL RELIEF VALVE ASSEMBLY IS 1.75" 144.51

| STAINLESS STEEL CODES | ARE THE SAME DIMENSIONS AS CARBON STEEL CODE |
|-----------------------|--|
| S,P | C |
| T,R | D |
| G,H | F |
| K,L | J |

Figure 14: 8705-M Flanged Sensor 1/2 -in. to 24-in. (DN 15mm to 600mm) slip-on flange - high pressure ($P \leq$ Class 900)

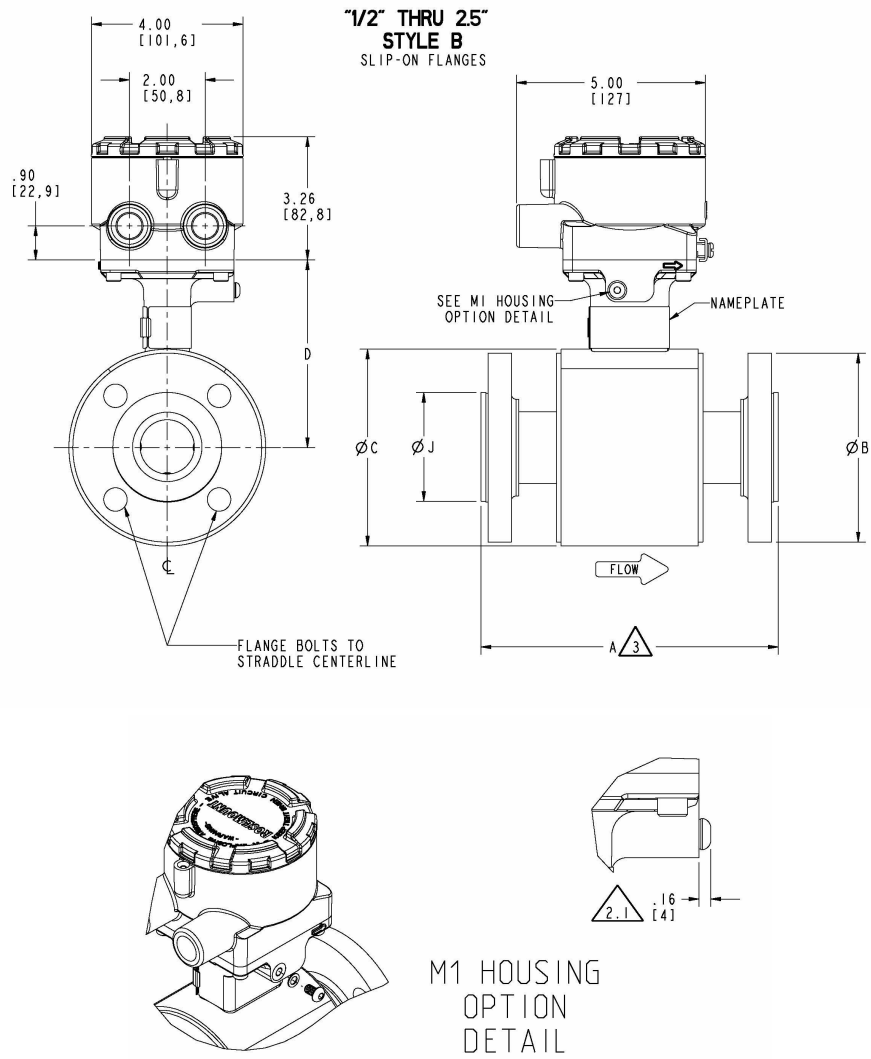


Table 114: 8705-M Flanged Sensor 1/2 -in. to 24-in. slip-on flange—high pressure (P ≤ Class 900)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL TO TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|-------------------------------------|---|----------------|--------------|------------------|-----------------|--------------|------------------|----------------|------------------|---------|-------------------------|--------------------------|-------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 005C6 | 8.38 | 8.38 | 8.38 | 8.48 | 8.38 | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | | 10 |
| 0.5 (15) ASME - 600 FULL, SO / RF | 8705 _ _ _ 005C7 | | 8.38 | 8.25 | 8.25 | 8.25 | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | | 10 |
| 1 (25) ASME - 900 , SO / RTJ | 8705 _ _ _ 010.9 | | | 9.53 | 9.53 | 9.53 | 5.88 | 4.50 | 4.41 | 4.61 | 1.51 | 1.70 | 24 |
| 1 (25) ASME - 600 FULL, SO / RF | 8705 _ _ _ 010C7 | | | 8.53 | 8.53 | 8.53 | 4.88 | 4.50 | 4.41 | 4.61 | 1.63 | | 15 |
| 1 (25) ASME - 900 , SO / RF | 8705 _ _ _ 010C9 | | | 9.49 | 9.49 | 9.49 | 5.88 | 4.50 | 4.41 | 4.61 | 1.63 | 1.70 | 24 |
| 1.5 (40) ASME - 600 FULL, SO / RF | 8705 _ _ _ 015C7 | | | 8.42 | 8.42 | 8.42 | 6.12 | 5.21 | 4.82 | 4.97 | 2.50 | | 23 |
| 1.5 (40) ASME - 900 , SO / RF | 8705 _ _ _ 015C9 | | | 9.49 | 9.49 | 9.49 | 7.00 | 5.21 | 4.82 | 4.97 | 2.50 | 1.70 | 34 |
| 2 (50) ASME - 600 FULL, SO / RF | 8705 _ _ _ 020C7 | | | 8.57 | 8.57 | 8.57 | 6.50 | 5.21 | 4.82 | 4.97 | 3.25 | | 27 |
| 2 (50) ASME - 900 , SO / RF | 8705 _ _ _ 020C9 | | | 10.23 | 10.23 | 10.23 | 8.50 | 5.21 | 4.82 | 4.97 | 3.25 | 1.70 | 57 |
| 2.5 (65) ASME - 600 FULL, SO / RF | 8705 _ _ _ 025C7 | | | 8.61 | | | 7.50 | 6.31 | 5.37 | 5.52 | 3.75 | | 41 |
| 2.5 (65) ASME - 900 , SO / RF | 8705 _ _ _ 025C9 | | | 10.23 | | | 9.62 | 6.31 | 5.37 | 5.52 | 3.75 | 1.70 | 82 |
| 3 (65) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 030.7 | | | 12.19 | 12.19 | 12.19 | 8.25 | 7.21 | 5.82 | 5.97 | 4.00 | | 53 |
| 3 (65) ASME - 900 , SO / RTJ | 8705 _ _ _ 030.9 | | | 12.82 | 12.82 | 12.82 | 9.50 | 7.21 | 5.82 | 5.97 | 3.94 | | 75 |
| 3 (80) ASME - 600 FULL, SO / RF | 8705 _ _ _ 030C7 | | | 12.16 | 12.16 | 12.16 | 8.25 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 53 |
| 3 (80) ASME - 900 , SO / RF | 8705 _ _ _ 030C9 | | | 12.79 | 12.79 | 12.79 | 9.50 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 74 |
| 4 (80) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 040.7 | | | 12.60 | 12.60 | 12.60 | 10.75 | 7.91 | 6.17 | 6.32 | 4.94 | 1.70 | 92 |
| 4 (80) ASME - 900 , SO / RTJ | 8705 _ _ _ 040.9 | | | 13.89 | 13.89 | 13.89 | 11.50 | 7.91 | 6.17 | 6.32 | 4.94 | 2.00 | 123 |
| 4 (100) ASME - 600 FULL, SO / RF | 8705 _ _ _ 040C7 | | | 12.56 | 12.56 | 12.56 | 10.75 | 7.91 | 6.17 | 6.32 | 5.81 | 1.70 | 93 |
| 4 (100) ASME - 900 , SO / RF | 8705 _ _ _ 040C9 | | | 13.86 | 13.86 | 13.86 | 11.50 | 7.91 | 6.17 | 6.32 | 5.81 | 2.00 | 123 |
| 5 (125) ASME - 600 FULL, SO / RF | 8705 _ _ _ 050C7 | | | 12.81 | | | 13.00 | 9.61 | 7.02 | 7.17 | 6.91 | 1.70 | 156 |
| 5 (125) ASME - 900 , SO / RF | 8705 _ _ _ 050C9 | | | 13.86 | | | 13.75 | 9.61 | 7.02 | 7.17 | 6.91 | 1.70 | 201 |
| 6 (125) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 060.7 | | | 15.57 | 15.57 | 15.57 | 14.00 | 9.98 | 7.30 | 7.35 | 7.12 | 1.70 | 193 |
| 6 (200) ASME - 900 , SO / RTJ | 8705 _ _ _ 060.9 | | | 17.58 | 17.58 | 17.58 | 15.00 | 9.98 | 7.30 | 7.35 | 7.12 | 2.00 | 254 |
| 6 (150) ASME - 600 FULL, SO / RF | 8705 _ _ _ 060C7 | | | 13.92 | 13.92 | 13.92 | 14.00 | 9.98 | 7.30 | 7.35 | 8.00 | 1.70 | 189 |
| 6 (150) ASME - 900 , SO / RF | 8705 _ _ _ 060C9 | | | 17.55 | 17.55 | 17.55 | 15.00 | 9.98 | 7.30 | 7.35 | 8.00 | 2.00 | 254 |
| 8 (150) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 080.7 | | | 17.58 | 17.58 | 17.58 | 16.50 | 11.92 | 8.27 | 8.32 | 9.37 | 1.70 | 298 |
| 8 (150) ASME - 900 , SO / RTJ | 8705 _ _ _ 080.9 | | | 20.61 | 20.61 | 20.61 | 18.50 | 11.92 | 8.27 | 8.32 | 9.13 | 3.13 | 446 |
| 8 (200) ASME - 600 FULL, SO / RF | 8705 _ _ _ 080C7 | | | 16.44 | 16.44 | 16.44 | 16.50 | 11.92 | 8.27 | 8.32 | 10.00 | 1.70 | 292 |
| 8 (200) ASME - 900 , SO / RF | 8705 _ _ _ 080C9 | | | 20.58 | 20.58 | 20.58 | 18.50 | 11.92 | 8.27 | 8.32 | 10.00 | 3.13 | 444 |
| 10 (200) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 100.7 | | | 19.08 | 19.08 | 19.08 | 20.00 | 14.64 | 9.69 | 9.68 | 11.50 | 2.00 | 480 |
| 10 (200) ASME - 900 , SO / RTJ | 8705 _ _ _ 100.9 | | | 21.57 | 21.57 | 21.57 | 21.50 | 14.64 | 9.69 | 9.68 | 11.25 | 3.13 | 655 |
| 10 (250) ASME - 600 FULL, SO / RF | 8705 _ _ _ 100C7 | | | 19.05 | 19.05 | 19.05 | 20.00 | 14.64 | 9.69 | 9.68 | 12.00 | 2.00 | 476 |
| 10 (250) ASME - 900 , SO / RF | 8705 _ _ _ 100C9 | | | 21.54 | 21.54 | 21.54 | 21.50 | 14.64 | 9.69 | 9.68 | 12.00 | 3.13 | 650 |
| 12 (250) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 120.7 | | | 21.78 | 21.78 | 21.78 | 22.00 | 16.80 | 10.77 | 10.76 | 13.75 | 2.00 | 636 |
| 12 (250) ASME - 900 , SO / RTJ | 8705 _ _ _ 120.9 | | | 25.18 | 25.18 | 25.18 | 24.00 | 16.80 | 10.77 | 10.76 | 13.50 | 3.13 | 914 |
| 12 (300) ASME - 600 FULL, SO / RF | 8705 _ _ _ 120C7 | | | 21.75 | 21.75 | 21.75 | 22.00 | 16.80 | 10.77 | 10.76 | 14.00 | 2.00 | 620 |
| 12 (300) ASME - 900 , SO / RF | 8705 _ _ _ 120C9 | | | 25.15 | 25.15 | 25.15 | 24.00 | 16.80 | 10.77 | 10.76 | 14.00 | 3.13 | 907 |
| 14 (300) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 140.7 | | | 25.44 | 25.44 | 25.44 | 23.75 | 18.92 | 11.83 | 11.82 | 15.00 | 2.00 | 780 |
| 14 (350) ASME - 600 FULL, SO / RF | 8705 _ _ _ 140C7 | | | 25.41 | 25.41 | 25.41 | 23.75 | 18.92 | 11.83 | 11.82 | 15.25 | 2.00 | 771 |
| 16 (350) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 160.7 | | | 28.94 | 28.94 | 28.94 | 27.00 | 20.94 | 12.84 | 12.83 | 17.00 | 3.13 | 1108 |
| 16 (400) ASME - 600 FULL, SO / RF | 8705 _ _ _ 160C7 | | | 28.91 | 28.91 | 28.91 | 27.00 | 20.94 | 12.84 | 12.83 | 17.50 | 3.13 | 1100 |
| 18 (400) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 180.7 | | | 32.42 | 32.42 | 32.42 | 29.25 | 23.46 | 14.10 | 14.09 | 19.38 | 3.13 | 1415 |
| 18 (450) ASME - 600 FULL, SO / RF | 8705 _ _ _ 180C7 | | | 32.39 | 32.39 | 32.39 | 29.25 | 23.46 | 14.10 | 14.09 | 20.00 | 3.13 | 1405 |
| 20 (450) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 200.7 | | | 36.55 | 36.55 | 36.55 | 32.00 | 25.48 | 15.11 | 15.10 | 21.00 | 3.13 | 1839 |
| 20 (500) ASME - 600 FULL, SO / RF | 8705 _ _ _ 200C7 | | | 36.52 | 36.52 | 36.52 | 32.00 | 25.48 | 15.11 | 15.10 | 22.00 | 3.13 | 1822 |
| 24 (500) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 240.7 | | | 41.05 | 41.05 | 41.05 | 37.00 | 30.03 | 17.39 | 17.38 | 25.00 | 3.13 | 2724 |
| 24 (600) ASME - 600 FULL, SO / RF | 8705 _ _ _ 240C7 | | | 41.02 | 41.02 | 41.02 | 37.00 | 30.03 | 17.39 | 17.38 | 26.00 | 3.13 | 2692 |

Table 115: 8705-M Flanged Sensor DN 15mm to 600mm slip-on flange—high pressure (P ≤ Class 900)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | OVERALL LENGTH | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|-------------------------------------|---|--------------------|--------------------|------------------------|-----------------------|--------------------|---------------------|-------------------|---------------------|---------|-------------------------------|-----------------------------------|--------------------------------|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 600 DERAT., SO / RF | 8705 - - - 005C6 | 213 | 213 | 213 | 215 | 213 | 95 | 114 | 112 | 117 | 35 | | 5 |
| 0.5 (15) ASME - 600 FULL, SO / RF | 8705 - - - 005C7 | | 213 | 209 | 209 | 209 | 95 | 114 | 112 | 117 | 35 | | 5 |
| 1 (25) ASME - 900 , SO / RTJ | 8705 - - - 010_9 | | | 242 | 242 | 242 | 149 | 114 | 112 | 117 | 38 | 43 | 11 |
| 1 (25) ASME - 600 FULL, SO / RF | 8705 - - - 010C7 | | | 217 | 217 | 217 | 124 | 114 | 112 | 117 | 41 | | 7 |
| 1 (25) ASME - 900 , SO / RF | 8705 - - - 010C9 | | | 241 | 241 | 241 | 149 | 114 | 112 | 117 | 41 | 43 | 11 |
| 1.5 (40) ASME - 600 FULL, SO / RF | 8705 - - - 015C7 | | | 214 | 214 | 214 | 155 | 132 | 122 | 126 | 64 | | 11 |
| 1.5 (40) ASME - 900 , SO / RF | 8705 - - - 015C9 | | | 241 | 241 | 241 | 178 | 132 | 122 | 126 | 64 | 43 | 16 |
| 2 (50) ASME - 600 FULL, SO / RF | 8705 - - - 020C7 | | | 218 | 218 | 218 | 165 | 132 | 122 | 126 | 83 | | 12 |
| 2 (50) ASME - 900 , SO / RF | 8705 - - - 020C9 | | | 260 | 260 | 260 | 216 | 132 | 122 | 126 | 83 | 43 | 26 |
| 2.5 (65) ASME - 600 FULL, SO / RF | 8705 - - - 025C7 | | | 219 | | | 191 | 160 | 136 | 140 | 95 | | 19 |
| 2.5 (65) ASME - 900 , SO / RF | 8705 - - - 025C9 | | | 260 | | | 244 | 160 | 136 | 140 | 95 | 43 | 37 |
| 3 (65) ASME - 600 FULL, SO / RTJ | 8705 - - - 030_7 | | | 310 | 310 | 310 | 210 | 183 | 148 | 152 | 102 | | 24 |
| 3 (65) ASME - 900 , SO / RTJ | 8705 - - - 030_9 | | | 326 | 326 | 326 | 241 | 183 | 148 | 152 | 100 | | 34 |
| 3 (80) ASME - 600 FULL, SO / RF | 8705 - - - 030C7 | | | 309 | 309 | 309 | 210 | 183 | 148 | 152 | 118 | 43 | 24 |
| 3 (80) ASME - 900 , SO / RF | 8705 - - - 030C9 | | | 325 | 325 | 325 | 241 | 183 | 148 | 152 | 118 | 43 | 34 |
| 4 (80) ASME - 600 FULL, SO / RTJ | 8705 - - - 040_7 | | | 320 | 320 | 320 | 273 | 201 | 157 | 160 | 125 | 43 | 42 |
| 4 (80) ASME - 900 , SO / RTJ | 8705 - - - 040_9 | | | 353 | 353 | 353 | 292 | 201 | 157 | 160 | 125 | 51 | 56 |
| 4 (100) ASME - 600 FULL, SO / RF | 8705 - - - 040C7 | | | 319 | 319 | 319 | 273 | 201 | 157 | 160 | 148 | 43 | 42 |
| 4 (100) ASME - 900 , SO / RF | 8705 - - - 040C9 | | | 352 | 352 | 352 | 292 | 201 | 157 | 160 | 148 | 51 | 56 |
| 5 (125) ASME - 600 FULL, SO / RF | 8705 - - - 050C7 | | | 325 | | | 330 | 244 | 178 | 182 | 176 | 43 | 71 |
| 5 (125) ASME - 900 , SO / RF | 8705 - - - 050C9 | | | 352 | | | 349 | 244 | 178 | 182 | 176 | 43 | 91 |
| 6 (125) ASME - 600 FULL, SO / RTJ | 8705 - - - 060_7 | | | 396 | 396 | 396 | 356 | 253 | 185 | 187 | 181 | 43 | 87 |
| 6 (200) ASME - 900 , SO / RTJ | 8705 - - - 060_9 | | | 447 | 447 | 447 | 381 | 253 | 185 | 187 | 181 | 51 | 115 |
| 6 (150) ASME - 600 FULL, SO / RF | 8705 - - - 060C7 | | | 353 | 353 | 353 | 356 | 253 | 185 | 187 | 203 | 43 | 86 |
| 6 (150) ASME - 900 , SO / RF | 8705 - - - 060C9 | | | 446 | 446 | 446 | 381 | 253 | 185 | 187 | 203 | 51 | 115 |
| 8 (150) ASME - 600 FULL, SO / RTJ | 8705 - - - 080_7 | | | 447 | 447 | 447 | 419 | 303 | 210 | 211 | 238 | 43 | 135 |
| 8 (150) ASME - 900 , SO / RTJ | 8705 - - - 080_9 | | | 523 | 523 | 523 | 470 | 303 | 210 | 211 | 232 | 80 | 202 |
| 8 (200) ASME - 600 FULL, SO / RF | 8705 - - - 080C7 | | | 417 | 417 | 417 | 419 | 303 | 210 | 211 | 254 | 43 | 132 |
| 8 (200) ASME - 900 , SO / RF | 8705 - - - 080C9 | | | 523 | 523 | 523 | 470 | 303 | 210 | 211 | 254 | 80 | 202 |
| 10 (200) ASME - 600 FULL, SO / RTJ | 8705 - - - 100_7 | | | 485 | 485 | 485 | 508 | 372 | 246 | 246 | 292 | 51 | 218 |
| 10 (200) ASME - 900 , SO / RTJ | 8705 - - - 100_9 | | | 548 | 548 | 548 | 546 | 372 | 246 | 246 | 286 | 80 | 297 |
| 10 (250) ASME - 600 FULL, SO / RF | 8705 - - - 100C7 | | | 484 | 484 | 484 | 508 | 372 | 246 | 246 | 305 | 51 | 216 |
| 10 (250) ASME - 900 , SO / RF | 8705 - - - 100C9 | | | 547 | 547 | 547 | 546 | 372 | 246 | 246 | 305 | 80 | 295 |
| 12 (250) ASME - 600 FULL, SO / RTJ | 8705 - - - 120_7 | | | 553 | 553 | 553 | 559 | 427 | 274 | 273 | 349 | 51 | 288 |
| 12 (250) ASME - 900 , SO / RTJ | 8705 - - - 120_9 | | | 640 | 640 | 640 | 610 | 427 | 274 | 273 | 343 | 80 | 415 |
| 12 (300) ASME - 600 FULL, SO / RF | 8705 - - - 120C7 | | | 552 | 552 | 552 | 559 | 427 | 274 | 273 | 356 | 51 | 281 |
| 12 (300) ASME - 900 , SO / RF | 8705 - - - 120C9 | | | 639 | 639 | 639 | 610 | 427 | 274 | 273 | 356 | 80 | 412 |
| 14 (300) ASME - 600 FULL, SO / RTJ | 8705 - - - 140_7 | | | 646 | 646 | 646 | 603 | 481 | 300 | 300 | 381 | 51 | 354 |
| 14 (350) ASME - 600 FULL, SO / RF | 8705 - - - 140C7 | | | 645 | 645 | 645 | 603 | 481 | 300 | 300 | 387 | 51 | 350 |
| 16 (350) ASME - 600 FULL, SO / RTJ | 8705 - - - 160_7 | | | 735 | 735 | 735 | 686 | 532 | 326 | 326 | 432 | 80 | 503 |
| 16 (400) ASME - 600 FULL, SO / RF | 8705 - - - 160C7 | | | 734 | 734 | 734 | 686 | 532 | 326 | 326 | 445 | 80 | 499 |
| 18 (400) ASME - 600 FULL, SO / RTJ | 8705 - - - 180_7 | | | 823 | 823 | 823 | 743 | 596 | 358 | 358 | 492 | 80 | 642 |
| 18 (450) ASME - 600 FULL, SO / RF | 8705 - - - 180C7 | | | 823 | 823 | 823 | 743 | 596 | 358 | 358 | 508 | 80 | 637 |
| 20 (450) ASME - 600 FULL, SO / RTJ | 8705 - - - 200_7 | | | 928 | 928 | 928 | 813 | 647 | 384 | 384 | 533 | 80 | 834 |
| 20 (500) ASME - 600 FULL, SO / RF | 8705 - - - 200C7 | | | 928 | 928 | 928 | 813 | 647 | 384 | 384 | 559 | 80 | 826 |
| 24 (500) ASME - 600 FULL, SO / RTJ | 8705 - - - 240_7 | | | 1043 | 1043 | 1043 | 940 | 763 | 442 | 441 | 635 | 80 | 1236 |
| 24 (600) ASME - 600 FULL, SO / RF | 8705 - - - 240C7 | | | 1042 | 1042 | 1042 | 940 | 763 | 442 | 441 | 660 | 80 | 1221 |

Figure 15: 8705-M Flanged Sensor 1-in. to 24-in. (DN 25mm to 600mm) weld neck flange—(P ≤ Class 2500)

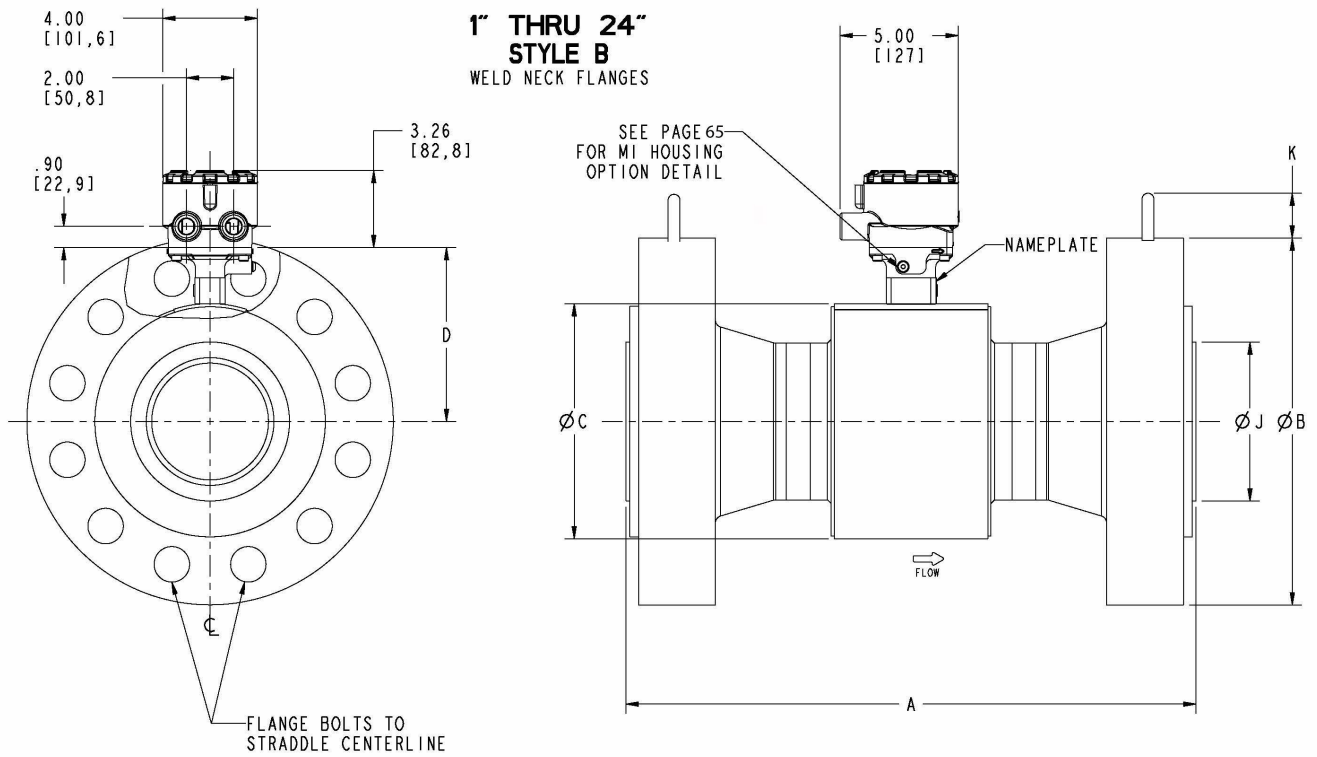


Table 116: 8705-M Flanged Sensor 1-in. to 5-in. weld neck flange—high pressure (P ≤ Class 2500)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|------------------------------------|---|------------------------|-----------------------|-----------------|---------------------|-------------------|---------------------|---------|-------------------------------|-----------------------------------|----------------------------------|
| | | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 1 (25) ASME - 600 FULL, WN / RF | 8705 - - - 010D7 | 11.54 | 11.54 | 11.54 | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | | 17 |
| 1 (25) ASME - 900 , WN / RF | 8705 - - - 010D9 | 12.51 | 12.51 | 12.51 | 5.88 | 4.50 | 4.41 | 4.61 | 2.00 | 1.70 | 25 |
| 1 (25) ASME -1500 , WN / RF | 8705 - - - 010DM | 12.87 | 12.87 | 12.87 | 5.88 | 4.50 | 4.41 | 4.61 | 1.63 | 1.70 | 25 |
| 1 (25) ASME -2500 , WN / RF | 8705 - - - 010DN | 14.29 | 14.29 | 14.29 | 6.25 | 4.50 | 4.41 | 4.61 | 1.63 | 1.70 | 34 |
| 1 (25) ASME - 600 FULL, WN / RTJ | 8705 - - - 010J7 | 11.57 | 11.57 | 11.57 | 4.88 | 4.50 | 4.41 | 4.61 | 1.31 | | 17 |
| 1 (25) ASME - 900 , WN / RTJ | 8705 - - - 010J9 | 12.54 | 12.54 | 12.54 | 5.88 | 4.50 | 4.41 | 4.61 | 1.31 | 1.70 | 26 |
| 1 (25) ASME -1500 , WN / RTJ | 8705 - - - 010JM | 12.90 | 12.90 | 12.90 | 5.88 | 4.50 | 4.41 | 4.61 | 1.26 | 1.70 | 26 |
| 1.5 (40) ASME - 600 FULL, WN / RF | 8705 - - - 015D7 | 11.56 | 11.56 | 11.56 | 6.12 | 5.21 | 4.82 | 4.97 | 2.50 | | 26 |
| 1.5 (40) ASME - 900 , WN / RF | 8705 - - - 015D9 | 12.65 | 12.65 | 12.65 | 7.00 | 5.21 | 4.82 | 4.97 | 2.50 | 1.70 | 38 |
| 1.5 (40) ASME -1500 , WN / RF | 8705 - - - 015DM | 13.09 | 13.09 | 13.09 | 7.00 | 5.21 | 4.82 | 4.97 | 2.50 | 1.70 | 39 |
| 1.5 (40) ASME -2500 , WN / RF | 8705 - - - 015DN | 15.51 | 15.51 | 15.51 | 8.00 | 5.21 | 4.82 | 4.97 | 2.38 | 1.70 | 66 |
| 1.5 (40) ASME - 600 FULL, WN / RTJ | 8705 - - - 015J7 | 11.59 | 11.59 | 11.59 | 6.12 | 5.21 | 4.82 | 4.97 | 2.00 | | 27 |
| 1.5 (40) ASME - 900 , WN / RTJ | 8705 - - - 015J9 | 12.68 | 12.68 | 12.68 | 7.00 | 5.21 | 4.82 | 4.97 | 2.00 | 1.70 | 38 |
| 1.5 (40) ASME -1500 , WN / RTJ | 8705 - - - 015JM | 13.12 | 13.12 | 13.12 | 7.00 | 5.21 | 4.82 | 4.97 | 1.92 | 1.70 | 39 |
| 1.5 (40) ASME -2500 , WN / RTJ | 8705 - - - 015JN | 15.66 | 15.66 | 15.66 | 8.00 | 5.21 | 4.82 | 4.97 | 1.84 | 1.70 | 68 |
| 2 (50) ASME - 600 FULL, WN / RF | 8705 - - - 020D7 | 11.83 | 11.83 | 11.83 | 6.50 | 5.21 | 4.82 | 4.97 | 3.25 | | 32 |
| 2 (50) ASME - 900 , WN / RF | 8705 - - - 020D9 | 14.26 | 14.26 | 14.26 | 8.50 | 5.21 | 4.82 | 4.97 | 3.25 | 1.70 | 66 |
| 2 (50) ASME -1500 , WN / RF | 8705 - - - 020DM | 14.82 | 14.82 | 14.82 | 8.50 | 5.21 | 4.82 | 4.97 | 3.25 | 1.70 | 69 |
| 2 (50) ASME -2500 , WN / RF | 8705 - - - 020DN | 16.86 | 16.86 | 16.86 | 9.25 | 5.21 | 4.82 | 4.97 | 3.12 | 1.70 | 96 |
| 2 (50) ASME - 600 FULL, WN / RTJ | 8705 - - - 020J7 | 11.99 | 11.99 | 11.99 | 6.50 | 5.21 | 4.82 | 4.97 | 2.31 | | 32 |
| 2 (50) ASME - 900 , WN / RTJ | 8705 - - - 020J9 | 14.42 | 14.42 | 14.42 | 8.50 | 5.21 | 4.82 | 4.97 | 2.62 | 1.70 | 67 |
| 2 (50) ASME -1500 , WN / RTJ | 8705 - - - 020JM | 14.92 | 14.92 | 14.92 | 8.50 | 5.21 | 4.82 | 4.97 | 2.34 | 1.70 | 70 |
| 2 (50) ASME -2500 , WN / RTJ | 8705 - - - 020JN | 17.01 | 17.01 | 17.01 | 9.25 | 5.21 | 4.82 | 4.97 | 2.59 | 1.70 | 98 |
| 2.5 (60) ASME -1500 , WN / RF | 8705 - - - 025DM | 16.80 | 16.80 | 16.80 | 9.62 | 6.31 | 5.37 | 5.52 | 3.70 | 1.70 | 93 |
| 2.5 (60) ASME -2500 , WN / RF | 8705 - - - 025DN | 19.70 | 19.70 | 19.70 | 10.50 | 6.31 | 5.37 | 5.52 | 3.50 | 1.70 | 136 |
| 2.5 (60) ASME -1500 , WN / RTJ | 8705 - - - 025JM | 16.91 | 16.91 | 16.91 | 9.62 | 6.31 | 5.37 | 5.52 | 3.10 | 1.70 | 88 |
| 2.5 (60) ASME -2500 , WN / RTJ | 8705 - - - 025JN | 19.94 | 19.94 | 19.94 | 10.50 | 6.31 | 5.37 | 5.52 | 2.80 | 1.70 | 132 |
| 3 (80) ASME - 600 FULL, WN / RF | 8705 - - - 030D7 | 12.78 | 12.78 | 12.78 | 8.25 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 59 |
| 3 (80) ASME - 900 , WN / RF | 8705 - - - 030D9 | 14.38 | 14.38 | 14.38 | 9.50 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 85 |
| 3 (80) ASME -1500 , WN / RF | 8705 - - - 030DM | 16.27 | 16.27 | 16.27 | 10.50 | 7.21 | 5.82 | 5.97 | 4.33 | 1.70 | 125 |
| 3 (80) ASME -2500 , WN / RF | 8705 - - - 030DN | 20.42 | 20.42 | 20.42 | 12.00 | 7.21 | 5.82 | 5.97 | 4.15 | 1.70 | 211 |
| 3 (80) ASME - 600 FULL, WN / RTJ | 8705 - - - 030J7 | 12.94 | 12.94 | 12.94 | 8.25 | 7.21 | 5.82 | 5.97 | 4.00 | 1.70 | 60 |
| 3 (80) ASME - 900 , WN / RTJ | 8705 - - - 030J9 | 14.54 | 14.54 | 14.54 | 9.50 | 7.21 | 5.82 | 5.97 | 3.94 | 1.70 | 86 |
| 3 (80) ASME -1500 , WN / RTJ | 8705 - - - 030JM | 16.42 | 16.42 | 16.42 | 10.50 | 7.21 | 5.82 | 5.97 | 3.97 | 1.70 | 127 |
| 3 (80) ASME -2500 , WN / RTJ | 8705 - - - 030JN | 20.70 | 20.70 | 20.70 | 12.00 | 7.21 | 5.82 | 5.97 | 3.41 | 1.70 | 214 |
| 4 (100) ASME - 600 FULL, WN / RF | 8705 - - - 040D7 | 15.57 | 15.57 | 15.57 | 10.75 | 7.91 | 6.17 | 6.32 | 5.81 | 1.70 | 108 |
| 4 (100) ASME - 900 , WN / RF | 8705 - - - 040D9 | 16.81 | 16.81 | 16.81 | 11.50 | 7.91 | 6.17 | 6.32 | 5.81 | 2.00 | 140 |
| 4 (100) ASME -1500 , WN / RF | 8705 - - - 040DM | 18.18 | 18.18 | 18.18 | 12.25 | 7.91 | 6.17 | 6.32 | 5.71 | 2.00 | 188 |
| 4 (100) ASME -2500 , WN / RF | 8705 - - - 040DN | 23.71 | 23.71 | 23.71 | 14.00 | 7.91 | 6.17 | 6.32 | 5.54 | 2.00 | 331 |
| 4 (100) ASME - 600 FULL, WN / RTJ | 8705 - - - 040J7 | 15.73 | 15.73 | 15.73 | 10.75 | 7.91 | 6.17 | 6.32 | 4.94 | 1.70 | 109 |
| 4 (100) ASME - 900 , WN / RTJ | 8705 - - - 040J9 | 16.97 | 16.97 | 16.97 | 11.50 | 7.91 | 6.17 | 6.32 | 4.94 | 2.00 | 141 |
| 4 (100) ASME -1500 , WN / RTJ | 8705 - - - 040JM | 18.33 | 18.33 | 18.33 | 12.25 | 7.91 | 6.17 | 6.32 | 5.54 | 2.00 | 191 |
| 4 (100) ASME -2500 , WN / RTJ | 8705 - - - 040JN | 24.12 | 24.12 | 24.12 | 14.00 | 7.91 | 6.17 | 6.32 | 4.38 | 2.00 | 337 |
| 5 (120) ASME -1500 , WN / RF | 8705 - - - 050DM | 22.79 | 22.79 | 22.79 | 14.75 | 9.61 | 7.02 | 7.17 | 6.35 | 2.00 | 331 |
| 5 (120) ASME -2500 , WN / RF | 8705 - - - 050DN | 28.45 | 28.45 | 28.45 | 16.50 | 9.61 | 7.02 | 7.17 | 6.40 | 2.00 | 509 |
| 5 (120) ASME -1500 , WN / RTJ | 8705 - - - 050JM | 22.94 | 22.94 | 22.94 | 14.75 | 9.61 | 7.02 | 7.17 | 6.20 | 2.00 | 325 |
| 5 (120) ASME -2500 , WN / RTJ | 8705 - - - 050JN | 28.98 | 28.98 | 28.98 | 16.50 | 9.61 | 7.02 | 7.17 | 5.30 | 2.00 | 502 |

Table 117: 8705-M Flanged Sensor 6-in. to 24-in. weld neck flange—high pressure (P ≤ Class 2500)—Inches


| SIZE, DESCRIPTION | MODEL NUMBER  | DIM | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|------------------------------------|---|-----------------|----------------|-------------|---------------------|-------------------|---------------------|---------|-------------------------------|-----------------------------------|----------------------------------|
| | | "A" NEOPRENE | "A" LINATEX | "A" POLY | | | STYLE A | STYLE B | | | |
| 6 (150) ASME - 600 FULL, WN / RF | 8705 _ _ _ 060D7 | 18.73 | 18.73 | 18.73 | 14.00 | 9.98 | 7.30 | 7.35 | 8.00 | 1.70 | 230 |
| 6 (150) ASME - 900 , WN / RF | 8705 _ _ _ 060D9 | 20.58 | 20.58 | 20.58 | 15.00 | 9.98 | 7.30 | 7.35 | 8.00 | 2.00 | 296 |
| 6 (150) ASME -1500 , WN / RF | 8705 _ _ _ 060DM | 23.84 | 23.84 | 23.84 | 15.50 | 9.98 | 7.30 | 7.35 | 7.70 | 2.00 | 428 |
| 6 (150) ASME -2500 , WN / RF | 8705 _ _ _ 060DN | 31.79 | 31.79 | 31.79 | 19.00 | 9.98 | 7.30 | 7.35 | 7.30 | 2.00 | 848 |
| 6 (150) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 060J7 | 18.89 | 18.89 | 18.89 | 14.00 | 9.98 | 7.30 | 7.35 | 7.12 | 1.70 | 232 |
| 6 (150) ASME - 900 , WN / RTJ | 8705 _ _ _ 060J9 | 20.74 | 20.74 | 20.74 | 15.00 | 9.98 | 7.30 | 7.35 | 7.12 | 2.00 | 299 |
| 6 (150) ASME -1500 , WN / RTJ | 8705 _ _ _ 060JM | 24.12 | 24.12 | 24.12 | 15.50 | 9.98 | 7.30 | 7.35 | 6.73 | 2.00 | 433 |
| 6 (150) ASME -2500 , WN / RTJ | 8705 _ _ _ 060JN | 32.32 | 32.32 | 32.32 | 19.00 | 9.98 | 7.30 | 7.35 | 6.66 | 2.00 | 863 |
| 8 (200) ASME - 600 FULL, WN / RF | 8705 _ _ _ 080D7 | 21.59 | 21.59 | 21.59 | 16.50 | 11.92 | 8.27 | 8.32 | 10.00 | 1.70 | 355 |
| 8 (200) ASME - 900 , WN / RF | 8705 _ _ _ 080D9 | 24.09 | 24.09 | 24.09 | 18.50 | 11.92 | 8.27 | 8.32 | 10.00 | 3.13 | 521 |
| 8 (200) ASME -1500 , WN / RF | 8705 _ _ _ 080DM | 28.70 | 28.70 | 28.70 | 19.00 | 11.92 | 8.27 | 8.32 | 9.76 | 3.13 | 755 |
| 8 (200) ASME -2500 , WN / RF | 8705 _ _ _ 080DN | 36.88 | 36.88 | 36.88 | 21.75 | 11.92 | 8.27 | 8.32 | 9.20 | 3.13 | 1352 |
| 8 (200) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 080J7 | 21.75 | 21.75 | 21.75 | 16.50 | 11.92 | 8.27 | 8.32 | 9.37 | 1.70 | 359 |
| 8 (200) ASME - 900 , WN / RTJ | 8705 _ _ _ 080J9 | 24.25 | 24.25 | 24.25 | 18.50 | 11.92 | 8.27 | 8.32 | 9.13 | 3.13 | 525 |
| 8 (200) ASME -1500 , WN / RTJ | 8705 _ _ _ 080JM | 29.11 | 29.11 | 29.11 | 19.00 | 11.92 | 8.27 | 8.32 | 8.66 | 3.13 | 767 |
| 8 (200) ASME -2500 , WN / RTJ | 8705 _ _ _ 080JN | 37.53 | 37.53 | 37.53 | 21.75 | 11.92 | 8.27 | 8.32 | 8.28 | 3.13 | 1377 |
| 10 (250) ASME - 600 FULL, WN / RF | 8705 _ _ _ 100D7 | 23.34 | 23.34 | 23.34 | 20.00 | 14.64 | 9.69 | 9.68 | 12.00 | 2.00 | 580 |
| 10 (250) ASME - 900 , WN / RF | 8705 _ _ _ 100D9 | 26.12 | 26.12 | 26.12 | 21.50 | 14.64 | 9.69 | 9.68 | 12.00 | 3.13 | 797 |
| 10 (250) ASME -1500 , WN / RF | 8705 _ _ _ 100DM | 32.03 | 32.03 | 32.03 | 23.00 | 14.64 | 9.69 | 9.68 | 11.50 | 3.13 | 1317 |
| 10 (250) ASME -2500 , WN / RF | 8705 _ _ _ 100DN | 44.95 | 44.95 | 44.95 | 26.50 | 14.64 | 9.69 | 9.68 | 10.65 | 3.13 | 2542 |
| 10 (250) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 100J7 | 23.50 | 23.50 | 23.50 | 20.00 | 14.64 | 9.69 | 9.68 | 11.50 | 2.00 | 585 |
| 10 (250) ASME - 900 , WN / RTJ | 8705 _ _ _ 100J9 | 26.28 | 26.28 | 26.28 | 21.50 | 14.64 | 9.69 | 9.68 | 11.25 | 3.13 | 803 |
| 10 (250) ASME -1500 , WN / RTJ | 8705 _ _ _ 100JM | 32.44 | 32.44 | 32.44 | 23.00 | 14.64 | 9.69 | 9.68 | 10.78 | 3.13 | 1333 |
| 10 (250) ASME -2500 , WN / RTJ | 8705 _ _ _ 100JN | 45.86 | 45.86 | 45.86 | 26.50 | 14.64 | 9.69 | 9.68 | 9.94 | 3.13 | 2597 |
| 12 (300) ASME - 600 FULL, WN / RF | 8705 _ _ _ 120D7 | 26.59 | 26.59 | 26.59 | 22.00 | 16.50 | 10.77 | 10.61 | 14.00 | 2.00 | 759 |
| 12 (300) ASME - 900 , WN / RF | 8705 _ _ _ 120D9 | 30.33 | 30.33 | 30.33 | 24.00 | 16.50 | 10.77 | 10.61 | 14.00 | 3.13 | 1112 |
| 12 (300) ASME -1500 , WN / RF | 8705 _ _ _ 120DM | 37.11 | 37.11 | 37.11 | 26.50 | 16.50 | 10.77 | 10.61 | 13.18 | 3.13 | 2032 |
| 12 (300) ASME -2500 , WN / RF | 8705 _ _ _ 120DN | 51.50 | 51.50 | 51.50 | 30.00 | 16.50 | 10.77 | 10.61 | 12.20 | 3.13 | 3860 |
| 12 (300) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 120J7 | 26.75 | 26.75 | 26.75 | 22.00 | 16.50 | 10.77 | 10.61 | 13.75 | 2.00 | 767 |
| 12 (300) ASME - 900 , WN / RTJ | 8705 _ _ _ 120J9 | 30.49 | 30.49 | 30.49 | 24.00 | 16.50 | 10.77 | 10.61 | 13.50 | 3.13 | 1120 |
| 12 (300) ASME -1500 , WN / RTJ | 8705 _ _ _ 120JM | 37.76 | 37.76 | 37.76 | 26.50 | 16.50 | 10.77 | 10.61 | 12.28 | 3.13 | 2065 |
| 12 (300) ASME -2500 , WN / RTJ | 8705 _ _ _ 120JN | 52.41 | 52.41 | 52.41 | 30.00 | 16.50 | 10.77 | 10.61 | 12.06 | 3.13 | 3938 |
| 14 (350) ASME - 600 FULL, WN / RF | 8705 _ _ _ 140D7 | 29.95 | 29.95 | 29.95 | 23.75 | 18.92 | 11.83 | 11.82 | 15.25 | 2.00 | 940 |
| 14 (350) ASME -1500 , WN / RF | 8705 _ _ _ 140DM | 40.82 | 40.82 | 40.82 | 29.50 | 18.92 | 11.83 | 11.82 | 14.06 | 3.13 | 2662 |
| 14 (350) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 140J7 | 30.11 | 30.11 | 30.11 | 23.75 | 18.92 | 11.83 | 11.82 | 15.00 | 2.00 | 951 |
| 16 (400) ASME - 600 FULL, WN / RF | 8705 _ _ _ 160D7 | 33.23 | 33.23 | 33.23 | 27.00 | 20.94 | 12.84 | 12.83 | 17.50 | 3.13 | 1277 |
| 16 (400) ASME -1500 , WN / RF | 8705 _ _ _ 160DM | 43.96 | 43.96 | 43.96 | 32.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 3485 |
| 16 (400) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 160J7 | 33.39 | 33.39 | 33.39 | 27.00 | 20.94 | 12.84 | 12.83 | 17.00 | 3.13 | 1287 |
| 18 (450) ASME - 600 FULL, WN / RF | 8705 _ _ _ 180D7 | 34.89 | 34.89 | 34.89 | 29.25 | 23.46 | 14.10 | 14.09 | 20.00 | 3.13 | 1534 |
| 18 (450) ASME -1500 , WN / RF | 8705 _ _ _ 180DM | 46.23 | 46.23 | 46.23 | 36.00 | 23.46 | 14.10 | 14.09 | 21.00 | 3.38 | 4416 |
| 18 (450) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 180J7 | 35.05 | 35.05 | 35.05 | 29.25 | 23.46 | 14.10 | 14.09 | 19.38 | 3.13 | 1545 |
| 20 (500) ASME - 600 FULL, WN / RF | 8705 _ _ _ 200D7 | 37.93 | 37.93 | 37.93 | 32.00 | 25.48 | 15.11 | 15.10 | 22.00 | 3.13 | 1895 |
| 20 (500) ASME -1500 , WN / RF | 8705 _ _ _ 200DM | 50.81 | 50.81 | 50.81 | 38.75 | 25.48 | 15.11 | 15.10 | 21.10 | 3.38 | 5479 |
| 20 (500) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 200J7 | 38.21 | 38.21 | 38.21 | 32.00 | 25.48 | 15.11 | 15.10 | 21.00 | 3.13 | 1917 |
| 24 (600) ASME - 600 FULL, WN / RF | 8705 _ _ _ 240D7 | 41.99 | 41.99 | 41.99 | 37.00 | 30.03 | 17.39 | 17.38 | 26.00 | 3.13 | 2848 |
| 24 (600) ASME -1500 , WN / RF | 8705 _ _ _ 240DM | 57.94 | 57.94 | 57.94 | 46.00 | 30.03 | 17.39 | 17.38 | 25.50 | 3.38 | 8822 |
| 24 (600) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 240J7 | 42.40 | 42.40 | 42.40 | 37.00 | 30.03 | 17.39 | 17.38 | 25.00 | 3.13 | 2890 |

Table 118: 8705-M Flanged Sensor DN 25mm to 120mm weld neck flange—high pressure (P ≤ Class 2500)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|------------------------------------|---|------------------------|-----------------------|-----------------|---------------------|-------------------|---------------------|---------|-------------------------------|-----------------------------------|--------------------------------|
| | | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 1 (25) ASME - 600 FULL, WN / RF | 8705 _ _ _ 010D7 | 293 | 293 | 293 | 124 | 114 | 112 | 117 | 51 | | 8 |
| 1 (25) ASME - 900 , WN / RF | 8705 _ _ _ 010D9 | 318 | 318 | 318 | 149 | 114 | 112 | 117 | 51 | 43 | 12 |
| 1 (25) ASME -1500 , WN / RF | 8705 _ _ _ 010DM | 327 | 327 | 327 | 149 | 114 | 112 | 117 | 41 | 43 | 11 |
| 1 (25) ASME -2500 , WN / RF | 8705 _ _ _ 010DN | 363 | 363 | 363 | 159 | 114 | 112 | 117 | 41 | 43 | 15 |
| 1 (25) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 010J7 | 294 | 294 | 294 | 124 | 114 | 112 | 117 | 33 | | 8 |
| 1 (25) ASME - 900 , WN / RTJ | 8705 _ _ _ 010J9 | 319 | 319 | 319 | 149 | 114 | 112 | 117 | 33 | 43 | 12 |
| 1 (25) ASME -1500 , WN / RTJ | 8705 _ _ _ 010JM | 328 | 328 | 328 | 149 | 114 | 112 | 117 | 32 | 43 | 12 |
| 1.5 (40) ASME - 600 FULL, WN / RF | 8705 _ _ _ 015D7 | 294 | 294 | 294 | 155 | 132 | 122 | 126 | 64 | | 12 |
| 1.5 (40) ASME - 900 , WN / RF | 8705 _ _ _ 015D9 | 321 | 321 | 321 | 178 | 132 | 122 | 126 | 64 | 43 | 17 |
| 1.5 (40) ASME -1500 , WN / RF | 8705 _ _ _ 015DM | 332 | 332 | 332 | 178 | 132 | 122 | 126 | 64 | 43 | 18 |
| 1.5 (40) ASME -2500 , WN / RF | 8705 _ _ _ 015DN | 394 | 394 | 394 | 203 | 132 | 122 | 126 | 60 | 43 | 30 |
| 1.5 (40) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 015J7 | 294 | 294 | 294 | 155 | 132 | 122 | 126 | 51 | | 12 |
| 1.5 (40) ASME - 900 , WN / RTJ | 8705 _ _ _ 015J9 | 322 | 322 | 322 | 178 | 132 | 122 | 126 | 51 | 43 | 17 |
| 1.5 (40) ASME -1500 , WN / RTJ | 8705 _ _ _ 015JM | 333 | 333 | 333 | 178 | 132 | 122 | 126 | 49 | 43 | 18 |
| 1.5 (40) ASME -2500 , WN / RTJ | 8705 _ _ _ 015JN | 398 | 398 | 398 | 203 | 132 | 122 | 126 | 47 | 43 | 31 |
| 2 (50) ASME - 600 FULL, WN / RF | 8705 _ _ _ 020D7 | 301 | 301 | 301 | 165 | 132 | 122 | 126 | 83 | | 14 |
| 2 (50) ASME - 900 , WN / RF | 8705 _ _ _ 020D9 | 362 | 362 | 362 | 216 | 132 | 122 | 126 | 83 | 43 | 30 |
| 2 (50) ASME -1500 , WN / RF | 8705 _ _ _ 020DM | 376 | 376 | 376 | 216 | 132 | 122 | 126 | 83 | 43 | 31 |
| 2 (50) ASME -2500 , WN / RF | 8705 _ _ _ 020DN | 428 | 428 | 428 | 235 | 132 | 122 | 126 | 79 | 43 | 43 |
| 2 (50) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 020J7 | 305 | 305 | 305 | 165 | 132 | 122 | 126 | 59 | | 15 |
| 2 (50) ASME - 900 , WN / RTJ | 8705 _ _ _ 020J9 | 366 | 366 | 366 | 216 | 132 | 122 | 126 | 67 | 43 | 30 |
| 2 (50) ASME -1500 , WN / RTJ | 8705 _ _ _ 020JM | 379 | 379 | 379 | 216 | 132 | 122 | 126 | 60 | 43 | 32 |
| 2 (50) ASME -2500 , WN / RTJ | 8705 _ _ _ 020JN | 432 | 432 | 432 | 235 | 132 | 122 | 126 | 66 | 43 | 44 |
| 2.5 (60) ASME -1500 , WN / RF | 8705 _ _ _ 025DM | 427 | 427 | 427 | 244 | 160 | 136 | 140 | 94 | 43 | 42 |
| 2.5 (60) ASME -2500 , WN / RF | 8705 _ _ _ 025DN | 500 | 500 | 500 | 267 | 160 | 136 | 140 | 89 | 43 | 62 |
| 2.5 (60) ASME -1500 , WN / RTJ | 8705 _ _ _ 025JM | 430 | 430 | 430 | 244 | 160 | 136 | 140 | 79 | 43 | 40 |
| 2.5 (60) ASME -2500 , WN / RTJ | 8705 _ _ _ 025JN | 506 | 506 | 506 | 267 | 160 | 136 | 140 | 71 | 43 | 60 |
| 3 (80) ASME - 600 FULL, WN / RF | 8705 _ _ _ 030D7 | 325 | 325 | 325 | 210 | 183 | 148 | 152 | 117 | 43 | 27 |
| 3 (80) ASME - 900 , WN / RF | 8705 _ _ _ 030D9 | 365 | 365 | 365 | 241 | 183 | 148 | 152 | 117 | 43 | 38 |
| 3 (80) ASME -1500 , WN / RF | 8705 _ _ _ 030DM | 413 | 413 | 413 | 267 | 183 | 148 | 152 | 110 | 43 | 57 |
| 3 (80) ASME -2500 , WN / RF | 8705 _ _ _ 030DN | 519 | 519 | 519 | 305 | 183 | 148 | 152 | 105 | 43 | 96 |
| 3 (80) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 030J7 | 329 | 329 | 329 | 210 | 183 | 148 | 152 | 102 | 43 | 27 |
| 3 (80) ASME - 900 , WN / RTJ | 8705 _ _ _ 030J9 | 369 | 369 | 369 | 241 | 183 | 148 | 152 | 100 | 43 | 39 |
| 3 (80) ASME -1500 , WN / RTJ | 8705 _ _ _ 030JM | 417 | 417 | 417 | 267 | 183 | 148 | 152 | 101 | 43 | 58 |
| 3 (80) ASME -2500 , WN / RTJ | 8705 _ _ _ 030JN | 526 | 526 | 526 | 305 | 183 | 148 | 152 | 87 | 43 | 97 |
| 4 (100) ASME - 600 FULL, WN / RF | 8705 _ _ _ 040D7 | 396 | 396 | 396 | 273 | 201 | 157 | 160 | 148 | 43 | 49 |
| 4 (100) ASME - 900 , WN / RF | 8705 _ _ _ 040D9 | 427 | 427 | 427 | 292 | 201 | 157 | 160 | 148 | 51 | 64 |
| 4 (100) ASME -1500 , WN / RF | 8705 _ _ _ 040DM | 462 | 462 | 462 | 311 | 201 | 157 | 160 | 145 | 51 | 85 |
| 4 (100) ASME -2500 , WN / RF | 8705 _ _ _ 040DN | 602 | 602 | 602 | 356 | 201 | 157 | 160 | 141 | 51 | 150 |
| 4 (100) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 040J7 | 400 | 400 | 400 | 273 | 201 | 157 | 160 | 125 | 43 | 49 |
| 4 (100) ASME - 900 , WN / RTJ | 8705 _ _ _ 040J9 | 431 | 431 | 431 | 292 | 201 | 157 | 160 | 125 | 51 | 64.1 |
| 4 (100) ASME -1500 , WN / RTJ | 8705 _ _ _ 040JM | 466 | 466 | 466 | 311 | 201 | 157 | 160 | 141 | 51 | 86.7 |
| 4 (100) ASME -2500 , WN / RTJ | 8705 _ _ _ 040JN | 613 | 613 | 613 | 356 | 201 | 157 | 160 | 111 | 51 | 153.1 |
| 5 (120) ASME -1500 , WN / RF | 8705 _ _ _ 050DM | 579 | 579 | 579 | 375 | 244 | 178 | 182 | 161 | 51 | 150.2 |
| 5 (120) ASME -2500 , WN / RF | 8705 _ _ _ 050DN | 723 | 723 | 723 | 419 | 244 | 178 | 182 | 163 | 51 | 231.0 |
| 5 (120) ASME -1500 , WN / RTJ | 8705 _ _ _ 050JM | 583 | 583 | 583 | 375 | 244 | 178 | 182 | 157 | 51 | 147.4 |
| 5 (120) ASME -2500 , WN / RTJ | 8705 _ _ _ 050JN | 736 | 736 | 736 | 419 | 244 | 178 | 182 | 135 | 51 | 227.6 |

Table 119: 8705-M Flanged Sensor (DN 150mm to 600mm) weld neck flange—high pressure (P ≤ Class 2500)—Millimeters


| SIZE, DESCRIPTION | MODEL NUMBER  | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL 10 TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|------------------------------------|---|------------------------|-----------------------|-----------------|---------------------|-------------------|---------------------|---------|-------------------------------|-----------------------------------|--------------------------------|
| | | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 6 (150) ASME - 600 FULL, WN / RF | 8705 _ _ _ 060D7 | 476 | 476 | 476 | 356 | 253 | 185 | 187 | 203 | 43 | 104 |
| 6 (150) ASME - 900 , WN / RF | 8705 _ _ _ 060D9 | 523 | 523 | 523 | 381 | 253 | 185 | 187 | 203 | 51 | 134 |
| 6 (150) ASME -1500 , WN / RF | 8705 _ _ _ 060DM | 605 | 605 | 605 | 394 | 253 | 185 | 187 | 196 | 51 | 194 |
| 6 (150) ASME -2500 , WN / RF | 8705 _ _ _ 060DN | 807 | 807 | 807 | 483 | 253 | 185 | 187 | 185 | 51 | 384 |
| 6 (150) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 060J7 | 480 | 480 | 480 | 356 | 253 | 185 | 187 | 181 | 43 | 105 |
| 6 (150) ASME - 900 , WN / RTJ | 8705 _ _ _ 060J9 | 527 | 527 | 527 | 381 | 253 | 185 | 187 | 181 | 51 | 135 |
| 6 (150) ASME -1500 , WN / RTJ | 8705 _ _ _ 060JM | 613 | 613 | 613 | 394 | 253 | 185 | 187 | 171 | 51 | 196 |
| 6 (150) ASME -2500 , WN / RTJ | 8705 _ _ _ 060JN | 821 | 821 | 821 | 483 | 253 | 185 | 187 | 169 | 51 | 392 |
| 8 (200) ASME - 600 FULL, WN / RF | 8705 _ _ _ 080D7 | 548 | 548 | 548 | 419 | 303 | 210 | 211 | 254 | 43 | 161 |
| 8 (200) ASME - 900 , WN / RF | 8705 _ _ _ 080D9 | 612 | 612 | 612 | 470 | 303 | 210 | 211 | 254 | 80 | 236 |
| 8 (200) ASME -1500 , WN / RF | 8705 _ _ _ 080DM | 729 | 729 | 729 | 483 | 303 | 210 | 211 | 248 | 80 | 342 |
| 8 (200) ASME -2500 , WN / RF | 8705 _ _ _ 080DN | 937 | 937 | 937 | 552 | 303 | 210 | 211 | 234 | 80 | 613 |
| 8 (200) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 080J7 | 552 | 552 | 552 | 419 | 303 | 210 | 211 | 238 | 43 | 163 |
| 8 (200) ASME - 900 , WN / RTJ | 8705 _ _ _ 080J9 | 616 | 616 | 616 | 470 | 303 | 210 | 211 | 232 | 80 | 238 |
| 8 (200) ASME -1500 , WN / RTJ | 8705 _ _ _ 080JM | 739 | 739 | 739 | 483 | 303 | 210 | 211 | 220 | 80 | 348 |
| 8 (200) ASME -2500 , WN / RTJ | 8705 _ _ _ 080JN | 953 | 953 | 953 | 552 | 303 | 210 | 211 | 210 | 80 | 625 |
| 10 (250) ASME - 600 FULL, WN / RF | 8705 _ _ _ 100D7 | 593 | 593 | 593 | 508 | 372 | 246 | 246 | 305 | 51 | 263 |
| 10 (250) ASME - 900 , WN / RF | 8705 _ _ _ 100D9 | 663 | 663 | 663 | 546 | 372 | 246 | 246 | 305 | 80 | 362 |
| 10 (250) ASME -1500 , WN / RF | 8705 _ _ _ 100DM | 813 | 813 | 813 | 584 | 372 | 246 | 246 | 292 | 80 | 597 |
| 10 (250) ASME -2500 , WN / RF | 8705 _ _ _ 100DN | 1142 | 1142 | 1142 | 673 | 372 | 246 | 246 | 271 | 80 | 1153 |
| 10 (250) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 100J7 | 597 | 597 | 597 | 508 | 372 | 246 | 246 | 292 | 51 | 265 |
| 10 (250) ASME - 900 , WN / RTJ | 8705 _ _ _ 100J9 | 668 | 668 | 668 | 546 | 372 | 246 | 246 | 286 | 80 | 364 |
| 10 (250) ASME -1500 , WN / RTJ | 8705 _ _ _ 100JM | 824 | 824 | 824 | 584 | 372 | 246 | 246 | 274 | 80 | 605 |
| 10 (250) ASME -2500 , WN / RTJ | 8705 _ _ _ 100JN | 1165 | 1165 | 1165 | 673 | 372 | 246 | 246 | 252 | 80 | 1178 |
| 12 (300) ASME - 600 FULL, WN / RF | 8705 _ _ _ 120D7 | 675 | 675 | 675 | 559 | 419 | 274 | 269 | 356 | 51 | 344 |
| 12 (300) ASME - 900 , WN / RF | 8705 _ _ _ 120D9 | 770 | 770 | 770 | 610 | 419 | 274 | 269 | 356 | 80 | 505 |
| 12 (300) ASME -1500 , WN / RF | 8705 _ _ _ 120DM | 942 | 942 | 942 | 673 | 419 | 274 | 269 | 335 | 80 | 922 |
| 12 (300) ASME -2500 , WN / RF | 8705 _ _ _ 120DN | 1308 | 1308 | 1308 | 762 | 419 | 274 | 269 | 310 | 80 | 1751 |
| 12 (300) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 120J7 | 679 | 679 | 679 | 559 | 419 | 274 | 269 | 349 | 51 | 348 |
| 12 (300) ASME - 900 , WN / RTJ | 8705 _ _ _ 120J9 | 774 | 774 | 774 | 610 | 419 | 274 | 269 | 343 | 80 | 508 |
| 12 (300) ASME -1500 , WN / RTJ | 8705 _ _ _ 120JM | 959 | 959 | 959 | 673 | 419 | 274 | 269 | 312 | 80 | 937 |
| 12 (300) ASME -2500 , WN / RTJ | 8705 _ _ _ 120JN | 1331 | 1331 | 1331 | 762 | 419 | 274 | 269 | 306 | 80 | 1786 |
| 14 (350) ASME - 600 FULL, WN / RF | 8705 _ _ _ 140D7 | 761 | 761 | 761 | 603 | 481 | 300 | 300 | 387 | 51 | 426 |
| 14 (350) ASME -1500 , WN / RF | 8705 _ _ _ 140DM | 1037 | 1037 | 1037 | 749 | 481 | 300 | 300 | 357 | 80 | 1208 |
| 14 (350) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 140J7 | 765 | 765 | 765 | 603 | 481 | 300 | 300 | 381 | 51 | 431 |
| 16 (400) ASME - 600 FULL, WN / RF | 8705 _ _ _ 160D7 | 844 | 844 | 844 | 686 | 532 | 326 | 326 | 445 | 80 | 579 |
| 16 (400) ASME -1500 , WN / RF | 8705 _ _ _ 160DM | 1116 | 1116 | 1116 | 826 | 532 | 326 | 326 | 470 | 80 | 1581 |
| 16 (400) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 160J7 | 848 | 848 | 848 | 686 | 532 | 326 | 326 | 432 | 80 | 584 |
| 18 (450) ASME - 600 FULL, WN / RF | 8705 _ _ _ 180D7 | 886 | 886 | 886 | 743 | 596 | 358 | 358 | 508 | 80 | 696 |
| 18 (450) ASME -1500 , WN / RF | 8705 _ _ _ 180DM | 1174 | 1174 | 1174 | 914 | 596 | 358 | 358 | 533 | 86 | 2003 |
| 18 (450) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 180J7 | 890 | 890 | 890 | 743 | 596 | 358 | 358 | 492 | 80 | 701 |
| 20 (500) ASME - 600 FULL, WN / RF | 8705 _ _ _ 200D7 | 963 | 963 | 963 | 813 | 647 | 384 | 384 | 559 | 80 | 860 |
| 20 (500) ASME -1500 , WN / RF | 8705 _ _ _ 200DM | 1290 | 1290 | 1290 | 984 | 647 | 384 | 384 | 536 | 86 | 2485 |
| 20 (500) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 200J7 | 971 | 971 | 971 | 813 | 647 | 384 | 384 | 533 | 80 | 870 |
| 24 (600) ASME - 600 FULL, WN / RF | 8705 _ _ _ 240D7 | 1067 | 1067 | 1067 | 940 | 763 | 442 | 441 | 660 | 80 | 1292 |
| 24 (600) ASME -1500 , WN / RF | 8705 _ _ _ 240DM | 1472 | 1472 | 1472 | 1168 | 763 | 442 | 441 | 648 | 86 | 4002 |
| 24 (600) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 240J7 | 1077 | 1077 | 1077 | 940 | 763 | 442 | 441 | 635 | 80 | 1311 |

Figure 16: 8705-M Flanged Sensor 1/2 -in. to 36-in. (DN 15mm to 900mm) M2/M4 coil housing (P ≤ Class 2500)

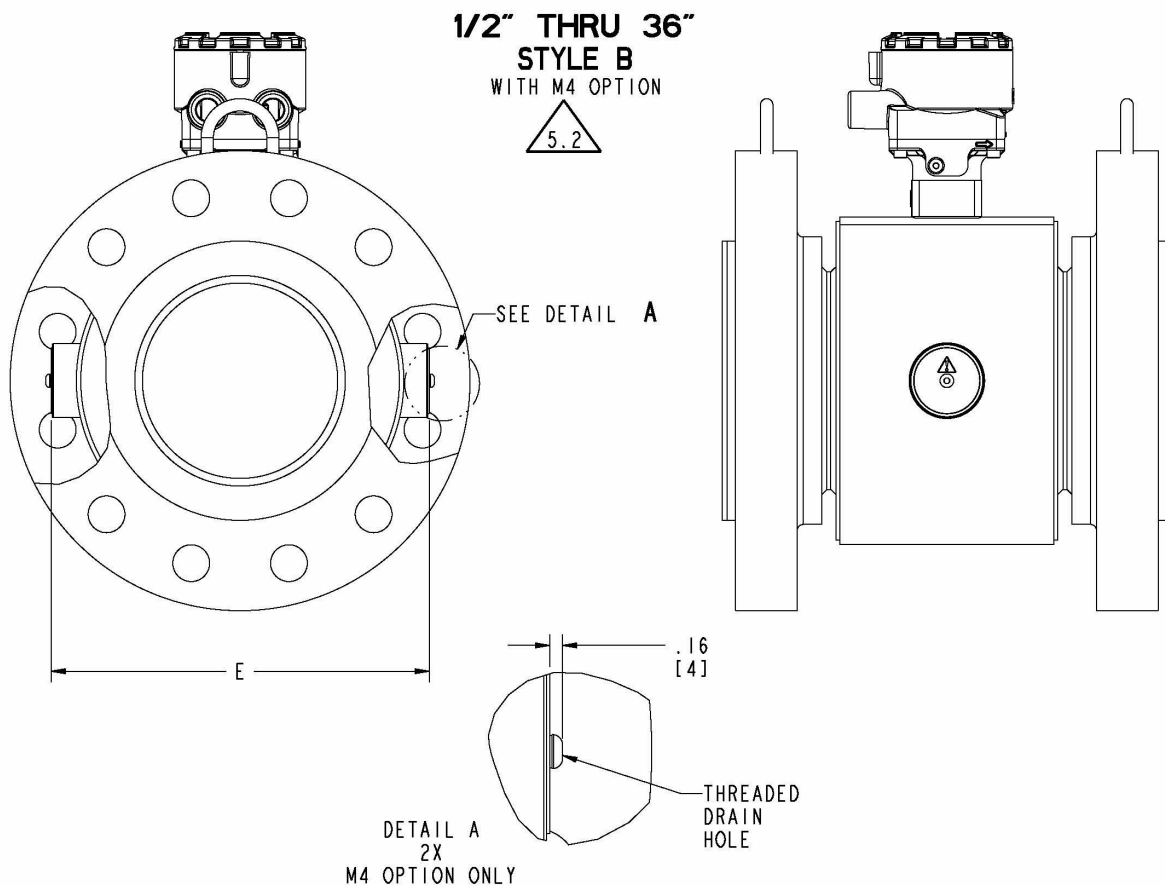
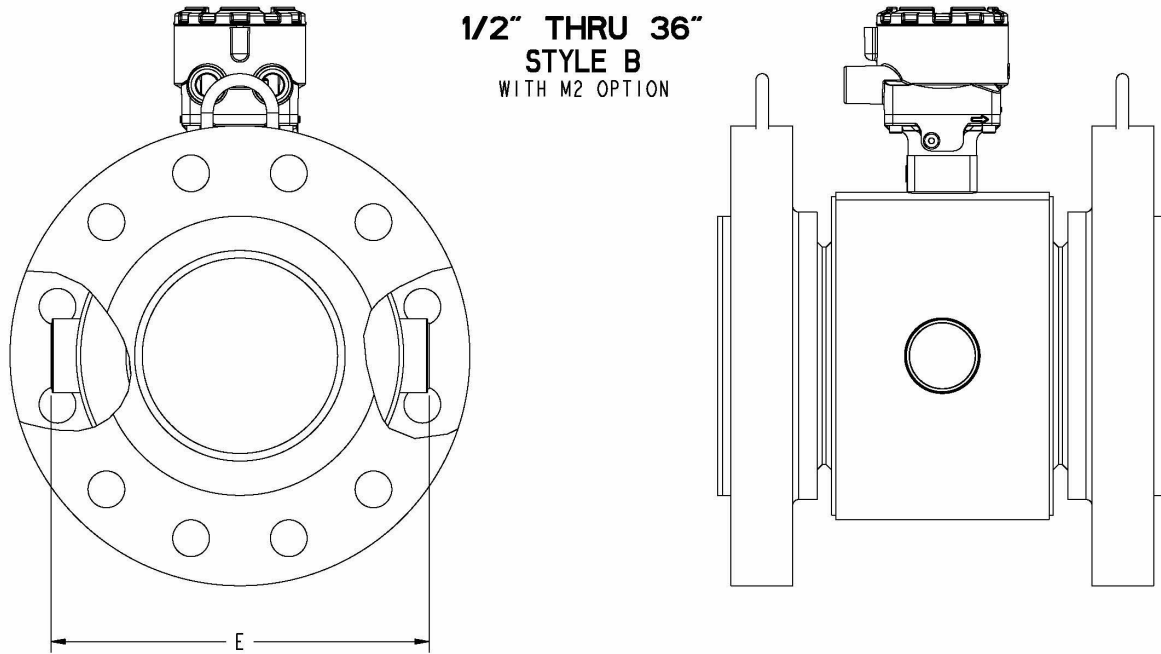



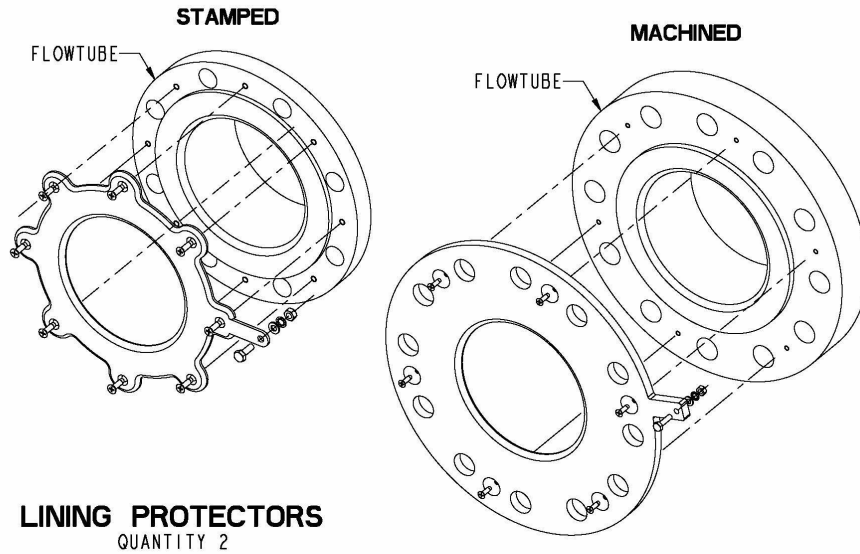
Table 120: 8705-M Flanged Sensor 1/2-in. to 36-in. (DN 15mm to 900mm) M2/M4 coil housing (P ≤ Class 2500)

| TABLE 120 BODY WIDTH WITH ELECTRODE ACCESS (M2) | | |
|---|------------------------------------|---------------------------------|
| SIZE - IN (mm) ALL FLANGES | BODY WIDTH W/ M2 DIM "E" (INCH) | BOD WIDTH W/ M2 DIM "E" (mm) |
| 4 (100) | 8.65 | 220 |
| 5 (125) | 9.71 | 247 |
| 6 (150) | 10.62 | 270 |
| 8 (200) | 12.62 | 321 |
| 10 (250) | 15.53 | 394 |
| 12 (300) | 17.53 | 445 |
| 14 (350) | 20.68 | 525 |
| 16 (400) | 22.68 | 576 |
| 18 (450) | 24.68 | 627 |
| 20 (500) | 26.68 | 678 |
| 24 (600) | 30.68 | 779 |
| 30 (750) | 36.68 | 932 |
| 36 (900) | 44.18 | 1122 |

 5.2 WHEN VENTING THE ELECTRODE COMPARTMENT, THE VENT AND RECOVERY PIPING DIAMETER MUST NOT BE SMALLER THAN THE M6 COVER THREADING TO AVOID BUILDING PRESSURE INSIDE THE ELECTRODE COMPARTMENT.

 5.1 WHEN M4 OPTION IS SELECTED ADD .320 (8mm) TO M2 DIM "E" (BODY WIDTH DIMENSION)

Figure 17: 8705-M Flanged Sensor 1/2 -in. to 36-in. (DN 15mm to 900mm) lining protectors—(P ≤ Class 900)

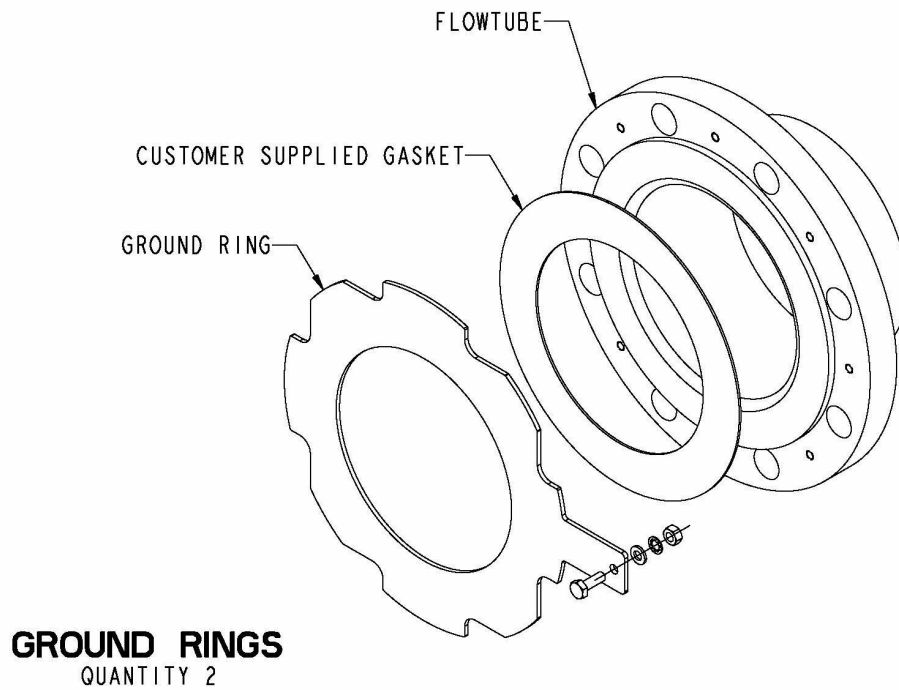


| LINING PROTECTOR THICKNESS 9.1 | | | | |
|---|---|-------|---|-------|
| Line Size in (mm) | THICKNESS (QTY 1) ADD VALUE TO "DIM A" (OVERALL LENGTH) | | THICKNESS (QTY 2) ADD VALUE TO "DIM A" (OVERALL LENGTH) | |
| | MIN | MAX | MIN | MAX |
| 0.5 (15) | 0.087 | 0.134 | 0.174 | 0.268 |
| 1 (25) | 0.084 | 0.130 | 0.168 | 0.260 |
| 1.5 (40) | 0.105 | 0.190 | 0.210 | 0.380 |
| 2 (50) | 0.105 | 0.190 | 0.210 | 0.380 |
| 2.5 (60) | 0.105 | 0.190 | 0.210 | 0.380 |
| 3 (80) | 0.105 | 0.190 | 0.210 | 0.380 |
| 4 (100) | 0.105 | 0.190 | 0.210 | 0.380 |
| 5 (125) | 0.128 | 0.190 | 0.256 | 0.380 |
| 6 (150) | 0.100 | 0.190 | 0.200 | 0.380 |
| 8 (200) | 0.090 | 0.190 | 0.180 | 0.380 |
| 10 (250) | 0.110 | 0.185 | 0.220 | 0.370 |
| 12 (300) | 0.110 | 0.185 | 0.220 | 0.370 |
| 14 (350) | 0.150 | 0.185 | 0.300 | 0.370 |
| 16 (400) | 0.150 | 0.185 | 0.300 | 0.370 |
| 18 (450) | 0.150 | 0.162 | 0.300 | 0.324 |
| 20 (500) | 0.150 | 0.162 | 0.300 | 0.324 |
| 24 (600) | 0.150 | 0.162 | 0.300 | 0.324 |
| 30 (750) | 0.285 | 0.285 | 0.570 | 0.570 |
| 36 (900) | 0.410 | 0.410 | 0.820 | 0.820 |

9.2 ADDITIONAL LENGTH DOES NOT INCLUDE CUSTOMER SUPPLIED GASKET.

9.1 ACTUAL VALUE DEPENDENT UPON FLANGE RATING AND MATERIAL OF CONSTRUCTION; CONSULT FACTORY FOR EXACT DIMENSIONS.

Figure 18: 8705-M Flanged Sensor 1/2 -in. to 36-in. (DN 15mm to 900mm) ground rings—(P ≤ Class 900)



| GROUND RING THICKNESS | | | | |
|-----------------------|---|-------|---|-------|
| Line Size in (mm) | THICKNESS (QTY 1) ADD VALUE TO "DIM A" (OVERALL LENGTH) | | THICKNESS (QTY 2) ADD VALUE TO "DIM A" (OVERALL LENGTH) | |
| | MIN | MAX | MIN | MAX |
| | 0.5 (15) | 0.045 | 0.120 | 0.090 |
| 1 (25) | 0.045 | 0.120 | 0.090 | 0.240 |
| 1.5 (40) | 0.045 | 0.120 | 0.090 | 0.240 |
| 2 (50) | 0.045 | 0.120 | 0.090 | 0.240 |
| 2.5 (60) | 0.059 | 0.120 | 0.118 | 0.240 |
| 3 (80) | 0.045 | 0.120 | 0.090 | 0.240 |
| 4 (100) | 0.045 | 0.120 | 0.090 | 0.240 |
| 5 (125) | 0.059 | 0.120 | 0.118 | 0.240 |
| 6 (150) | 0.045 | 0.120 | 0.090 | 0.240 |
| 8 (200) | 0.045 | 0.120 | 0.090 | 0.240 |
| 10 (250) | 0.045 | 0.120 | 0.090 | 0.240 |
| 12 (300) | 0.045 | 0.120 | 0.090 | 0.240 |
| 14 (350) | 0.045 | 0.250 | 0.090 | 0.500 |
| 16 (400) | 0.045 | 0.250 | 0.090 | 0.500 |
| 18 (450) | 0.120 | 0.250 | 0.240 | 0.500 |
| 20 (500) | 0.120 | 0.250 | 0.240 | 0.500 |
| 24 (600) | 0.187 | 0.250 | 0.374 | 0.500 |
| 30 (750) | 0.187 | 0.250 | 0.374 | 0.500 |
| 36 (900) | 0.187 | 0.250 | 0.374 | 0.500 |

8711-M/L dimensions

Figure 19: 8711-M/L Wafer Sensor 1 1/2-in. to 8-in. (DN 40mm to 200mm) wafer—(P ≤ Class 300)

I.S. WAFER MAGMETER 1.5" TO 8" STYLE B

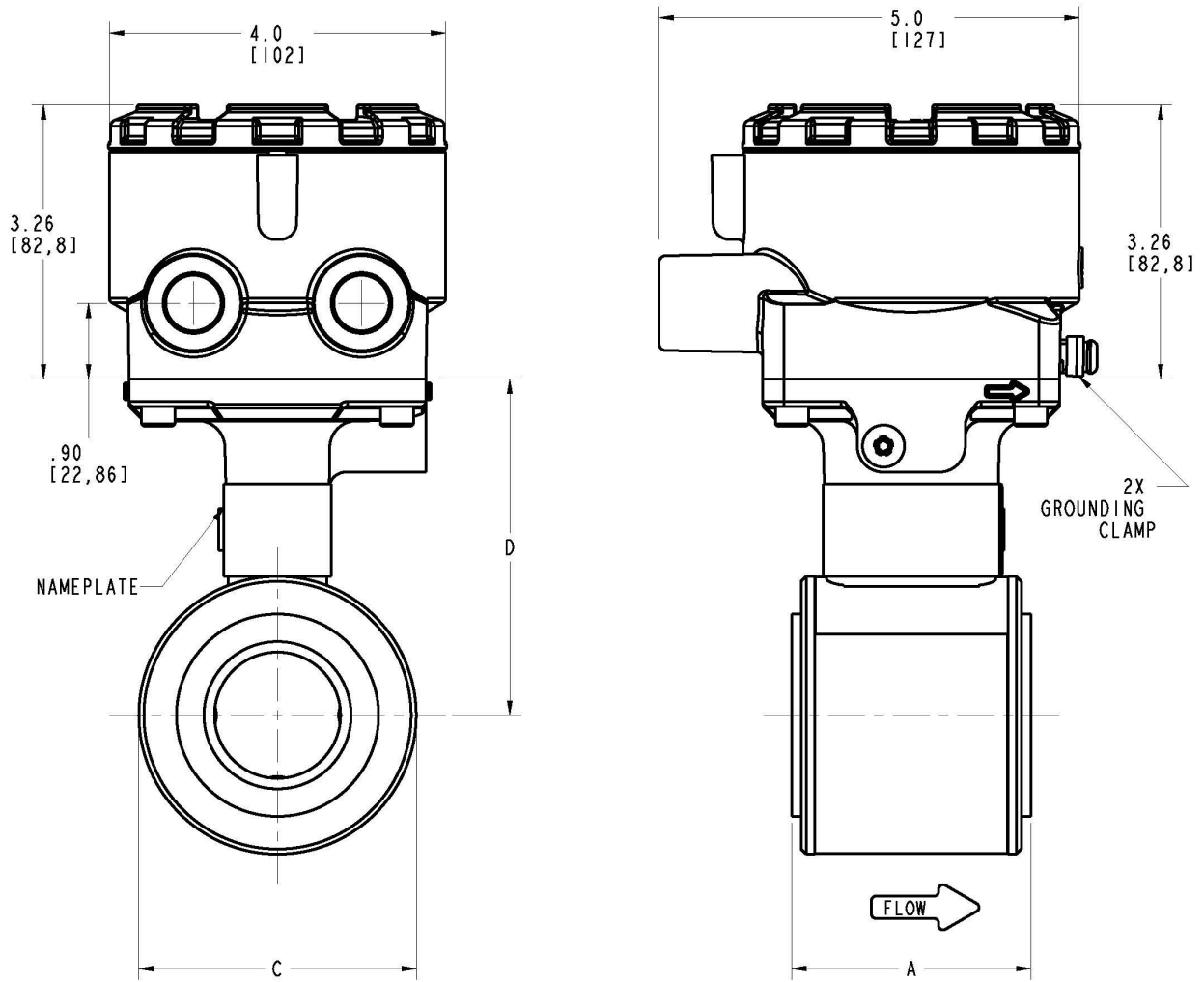


Table 121: 8711-M/L Wafer Sensor 1 1/2-in. to 8-in. (DN 40mm to 200mm) wafer—(P ≤ Class 300)

| Inches | | | | | | | | | |
|---|---------------|-----------------|-----------------|----------------|-------------------|-------------------------------|---------|-------------------------------|----------------------------------|
| SIZE, DESCRIPTION | MODEL NUMBER | OVERALL LENGTH | | | BODY Ø DIM "C" | DIM "D" CL TO TUBE ADAPTER | | LINER Ø ON FACE DIM "J" | FLOW TUBE WEIGHT (lbs.) |
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" PFA | | STYLE A | STYLE B | | |
| 0.15 (4) WAFER UP TO ANSI - 150# / DIN PN16 | 8711_ _ _ 15F | | | 2.17 | 3.56 | 3.25 | | 1.37 | 4 |
| 0.3 (8) WAFER UP TO ANSI - 150# / DIN PN16 | 8711_ _ _ 30F | | | 2.17 | 3.56 | 3.25 | | 1.37 | 4 |
| 0.5 (15) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 005 | 2.21 | 2.16 | | 3.56 | 3.25 | | 1.38 | 4 |
| 1 (25) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 010 | 2.26 | 2.13 | | 4.50 | 3.56 | | 1.94 | 5 |
| 1.5 (40) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 015 | 2.88 | 2.73 | | 3.29 | 3.67 | 4.00 | 2.42 | 5 |
| 2 (50) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 020 | 3.32 | 3.26 | | 3.92 | 3.89 | 4.32 | 3.05 | 7 |
| 3 (80) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 030 | 4.82 | 4.62 | | 5.17 | 4.51 | 4.95 | 4.41 | 13 |
| 4 (100) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 040 | 6.03 | 5.83 | | 6.39 | 5.12 | 5.56 | 5.80 | 22 |
| 6 (150) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 060 | 7.08 | 6.87 | | 8.57 | 6.22 | 6.65 | 7.86 | 35 |
| 8 (200) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 080 | 9.06 | 8.86 | | 10.63 | 7.25 | 7.68 | 9.86 | 60 |

| Millimeters | | | | | | | | | |
|---|---------------|-----------------|-----------------|----------------|-------------------|-------------------------------|---------|-------------------------------|--------------------------------|
| SIZE, DESCRIPTION | MODEL NUMBER | OVERALL LENGTH | | | BODY Ø DIM "C" | DIM "D" CL TO TUBE ADAPTER | | LINER Ø ON FACE DIM "J" | FLOW TUBE WEIGHT (kg) |
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" PFA | | STYLE A | STYLE B | | |
| 0.15 (4) WAFER UP TO ANSI - 150# / DIN PN16 | 8711_ _ _ 15F | | | 55 | 90 | 83 | | 35 | 2 |
| 0.3 (8) WAFER UP TO ANSI - 150# / DIN PN16 | 8711_ _ _ 30F | | | 55 | 90 | 83 | | 35 | 2 |
| 0.5 (15) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 005 | 56 | 55 | | 90 | 83 | | 35 | 2 |
| 1 (25) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 010 | 57 | 54 | | 114 | 90 | | 49 | 2 |
| 1.5 (40) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 015 | 73 | 69 | | 84 | 93 | 102 | 61 | 2 |
| 2 (50) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 020 | 84 | 83 | | 100 | 99 | 110 | 77 | 3 |
| 3 (80) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 030 | 122 | 117 | | 131 | 115 | 126 | 112 | 6 |
| 4 (100) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 040 | 153 | 148 | | 162 | 130 | 141 | 147 | 10 |
| 6 (150) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 060 | 180 | 174 | | 218 | 158 | 169 | 200 | 16 |
| 8 (200) WAFER UP TO ANSI - 300# / DIN PN40 | 8711_ _ _ 080 | 230 | 225 | | 270 | 184 | 195 | 250 | 27 |

8721 dimensions

Figure 20: 8721 Hygienic (Sanitary) Sensor 1/2-in. to 4-in. (15 mm to 100 mm)

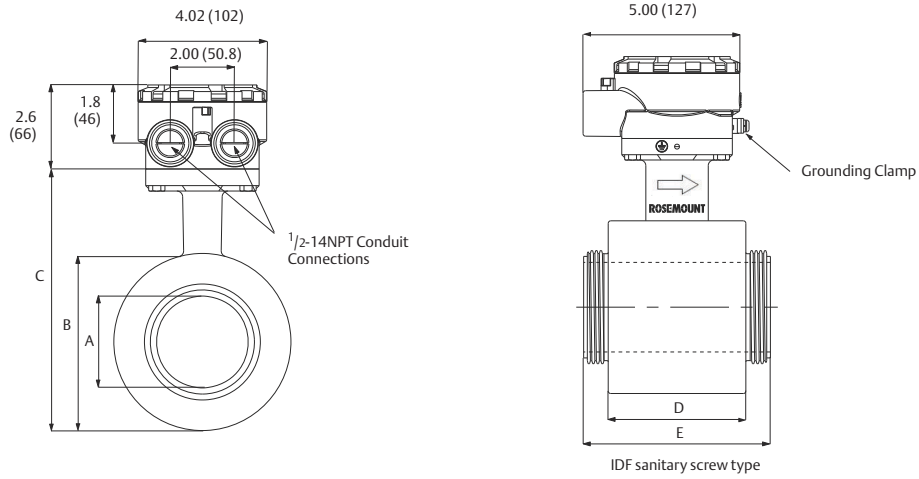
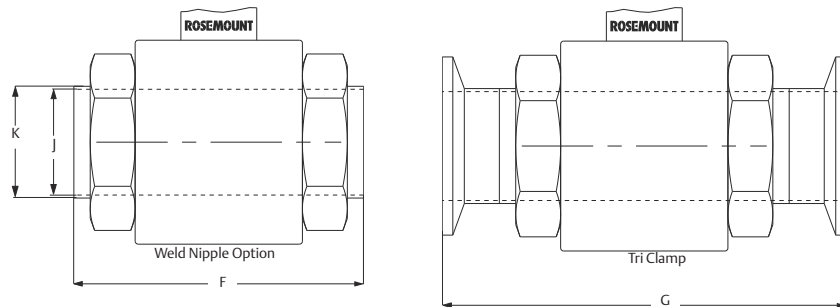


Table 122: 8721 Hygienic (Sanitary) Sensor 1/2-in. to 4-in. (15 mm to 100 mm)

| Line size | Sensor dimensions A | Body diameter B | Sensor height C | Body length D | IDF length E |
|------------|---------------------|-----------------|-----------------|---------------|--------------|
| | Figure 20 | Figure 20 | Figure 20 | Figure 20 | Figure 20 |
| 1/2 (15) | 0.62 (15.8) | 2.87 (73.0) | 5.51 (140.0) | 2.13 (54.0) | 3.66 (93.0) |
| 1 (25) | 0.87 (22.2) | 2.87 (73.0) | 5.51 (140.0) | 2.13 (54.0) | 3.66 (93.0) |
| 1 1/2 (40) | 1.37 (34.9) | 3.50 (88.9) | 6.14 (155.9) | 2.40 (61.0) | 3.96 (100.5) |
| 2 (50) | 1.87 (47.6) | 4.00 (101.5) | 6.63 (168.5) | 2.83 (72.0) | 4.41 (112.0) |
| 2 1/2 (65) | 2.38 (60.3) | 4.53 (115.0) | 7.17 (182.0) | 3.58 (91.0) | 5.23 (133.0) |
| 3 (80) | 2.87 (73.0) | 5.57 (141.5) | 8.21 (208.5) | 4.41 (112.0) | 5.98 (152.0) |
| 4 (100) | 3.84 (97.6) | 6.98 (177.0) | 9.61 (244.0) | 5.20 (132.0) | 6.77 (172.0) |

Figure 21: 8721 Hygienic (Sanitary) Sensor Weld Nipple and Tri Clamp



Note:
Dimensions are in inches (millimeters).

Table 123: 8721 Hygienic (Sanitary) Sensor 1/2 -in. to 4-in. (15 mm to 100 mm)

| Line size | Weld nipple length F | Weld nipple sensor ID J | Weld nipple sensor OD K | Tri Clamp length G | HP option length h G | DIN 11851 (Imp & Met) length G | DIN 11851 (Imp) ID J | DIN 11851 (Metric) ID J |
|------------|----------------------|-------------------------|-------------------------|--------------------|----------------------|--------------------------------|----------------------|-------------------------|
| | Figure 21 | Figure 21 | Figure 21 | Figure 21 | Figure 21 | Figure 22 and Figure 23 | Figure 22 | Figure 23 |
| 1/2 (15) | 5.61 (142) | 0.62 (15.75) | 0.75 (19.05) | 8.31 (211) | NA | 8.33 (211) | 0.62 (15.75) | 0.79 (19.99) |
| 1 (25) | 5.61 (142) | 0.87 (22.2) | 1.00 (25.65) | 7.85 (199) | 9.85 (250) | 7.89 (200) | 0.85 (21.52) | 1.02 (26.01) |
| 1 1/2 (40) | 5.92 (150) | 1.37 (34.9) | 1.51 (38.3) | 8.17 (207) | 9.91 (252) | 8.53 (217) | 1.37 (34.85) | 1.50 (38.00) |
| 2 (50) | 6.35 (161) | 1.87 (47.6) | 2.01 (51.05) | 8.60 (218) | 9.91 (252) | 9.10 (231) | 1.87 (47.60) | 1.97 (50.01) |
| 2 1/2 (65) | 7.18 (182) | 2.37 (60.3) | 2.51 (63.75) | 9.43 (239) | 9.91 (252) | 10.33 (262) | 2.37 (60.30) | 2.60 (65.99) |
| 3 (80) | 7.93 (201) | 2.87 (73.0) | 3.01 (76.45) | 10.18 (258) | 9.91 (252) | 11.48 (291) | 2.87 (72.97) | 3.19 (81.03) |
| 4 (100) | 9.46 (240) | 3.84 (97.6) | 4.01 (101.85) | 11.70 (297) | NA | 13.72 (349) | 3.84 (97.61) | 3.94 (100.00) |

| Line size in. (mm) | DIN 11864-1 length G in. (mm) | DIN 11864-2 length G in. (mm) | SMS 1145 length G in. (mm) | Cherry-Burrell I-Line length G in. (mm) |
|--------------------|-------------------------------|-------------------------------|----------------------------|---|
| | Figure 24 | Figure 25 | Figure 26 | Figure 27 |
| 1/2 (15) | NA | NA | NA | NA |
| 1 (25) | 8.98 (228.0) | 8.86 (225.0) | 6.87 (174) | 7.17 (182) |
| 1 1/2 (40) | 9.72 (247.0) | 9.57 (243.0) | 7.50 (190) | 7.80 (198) |
| 2 (50) | 10.16 (258.0) | 10.00 (254.0) | 7.93 (201) | 8.42 (214) |
| 2 1/2 (65) | 11.89 (302.0) | 11.54 (293.0) | 9.07 (230) | 9.49 (241) |
| 3 (80) | 12.95 (329.0) | 12.44 (316.0) | 9.82 (249) | 10.37 (263) |
| 4 (100) | 14.57 (370.0) | 14.21 (361.0) | 11.67 (296) | 12.15 (309) |

Figure 22: 8721 Hygienic (Sanitary) Sensor DIN 11851 (Imperial)

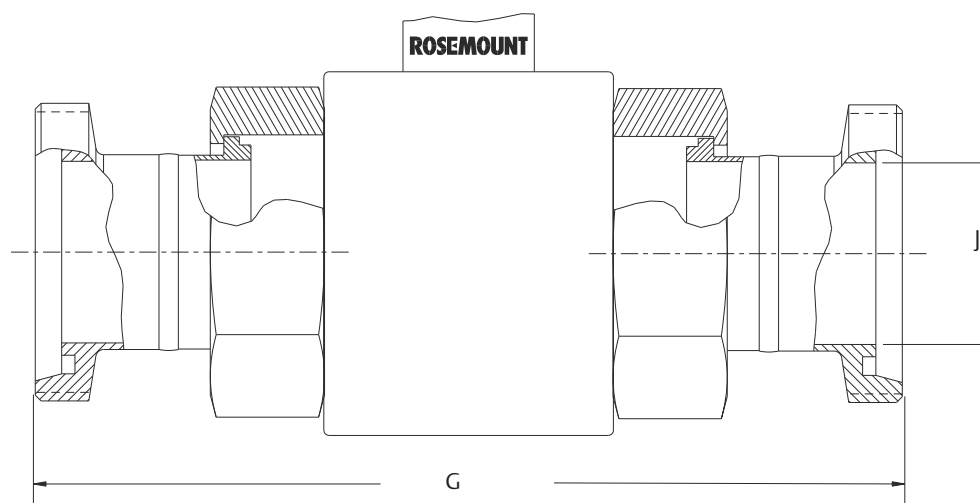


Figure 23: 8721 Hygienic (Sanitary) Sensor DIN 11851 (Metric)

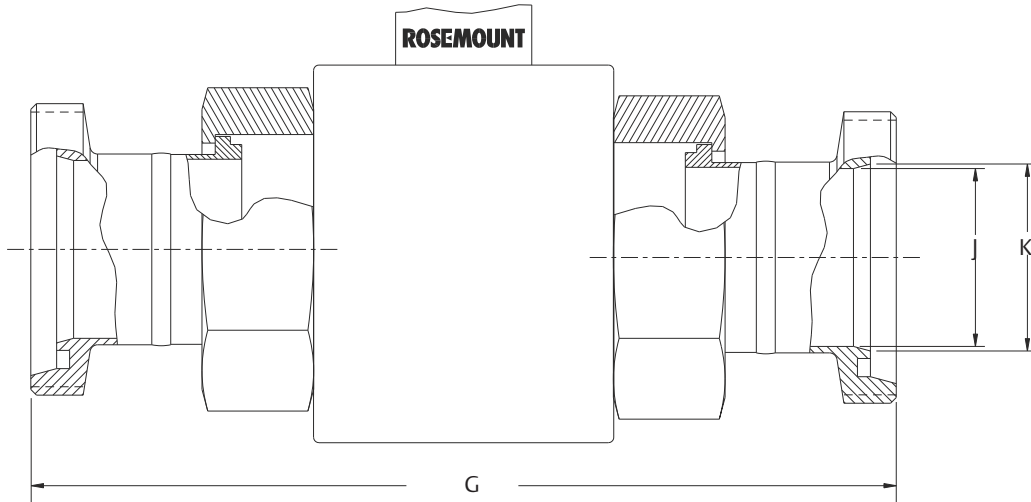


Figure 24: 8721 Hygienic (Sanitary) Sensor DIN 11864-1

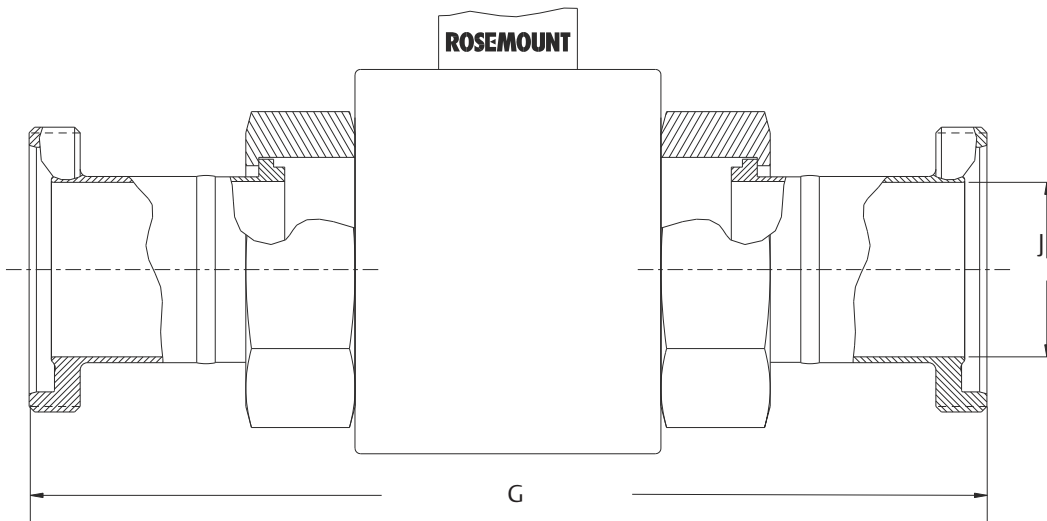


Figure 25: 8721 Hygienic (Sanitary) Sensor DIN 11864-2

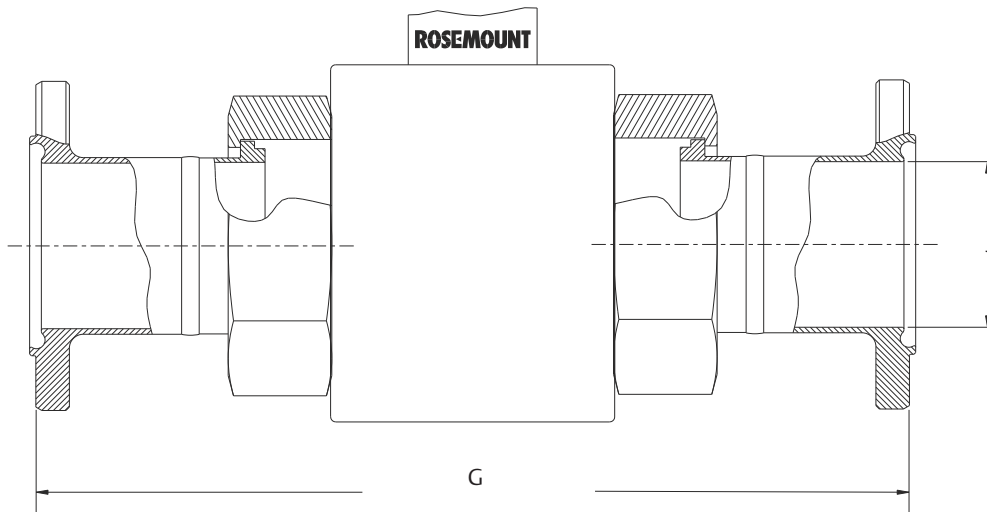


Figure 26: 8721 Hygienic (Sanitary) Sensor SMS1145

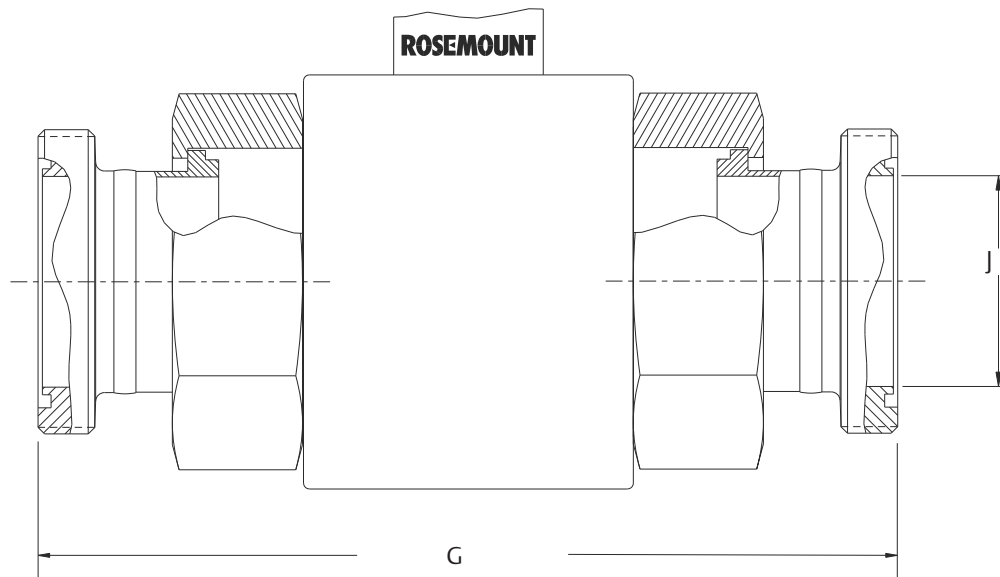
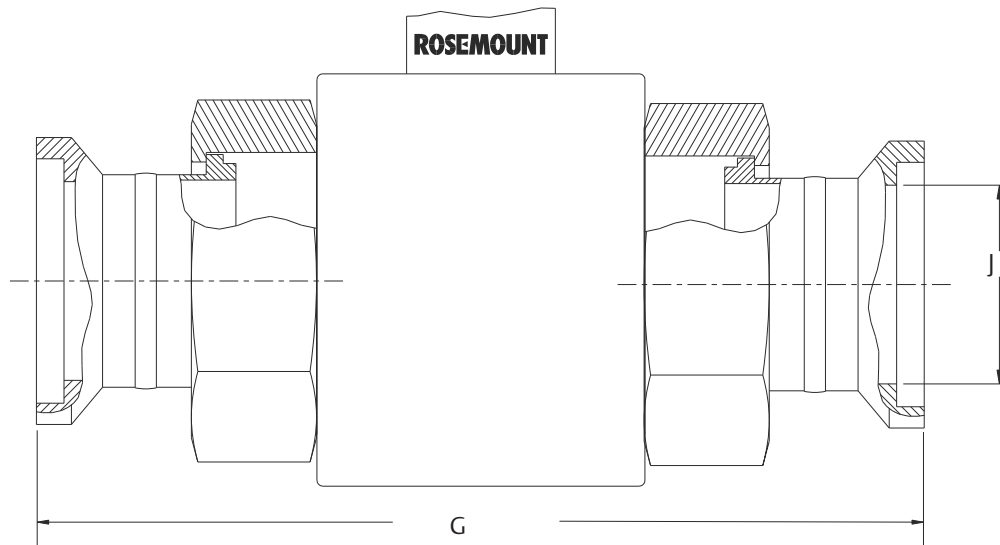
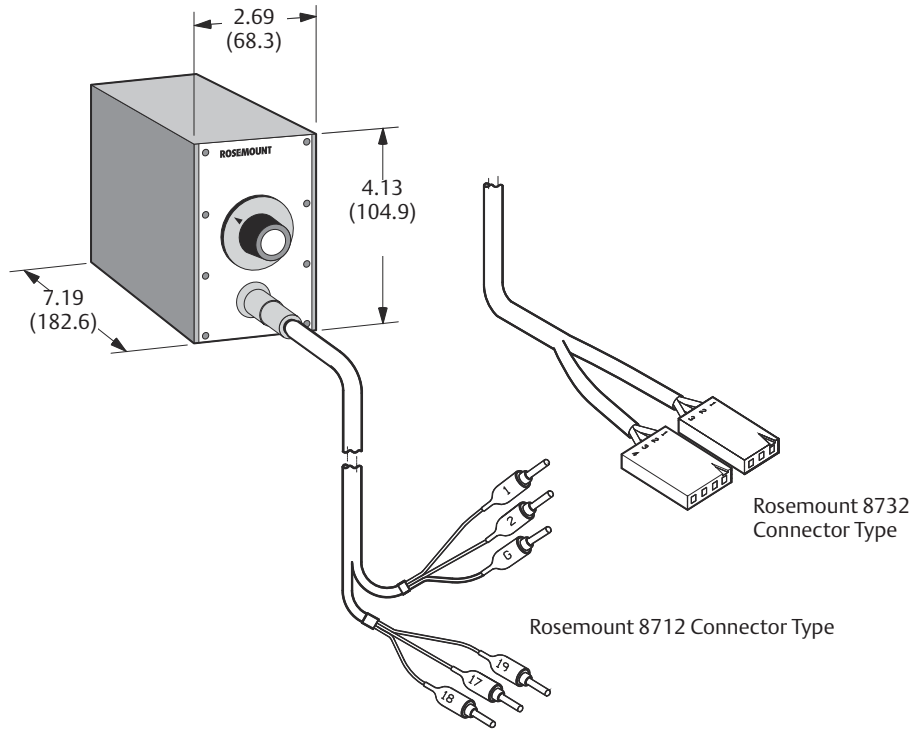


Figure 27: 8721 Hygienic (Sanitary) Sensor Cherry Burrell I-Line



8714 dimensions

Figure 28: 8714D Magnetic Flowmeter Simulator—Calibration Standard



Note

The Rosemount 8714D is shipped with both the 8712 and 8732 Connector Types.

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