Quick Start Guide
00825-0100-4035, Rev AA
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Rosemount™ 935

Open Path Combustible Gas Detector

ROSEMOUNT™

EMERSON.

Legal notice

⚠ WARNING

All individuals who have or will have responsibility for using, maintaining, or servicing the product must read this manual thoroughly.

⚠ WARNING

Physical access

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

⚠ CAUTION

The source and detector are not field-repairable due to the meticulous alignment and calibration of the sensors and the respective circuits.

Do not attempt to modify or repair the internal circuits or change their settings, as this will impair the system's performance and void the Emerson product warranty.

Glossary and abbreviations

Abbreviation	Meaning
Analog video	Video values are represented by a scaled signal.
ATEX	Atmosphere explosives
AWG	American wire gauge
BIT	Built-in test
CMOS	Complementary metal oxide semiconductor image sensor
Digital video	Each component is represented by a number representing a discrete quantization.
DSP	Digital signal processing
EMC	Electromagnetic compatibility
EMI	Electromagnetic interference
EOL	End of line

Abbreviation	Meaning
FOV	Field of view
HART®	Highway addressable remote transducer communication protocol
IAD	Immune at any distance
IECEx	International Electrochemical Commission explosion
IP	Internet protocol
IPA	Isopropyl alcohol
IR	Infrared
IR3	Refers to the three infrared sensors
JP5	Jet fuel
Latching	Refers to relays remaining in the On state even after the On condition has been removed.
LED	Light-emitting diode
LEL	Lower explosive limit: The minimum concentration of a substance (gas/vapor) in air mixture that can be ignited. This mixture is different for every gas/vapor, measured in % of LEL.
LEL.m	Integral of concentration in LEL units (1 LEL = 100% LEL) and the operation distance in meters (m).
LNG	Liquified natural gas
LPG	Liquified petroleum gas
mA	MilliAmps (0.001 amps)
Modbus®	Master-slave messaging structure
N.C.	Normally closed
N.O.	Normally open
N/A	Not applicable
NFPA	National Fire Protection Association
NPT	National pipe thread
NTSC	National Television System Committee (a color encoding system)
PAL	Phase alternation by line (a color encoding system)
PN	Part number
RFI	Radio frequency interference
RTSP	Real time streaming protocol
SIL	Safety integrity level
UNC	Unified coarse thread
Vac	Volts alternating current
Vdc	Volts direct current
µm	Micrometer

Contents

1 Installation

1.1 General considerations

1.1.1 Personnel

Only employ suitably qualified personnel who are familiar with the local codes and practices and trained for gas detection maintenance.

Ensure that wiring is only performed and supervised by someone with knowledge of electronics and, in particular, wiring installation.

1.1.2 Site requirements

When installing the Rosemount 935, take into account the weight of the monitored gas compared to that of the surrounding air and the individual site requirements.

Ensure that the site selected gives the detector a direct view to the source. The mounting point for each item should be secure and stable with minimal vibrations. Mount the equipment in a position where it cannot be knocked out of alignment and is guarded from physical impact.

1.1.3 Source and detector

Select the appropriate detector for the length of open path to be monitored.

To allow for aging of the source and a reduction of the infrared signal due to adverse weather, Emerson recommends using a detector that is not at the limit of its operating range.

The general recommendation is to install the detector at a distance from the source of not more than 75 percent of the specified operating distance. In severe weather conditions, such as offshore oil production and exploration, reduce this distance to 50 percent.

Keep the open path between the source and detector clear of any obstacles that might hinder the free movement of air in the protected area or block the infrared beam.

1.1.4 Tips for gas detector locations

To provide the best detection coverage, install the detector:

- Below potential leak source for gases heavier than air.
- Above potential leak sources for gases lighter than air.
- Near to leak sources along the expected leak trajectory, taking into account prevailing wind directions.

⚠ CAUTION

For optimal performance, avoid placing the detector in locations frequently covered by steam.

1.1.5 Separation distances

To avoid cross talk between adjacent Open Path Gas Detector (OPGD) systems where transmitters are installed on the same side, keep the relevant separation distance between the neighboring OPGD systems according to the installation lengths as listed in Table 1-1.

Table 1-1: Minimum Separation Distances

Installation line of sight distance, ft. (m)	Minimum separation, ft. (m)
33 (10)	3.3 (1)
66 (20)	5 (1.5)
98 (30)	6.5 (2.5)
131 (40)	11.5 (3.5)
164 (50)	15 (4.5)
197 (60)	16.5 (5)
230 (70)	20 (6)
262 (80)	23 (7)
295 (90)	26 (8)
328 (100)	28 (8.5)
361 (110)	29.5 (9)
394 (120)	33 (10)
427 (130)	34.5 (10.5)
459 (140)	38 (11.5)
492 (150)	42.5 (13)
525 (160)	47.5 (14.5)
558 (170)	49 (15)
591 (180)	51 (15.5)
623 (190)	52.5 (16)
656 (200)	54 (16.5)

1.1.6 Wiring

For wiring, use color-coded conductors or suitable wire markings or labels.

- The wire cross-section must be between 28 to 14 AWG (0.5 mm^2 to 2.5 mm^2).
- The selected wire gauge should be based on the number of detectors used on the same loop and the distance from the control unit. The maximum number of wire connections in one terminal is two wire cross-sections, each 1 mm^2.
- To fully comply with electromagnetic compatibility (EMC) directive and protect against interference caused by radio frequency interference (RFI) and electromagnetic interference (EMI), the cable to the detector must be shielded, and the detector must be grounded. Ground the shield at the detector end.

1.2 Preparations for installation

Ensure that installation complies with local, national, and international regulations and norms as applicable to gas detectors and approved electrical devices installed in hazardous areas.

1.2.1 Equipment

The system should include the following (in addition to the Quick Start Guide):

Figure 1-1: Box Contents

Commissioning kit (not pictured)

A. Source or detector (per box)
B. Tilt mounts

- Detector unit: 935-R1F00XXXX
- Source unit: 935-TXFXXXXXX

- Two tilt mount bases (one for the source and one for the detector).(1)
- Commissioning kit, three options when ordered:
  - For methane calibration
  - For propane calibration
  - For ethylene calibration

The commissioning kit includes:

- Alignment tool kit
- Function check filters
- HART® hand-held harness kit

Other accessories are available (per customer request):

- 5-in. pole mount kit
- 2 to 3-in. pole mount
- Wall mount
- Protective cover

Note
See the *Rosemount 935 Product Data Sheet* for accessory part numbers.

1.2.2 Required tools

You can install the detector using general purpose common tools and equipment.

Table 1-2: Tools

Tool	Function
Alignment kit	Provides tools to install fine alignment tool.
Hex key 8 mm	Mounts the detector on the tilt mount.
Hex key 3/16 in.	Aligns the detector.
Hex key 5/16 in.	Screws ¾ stop plug.
Flat screwdriver 4 mm	Connects ground terminal.
Flat screwdriver 2.5 mm	Connects wires to the terminal block.

(1) If you order a source or detector separately, you will receive one tilt mount.

1.3 Certification instructions

⚠ WARNING

EXPLOSION

Do not open the detector, even when isolated, in a flammable atmosphere.

- The cable entry point may exceed 182 °F (83 °C). Take suitable precautions when selecting the cable.
- The equipment may be used with flammable gases and vapors with apparatus groups IIA and IIB+H2 T4 in the ambient temperature range: -67 to +149 °F (-55 to +65 °C).
- Only suitably trained personnel shall install the detector in accordance with the applicable code of practice, e.g., EN 60079-14: 1997.
- Only suitably trained personnel shall inspect and maintain this equipment in accordance with the applicable code of practice, e.g., EN 60079-19.
- Only suitably trained personnel shall repair this equipment in accordance with the applicable code of practice, e.g., EN 60079-19.
- The certification of this equipment relies upon the following materials used in its construction:
  - Enclosure: Stainless steel 316
  - Windows: sapphire glass
  - Seals: EPDM
- If the equipment is likely to come into contact with aggressive substances, then it is your responsibility to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection provided by the equipment is not compromised.
  - Aggressive substances: For example, acidic liquids or gases that may attack metal or solvents that may affect polymeric materials.
  - Suitable precautions: For example, regular checks as part of routine inspections or establishing from the material's safety data sheets that it is resistant to specific chemicals.

1.4 Special conditions for safe use from ATEX IECEx certificate

The dimensions of the flameproof joints differ from the relevant minimum or maximum values required by Table 2 of IEC/EN 60079-1: 2007 for IIB + H_2, as detailed in Table 1-3.

Table 1-3: Flamepaths

Flamepath description	Type of joint	Minimum width "L" in inches (millimeters)	Maximum gap "i_c" in inches (millimeters)
Cylindrical section of spigot (both ends of Ex d compartment)	Cylindrical	0.59 (15)	0.003 (0.08)
1.2-in. (30 mm) diameter window fitted against enclosure	Flanged	0.42 (10.7)	0.001 (0.02)
1.6-in. (39.5 mm) diameter window fitted against enclosure	Flanged	0.39 (10)	0.001 (0.02)

- Gaps, "i_c", should not be modified to be any larger, and widths, "L", should not be modified to be any shorter than the values in Table 1-3.
- Connections to the intrinsically safe (I.S.) port on the side of the detector enclosure should be made using equipment that maintains the intrinsically safe levels of protection.
- The Um should be installed in accordance with one of the following:
  - The Um is 18 to 32 Vdc in a SELV/PELV system.
  - Via a safety isolating transformer, complying with the requirements of IEC 61588-2-6 or technically equivalent standard.
  - Directly connected to apparatus, complying with IEC 60950, IEC 61010-1, or technically equivalent standard.
  - Fed directly from cells or batteries.
- If the product is to be used as a safety related device, an appropriate independent certification, would be required meeting all the requirements.

1.5 Install conduits and cables

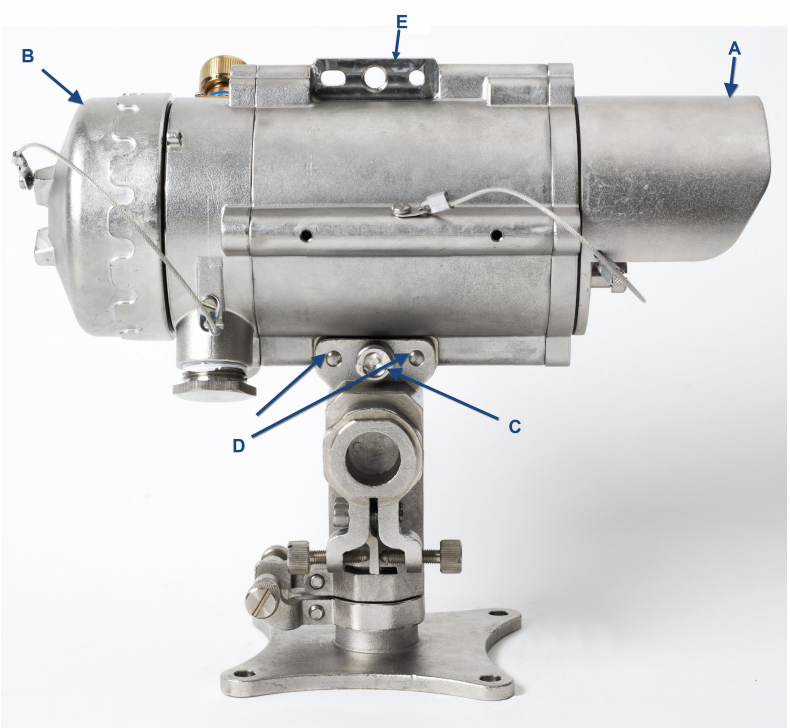
The conduit and cable installation must comply with the following guidelines:

- To avoid water condensation in the detector, install it with the conduits/cable entries facing downwards.
- Use flexible conduits/cables for the last portion connecting to the detector.
- When pulling the cables through the conduits, ensure that they are not tangled or stressed. Extend the cables about 12-in. (30 cm) beyond the detector location to accommodate wiring after installation.
- After pulling the conductor cables through the conduits, perform a continuity test.

1.6 Mount detector and source to tilt mount

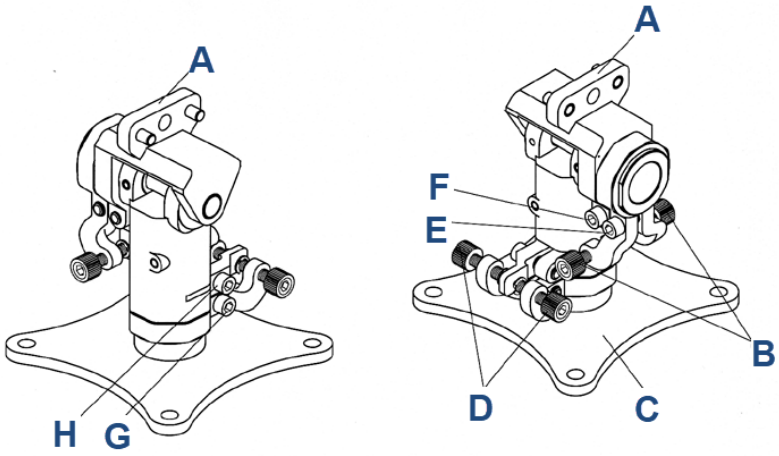
You can install the detector and source in two ways with the same tilt mount by using the upper or lower mounting access.

Figure 1-2: Mounting the Tilt Mount and Detector Using the Lower Mounting Access



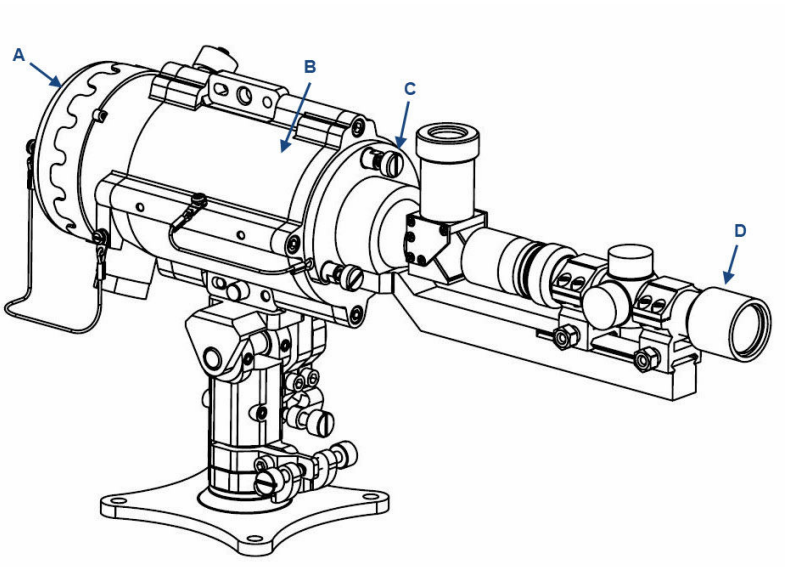
A. Front shield
B. Back cover
C. Security screw
D. Locating pins
E. Alternate mounting location

Figure 1-3: Tilt Mount



A. Detector/source holding plate
B. Vertical fine alignment screw
C. Tilt mount holding plate
D. Horizontal fine alignment screw
E. Vertical crude alignment tightening screw
F. Vertical fine alignment tightening screw
G. Horizontal crude alignment tightening screw
H. Horizontal fine alignment tightening screw

Figure 1-4: Detector and Tilt Mount Assembly Using Lower Mounting Access



A. Back cover
B. Detector
C. Alignment tool tightening bolt
D. Alignment tool

Table 1-4: Tilt Mount Kit

Item	Quantity	Type / model
Tilt mount	1	N/A
Screw	1	M10 x 1.5
Spring washer	1	No. 10

Prerequisites

Prior to mounting the tilt mount to a stable surface, verify that the line of site is unobstructed and corresponds to the detector's installation distance.

Procedure

1. Place the tilt mount holding plate in its designated location and secure it with four fasteners through four holes with diameters of 0.3-in. (8.5 mm).

NOTICE

Skip this step if the tilt mount is already installed.

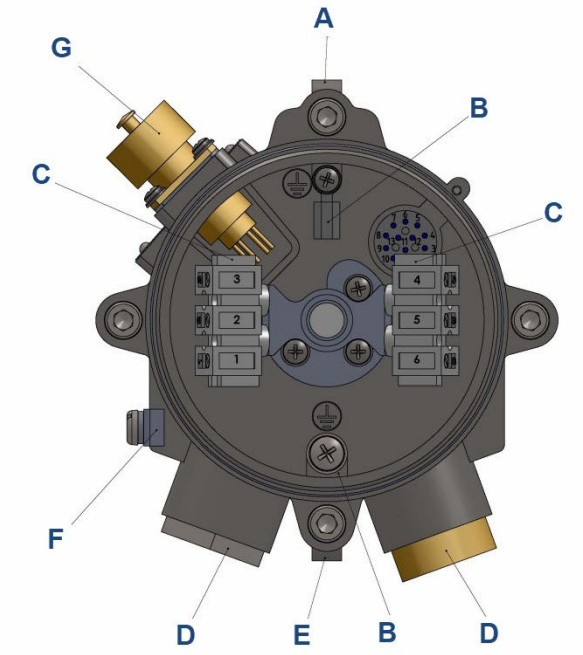
Removing the detector for maintenance purposes does not require removing the tilt mount.

2. Place the detector with its conduit/cable inlets pointing downwards on the detector holding plate of the tilt mount.
3. Secure the detector with M10 x 1.5 screws with number M10 spring washers.
4. Secure the detector to the tilt mount using hex key number 7 for M10 x 1.5 screws.
5. Repeat steps Step 1 through Step 4 to install the source.

1.7 Wire detector

To install the detector wiring:

Figure 1-5: Detector with Cover Removed



A. Housing
B. Internal earth connection
C. Terminal board
D. Inlet conduit
E. Detector holding plate
F. Earth terminal
G. Connection to Field Communicator

Procedure

1. Release the back cover secure bolt and open the detector back cover.
2. Remove the protective plug mounted on the detector conduit/cable entry inlet.
3. Pull the wires through the detector inlet.
4. Use a ¾-in.-14 national pipe thread (NPT) or M25 x 1.5 explosion-proof conduit connection/cable gland to assemble the cable/ explosion-proof conduit to the detector.

5. Connect the wires to the required terminals according to the wiring diagram.

   See Wiring configurations.

6. Connect the grounding wire to the ground screw outside the detector.

   The detector must be well grounded to earth ground.

7. Place and secure the detector cover by screwing the cover and securing it using the secure bolt.

1.8 Wiring to detector terminals

The detector has six wiring terminals. Table 1-5 describes the function of each electrical terminal of the detector.

Table 1-5: Wiring Options

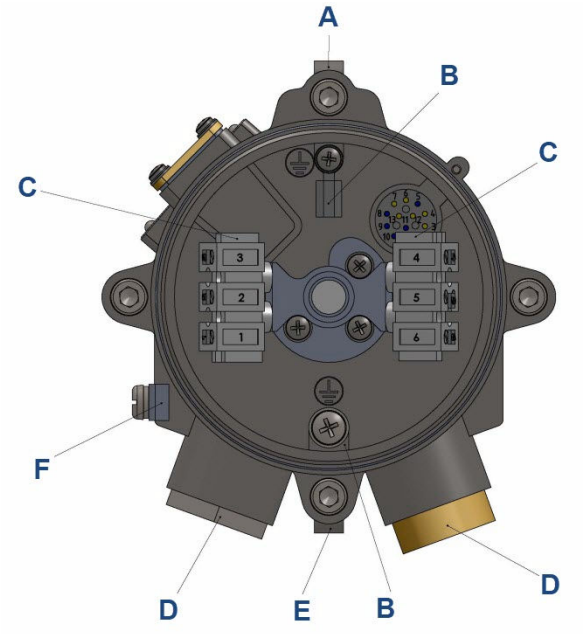
Terminal number	Function
1	Power +24 Vdc
2	Return -24 Vdc
3	0-20 mA (input)
4	0-20 mA (output)
5	RS-485 (+)
6	RS-485 (-)

1.9 Flash source wiring

1.9.1 Install flash source wiring

To install the wiring:

Figure 1-6: Source with Cover Removed



A. Housing
B. Internal earth connection
C. Terminal board
D. Inlet conduit
E. Detector holding plate
F. Earth terminal

Procedure

1. Release the back screw bolt and open the source back cover.
2. Remove the protective plug mounted on the source conduit/cable entry inlet; pull the wires through the source inlet.
3. Use a ¾-in.-14 national pipe thread (NPT) or M25 x 1.5 explosion-proof conduit connection/cable gland to assemble the cable/explosion-proof conduit to the detector.

4. Connect the wires to the required terminals according to the wiring diagram.

   See Wiring to source terminals and Wiring configurations.

5. Connect the grounding wire to the ground screw outside the detector.

   The source must be well grounded to earth ground.

6. Place and secure the source back cover by screwing the cover and securing the back screw bolt.

1.9.2 Wiring to source terminals

The source contains six wiring terminals.

Table 1-6: Flash Source Wiring Options

Terminal number	Function
1	Power + 24 Vdc
2	Return - 24 Vdc
3	Not used
4	Not used
5	RS-485 (+)
6	RS-485 (-)

1.10 Align detector

Use the alignment tool to perform full alignment.

Align the detector in two stages: crude alignment and fine alignment.

The alignment tool includes a periscope that consists of a prism and an ocular located vertical to the alignment tool assembly. This allows you to look into the opposite unit perpendicularly to the alignment when access from the rear of the unit is impossible. For installations where rear access is possible, you don't need to install the periscope. In this case, you can remove it by releasing the periscope fastening screw.

NOTICE

Prior to installing the alignment tool, verify that the alignment tool and its sight mounting are free from any dirt to ensure proper alignment according to factory calibration.
Do not attempt to change any factory calibration at the alignment tool or its mounting.

To align the detector (see Figure 1-3 and Figure 1-4):

1. Make sure that the detector and flash source are installed properly. Installation provides installation instructions.
2. Remove the front shield using the two captive screws.
3. Install the alignment tool assembly on the detector/source front.
4. Fasten the alignment tool with fastening screws.

1.10.1 Perform crude alignment

Prerequisites

Use a ¼-in. Allen screwdriver for all alignment screws.

Procedure

1. Loosen the horizontal lock screws.
2. Approximately aim the source horizontally towards the detector.
3. Tighten the horizontal lock screw adjacent to the plate.
4. Loosen the vertical lock screws.

⚠ CAUTION

If the detector is not properly supported when the lock screws are loosened, it could fall and get damaged.

Support the detector when loosening the vertical lock screws.

5. Approximately aim the source vertically towards the detector.
6. Tighten the outer vertical lock screw.
7. Repeat this process for the detector.

1.10.2 Perform fine alignment

Refer to Figure 1-4 to see the detector with the alignment tool installed.

Procedure

1. Remove the front shield and mount the alignment tool on the front of the source using the three screws.

   The alignment tool is supplied in the commissioning kit.
2. Aim the source towards the detector within the horizontal access.
3. Aim the alignment tool to the center of the front window of the detector or source.
4. Tighten the outer horizontal lock screw.

5. Aim the vertical axis.
6. Tighten the inner vertical lock screw.
7. Make sure the alignment tool cross is pointing to the detector and source center of the window.
8. Repeat Step 2 through Step 7 to align the detector.
9. Remove the alignment tool.
10. Install the front shield.

Postrequisites

Once you have completed fine alignment for both the source and detector, you can turn on the power.

Figure 1-7: View through the Alignment Tool

2 Operation

2.1 Safety precautions

After powering up, the detector requires minimal attention in order to function properly, but note the following:

⚠ WARNING

Follow the instructions in this document; refer to the drawings and specifications issued by the manufacturer.

⚠ WARNING

Do not open the detector/source housing while power is applied.

⚠ WARNING

Disconnect external devices, such as automatic extinguishing systems, before carrying out any maintenance tasks.

2.2 Power up

⚠ WARNING

Prior to operating or maintaining the detector, follow Safety precautions.

Procedure

1. Ensure that the source and detector are connected to power.
2. Ensure that the 4-20 mA wiring meter is connected to the detector.
3. Power up the system 18 to 32 Vdc.

   After sixty seconds, the current meter indicates 4 mA.

Postrequisites

After powering up, zero calibrate the system. See Zero calibrate.

2.3 Verify signal

Use an RS-485 or HART® Field Communicator to verify the signal in accordance with Table 2-1.

Figure 2-1: Light-Emitting Diode (LED) Indication Before Zero Calibration

1. Verify LED indication.
2. Use Winhost or HART® to verify installation parameters.

2.3.1 Signal limitation values

Table 2-1: Maintenance Channels' Limits

Channel	Installation distance		
	Minimum	Medium	Maximum
Reference	1 V gain 1	1 V gain 2	1 V gain 5
Signal	1 V gain 1	1 V gain 2	1 V gain 5
Ratio	0.6 - 1.4	0.6 - 1.4	0.6 - 1.4
NQRat	0.98 - 1.02		
Lower explosive limit (LEL)	0 LEL x m		
Temperature	Up to 25 °C beyond ambient temperature		
Voltage	32 Vdc > V > 18 Vdc		

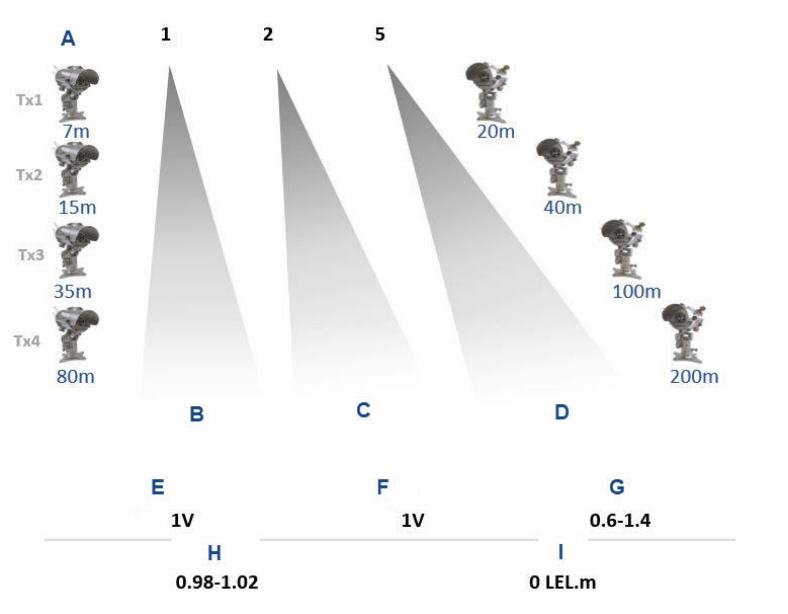
Note
The installation information refers to the installation distance.

Minimum The minimum distance, as defined according to the model number.

Medium Half the maximum distance, as defined according to the model number.

Maximum The maximum distance, as defined according to the model number.

Figure 2-2: Maintenance Channels' Limits



A. Maximum gain
B. Minimum range
C. Median range
D. Maximum range
E. Reference minimum
F. Signal minimum
G. Ratio
H. NQ ratio
I. LEL

2.4 Zero calibrate

Prerequisites

Zero calibrate after any of the following:

- Installation
- Realignment

- Window cleaning
- Any change in detector or source position

⚠ WARNING

Only zero calibrate when:

No combustible gases are present.
There is a clear path between the source and the detector.
Weather conditions are clear.

Before zero calibrating, align the detector precisely.

Figure 2-3: Screens shown when Zero Calibrating with WinHost® Software

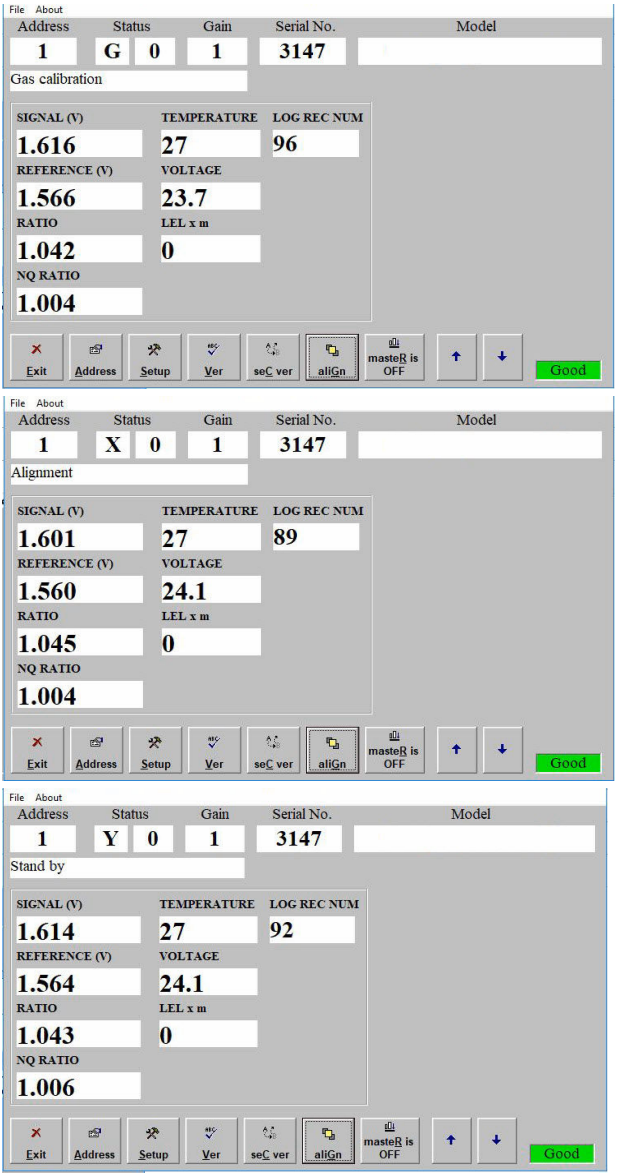
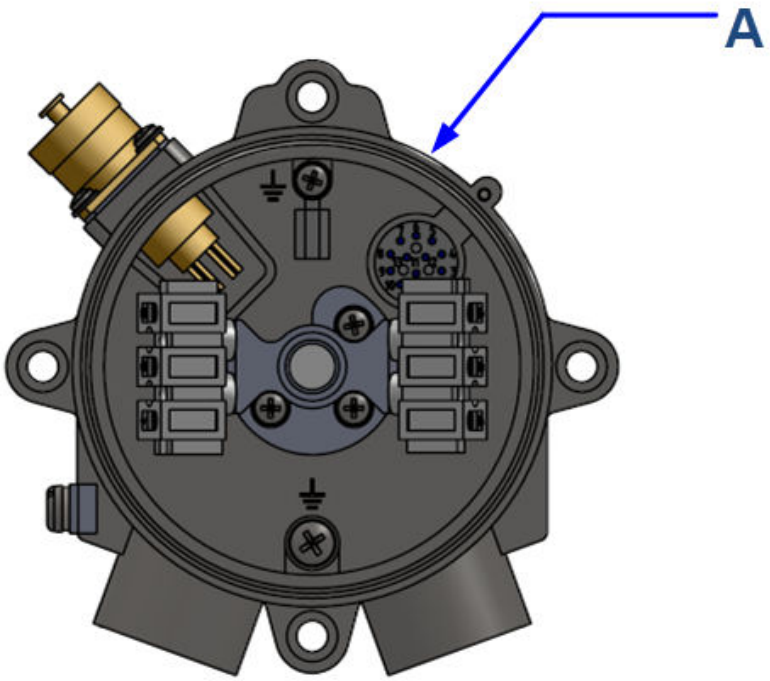


Figure 2-4: Magnetic Mode Selector



A. Magnet

To switch from each position (Step 1 through Step 3), use either Winhost, HART®, or RS-485 or move the magnetic mode selector above the magnetic switch (see Figure 2-4).

Procedure

1. Switch from Normal to Alignment mode.
2. Switch from Alignment to Standby mode.
3. Switch from Standby to Zero Calibration mode.
   The 0-20 mA output should now be at 1 mA.
4. Wait up to sixty seconds until it switches to Normal mode.
   The detector reading is now set to Normal. The 0-20 mA output should now indicate 4 mA.

Postrequisites

Once zero calibration is complete, refer to Signal limitation values to verify the installation parameters.

2.5 Use check filters to validate configuration

Procedure

1. Position the Warning Level check filter on the detector as shown.

   The check filters are provided in the commissioning kit.

Figure 2-5: Detector with Check Filter Installed

2. Check that the detector reading is within the range specified in the factory acceptance test (FAT) certificate.
3. Repeat Step 1 and Step 2 with the Alarm filter.
4. Remove all filters and wait 30 to 60 seconds. Then verify that the detector returns to Normal status (light-emitting diode [LED] is green and blinking, and the output is 4 mA).

3 Product certifications

The open path Rosemount 935 is approved for the following certifications:

- ATEX, IECEx
- FM / FMC
- SIL-2
- Functional test per FM6325 and EN60079-20-4

3.1 ATEX and IECEx

The Rosemount 935 is approved per:

Ex II 2(2) G D

Ex db eb ib [ib Gb] IIB+H_2 T4 Gb

Ex tb [ib Db] IIIC T135 °C Db

Ta = -55 °C to +65 °C

3.2 FM/FMC

The Rosemount 935 is approved to FM/FMC explosion proof per:

- Class I, Div. 1 Group B, C, and D, T6 -50 °C ≤ T_a ≤ 65 °C
- Dust ignition proof - Class II/III Div. 1, Group E, F, and G
- Ingress protection - IP66 & IP68, NEMA® 250 Type 6P

3.3 SIL-2

The Rosemount 935 is TUV approved for SIL-2 requirements per IEC61508.

The alert condition according to SIL-2 can be implemented by alert signal via 0-20 mA current loop.

For more details and guidelines on configuring, installing, operating, and servicing, see SIL-2 Features and TUV report number 968/EZ619.00/13.

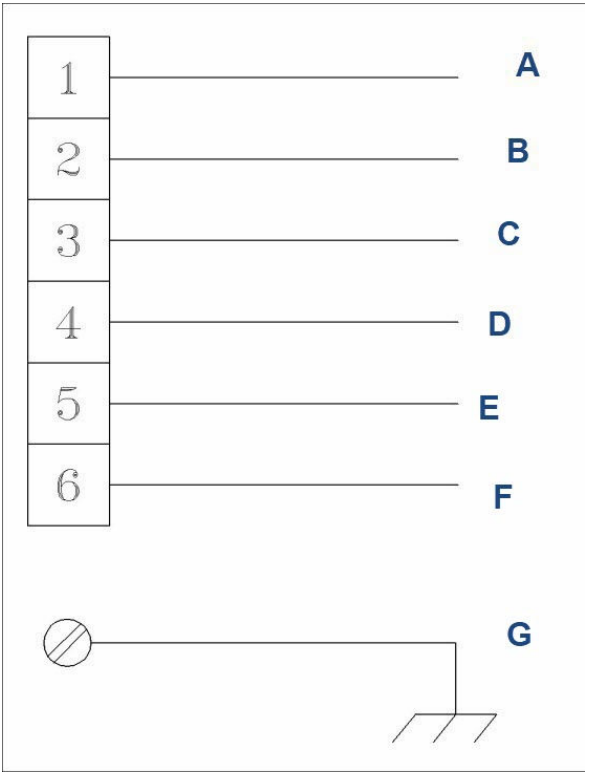
3.4 Functional approval

The Rosemount 935 was functionally approved per FM6325.

The Rosemount 935 was functionally tested by FM per EN60079-29-4.

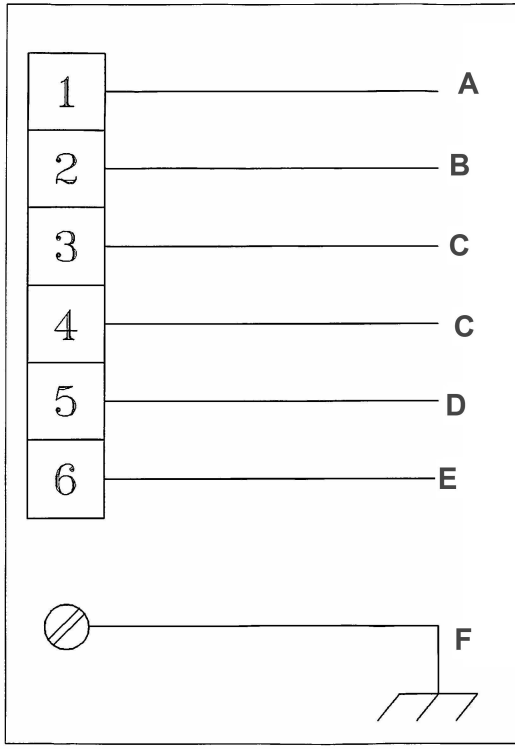
A Wiring configurations

Figure A-1: Detector Wiring Terminal



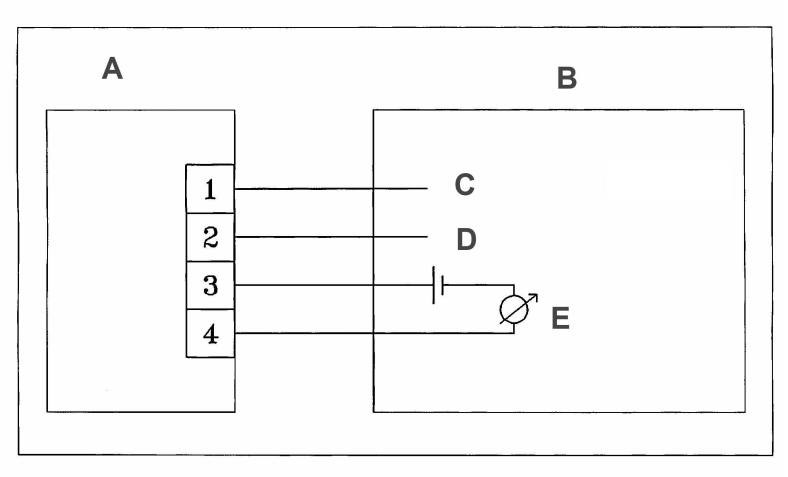
A. *Power (+)*
   18 to 32 Vdc
B. *Return (-)*
C. *0-20 mA (input)*
D. *0-20 mA (output)*
E. *RS-485 (+)*
F. *RS-485 (-)*
G. *Ground*

Figure A-2: Source Wiring Terminal



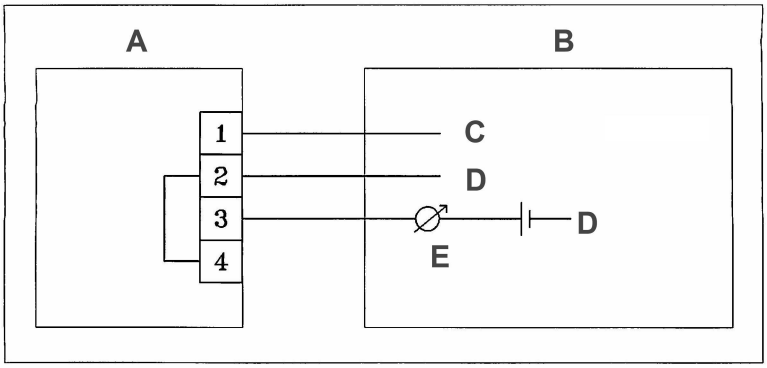
A. Power (+)
18 to 32 Vdc
B. Return (-)
C. Not used
D. RS-485 (+)
E. RS-485 (-)
F. Ground

Figure A-3: 0-20 mA Sink 4 Wire



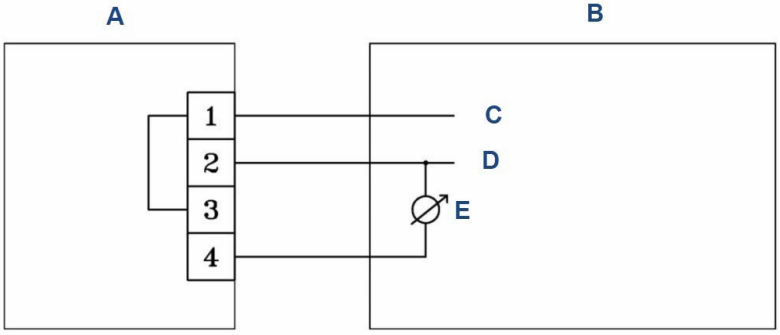
A. Detector
B. Controller
C. Input power: 18-32 Vdc
D. Return
E. 0-20 mA meter

Figure A-4: 0-20 mA Non-Isolated Sink 3 Wire



A. Detector
B. Controller
C. Input power: 18-32 Vdc
D. Return
E. 0-20 mA meter

Figure A-5: 0-20 mA Source 3 Wire



A. Detector
B. Controller
C. Input power: 18-32 Vdc
D. Return
E. 0-20 mA meter

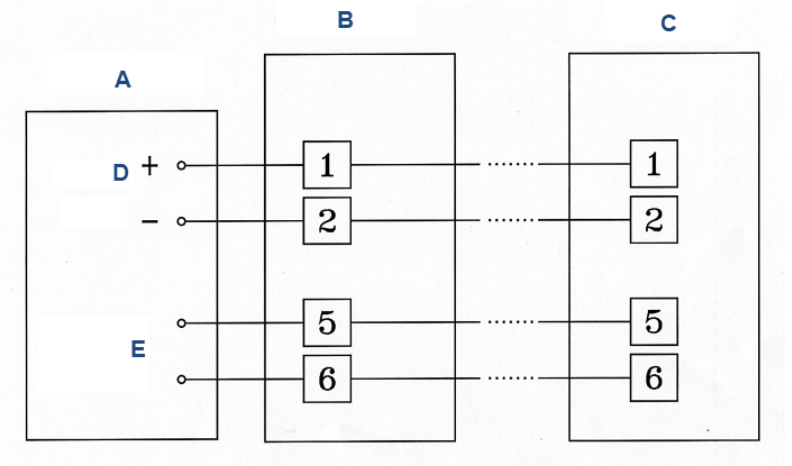
A.1 RS-485 communication network

Using the RS-485 network capability of the Rosemount 935 detector and additional software, it is possible to connect up to 32 detectors in an addressable system with four wires only (two for power and two for communication).

Using repeaters, the number of detectors can be much larger (32 detectors for each repeater) up to 247 on the same four wires. When using the RS-485 network, it is possible to read the detector status (Fault, Warning, and Alarm).

For more details, consult Emerson.

Figure A-6: RS-485 Networking for Wiring Option 3



A. Controller
B. First detector
C. Last detector
D. Power supply
E. RS-485 computer port

B Declaration of Conformity

ROSEMOUNT™ EU_R421K

EU Declaration of Conformity

We, at Rosemount Inc., 6021 Innovation Blvd, Shakopee, MN 55379, United States, declare under our sole responsibility that the product listed below is in conformity with the EC-Type Examination Certificate and with the following directives by application of the listed standards:

935 Open Path Combustible Gas Detector

Batch No:	**<Batch No.>**
Model No:	**<Model No.>**
SIRA 16ATEX1224X	
	Ex II 2 (2) G D Ex db eb ib [ib Gb] IIB + H2 T4 Gb Ex tb IIIC T135ºC Db Ta = -55 ºC to +65 ºC
Issued by the Notified Body:	CSA Group Netherlands B.V. Utrechtseweg 310 (B42), 6812AR ARNHEM, Netherlands 2813
Surveillance of Quality Assurance Production by:	SGS FIMKO OY, P.O. Box 30 (Särkiniementie 3), 00211 Helsinki, Finland 0598

Provisions of Directive		**Number and Date of Issue of Standard**
2014/34/EU	ATEX Directive	EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-28:2015, EN 60079-11:2012, EN 60079-31:2014
2014/30/EU	EMC Directive	EN 50270:2015
		EN 61000-6-3:2006+AMD1:2010
2011/65/EU	RoHS Directive	EN50581:2012

Approved By

Date:
January 8, 2021

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Quick Start Guide
00825-0100-4035, Rev. AA
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For more information: **www.emerson.com**

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