

CERTIFICATIONS for KPSI® Transducers

FM

UL

CE

DATE	REV	ECO	REVISION	BY	CHK	EOR
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION. SHT2 REVISED 1. P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
11/11/07	W	N/A	SHT2 REVISED 1. P= ENTITY PARAMETERS, ADDED "E" ENTITY PARAMETERS.	GKP	GWH	SMK
12/12/07	X	3901	SHT 1 ADDED VOLTAGE SUPPRESSION OPTIONS TO 300 SERIES TRANSDUCER. REVISED ALL P/NS, SAME ON SHT. 3 FOR SERIES 169 & 173	GKP	GWH	SMK
2/25/09	Y	4015	RMV EXCITATION 1,2. ADD FG,H,J. RMV PRESSURE CONN. 4,5,6,8.F.G. RMV ELEC. CONN. 3,K. RMV ENT PARAMETERS=1 B=2. ADD B=FG,H,J. DEL SHT 3 FROM DWG.	GKP		GWH
8/21/09	Z	4015	ADDED NOSE PIECE OPTIONS & REMOVED OPTION 2 (HIRSCHMANN)ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30. SHT 1 ONLY	GKP		GWH
10/7/09	AA	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS. SHT 1 ONLY. REVISED CLASS GROUPS ON SHT 3.	GKP		GWH
11/4/09	AB	4015	ADDED SHEET 4	GKP		GWH
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP		GWH
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "0" TO SERIES 27,28 & 30, LT MODEL SERIES & REFORMATTED PAGE LAYOUT SHEETS 1, 2 & 3.	GKP		GWH
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP		GWH
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS. INCREASED PRESSURE RANGE. SHT 1 ONLY	GKP		GWH
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES. MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD. SHT. 1 ONLY	GKP		GWH
6/21/13	AH	9164	ADDED LTR ORTION. SHT 1 ONLY	GKP		GWH
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP		GWH

The Transducers listed below are designed for installation in a Class I, Division 1, Groups A, B, C and D, Class II, Division 1, Groups E, F, and G, Class III, Division 1 hazardous location when connected to Associated Apparatus as described in note 1.

Series 27FABCDG (EEEE), 28FABCDG (EEEE), 30FABCDG (EEEE)

- F = material: S,T
- A = pressure type: 1,3,4,7,8,9
- B = excitation/output 3,4,E,F,G,H,J,K,L,M
- C = pressure connection: 1,2,7
- D = electrical connection: 0,1,4
- G = voltage suppression: A,B,C
- * EEEE = pressure range: 0-2000 PSI
- * Engraved in Pressure Field, not in p/n.

Series 700FABCDG (EEEE), 705FABCDG (EEEE), 710FABCDG (EEEE), 720FABCDG (EEEE), 730FABCDG (EEEE), 735FABCDG (EEEE), 745FABCDG (EEEE), 750FABCDG (EEEE)

- F = material: S,T
- A = pressure type: 1,3,4,7,8,9
- B = excitation/output: 3,4,E,F,G,H,J,K,L,M
- C = pressure connection: A,B,C,D,E,2,7
- D = electrical connection: 0,4,A,B
- G = voltage suppression: A,B,C
- * EEEE = pressure range: 0-304 PSI
- * Engraved in Pressure Field, not in p/n.

Series 300FABCDGEEEE, 320FABCDGEEEE, 330FABCDGEEEE, 335FABCDGEEEE

- F = material: S,T
- A = pressure type: 1,3,4,7,8,9
- B = excitation/output: 3,4,E,F,G,H,J,K,L,M
- C = pressure connection: A,B,C,D,E,2,7
- D = electrical connection: 0,4,A,B
- G = voltage suppression: A,B,C
- * EEEE = pressure range: 0-304 PSI
- * Engraved in Pressure Field, not in p/n.

Series LTABCDEFHGHIJK

- A = pressure connection: A,B,C,R,1,5,7
- B = excitation/output: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G
- C = cable type: A,B,C
- D = accuracy: A,B,C,D,E,F,T,S,R
- E = intrinsic safety approvals: A,B,C
- F = label: A,B,J,K
- G = material: S,T
- H = electrical connection: A,B,D,F,1,2
- I = pressure range: 0-2000 psi
- J = units: P,F,M,K
- K = pressure type: G,S,A

Notes: (applies to all figures on sht 2)

1. Associated Apparatus shall provide intrinsically safe connections which meet the following parameters.

- V_{max} ; For all barrier channels used.
- I_{max} ; Combined current for all barrier channels used.
- C_i ; For all barrier channels used.
- L_i ; For all barrier channels used.
- P_i ; Combined power for all barrier channels used.

$$V_{oc} \text{ or } V_T \leq V_{max} \quad C_a \geq C_i + C_{leads}^*$$

$$I_{sc} \text{ or } I_T \leq I_{max} \quad L_a \geq L_i + L_{leads}^*$$

$$P_o \text{ or } P_T < P_i$$

* Includes all cable connected to the barrier including the transducer cable.

Selected barriers must be third party approved as providing intrinsically safe circuits for the application, and have Voc or Vt not exceeding Vmax and Isc or It not exceeding Imax, and the Po of the barrier must be less than or equal to the Pmax of the intrinsically safe equipment, as shown in the Table of Entity parameters.

2. Control Room apparatus shall not generate in excess of 250V (U_{max}).


3. Installation should be in accordance with Article 504 in the *National Electrical Code*, ANSI/NFPA 70 and ISA RP-12.06.01

4. Float unused wires in cable. Insure that these wires are electrically isolated from other conductors.

WARNING!

AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

This document is the sole property of Measurement Specialties Inc. Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES ANGLES ±1 DECIMALS .XX = ±.02 .XXX = ±.005 RUNOUT ±.015 CONCENTRICITY ±.005 SURFACE FINISH IN MICROINCHES RMS 32 UNLESS SHOWN OTHERWISE	PART NUMBER			
	DRAWN	DATE		
				PRODUCT TITLE
				LIQUID LEVEL
	EOR	APPROVED	DATE	DRAWING TITLE
	GWH			CERTIFICATION DRAWING, FM
MATERIAL	SCALE	PROJECTION	DRAWING NUMBER	REVISION
	NTS	1	TA-6609	AH1
				SHEET
				1/4

DATE	REV	ECO	REVISION	BY	CHK	EOB
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION. SHT2 REVISED 1, P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/11/07	W	N/A	SHT2 REVISED 1, P= ENTITY PARAMETERS, ADDED "E" ENTITY PARAMETERS.	GKP	GWH	SMK
12/12/07	X	3901	SHT 1 ADDED VOLTAGE SUPPRESSION OPTIONS TO 300 SERIES TRANSDUCER, REVISED ALL P/Ns, SAME ON SHT. 3 FOR SERIES 169 & 173	GKP	GWH	SMK
2/25/09	Y	4015	RMV EXCITATION 1.2, ADD F.G.H.J. RMV PRESSURE CONN. 4.5,6,8.F.G. RMV ELEC. CONN. 3.K. RMV ENT PARAMETERS B-1 B-2, ADD B-F.G.H.J. DEL SHT 3 FROM DWG.	GKP		GWH
8/21/09	Z	4015	ADDED NOSE PIECE OPTIONS & REMOVED OPTION 2 (HIRSCHMANN) ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30. SHT 1 ONLY	GKP		GWH
10/7/09	AA	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS. SHT 1 ONLY. REVISED CLASS GROUPS ON SHT 3.	GKP		GWH
11/4/09	AB	4015	ADDED SHEET 4	GKP		GWH
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP		GWH
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "0" TO SERIES 27,28 & 30, LT MODEL SERIES. & REFORMATTED PAGE LAYOUT SHEETS 1, 2 & 3.	GKP		GWH
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP		GWH
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS. INCREASED PRESSURE RANGE. SHT 1 ONLY	GKP		GWH
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES, MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD. SHT. 1 ONLY	GKP		GWH
6/2/13	AH	9164	ADDED LTR ORTION, SHT 1 ONLY	GKP		GWH
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP		GWH

Class I, II, III, Div. 1 Groups A-G Hazardous Location → Entity Parameters

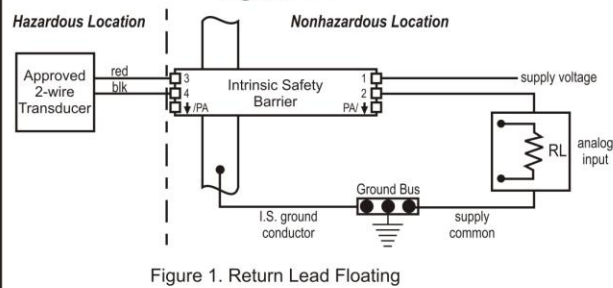


Figure 1. Return Lead Floating

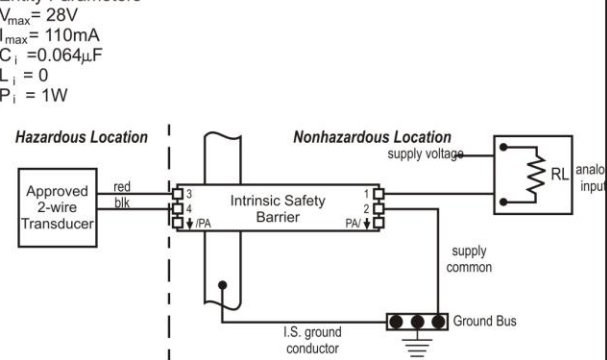


Figure 2. Return Lead Grounded

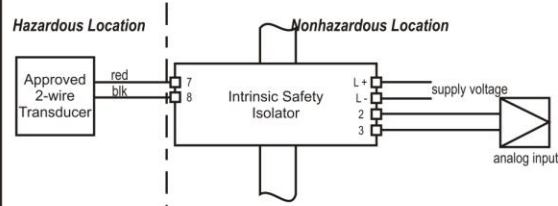


Figure 3. Field Circuit Isolated
Wiring diagram for 2-wire, 4-20mA output.

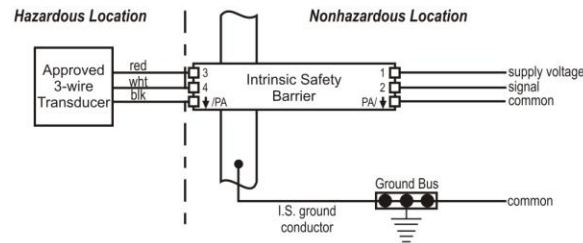


Figure 4. Wiring diagram for 3-wire, VDC output.

Class I, II, III, Div. 1 Groups C&D (only) Hazardous Location → Entity Parameters

WIRING DIAGRAMS SAME AS FIGURES 1,2,3 & 4

$V_{max} = 28V$
 $I_{max} = 186mA$
 $C_i = 0.064\mu F$
 $L_i = 0$
 $P_i = 1.3 W$



WARNING!

AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

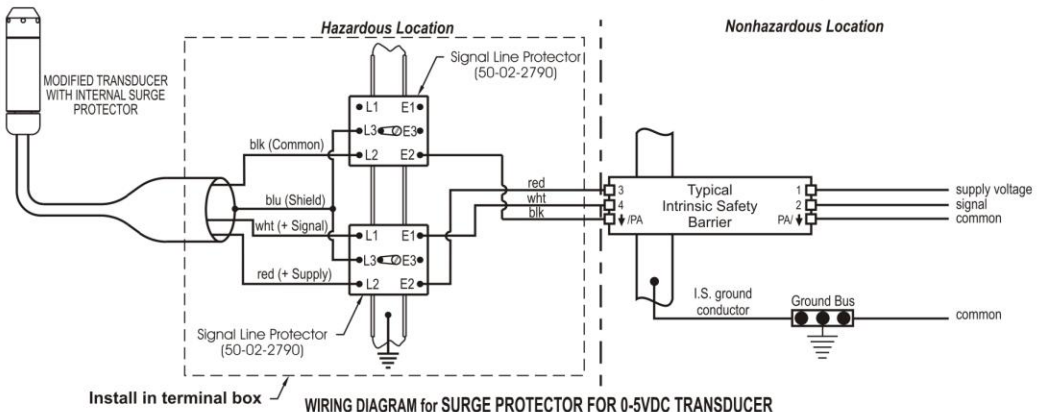
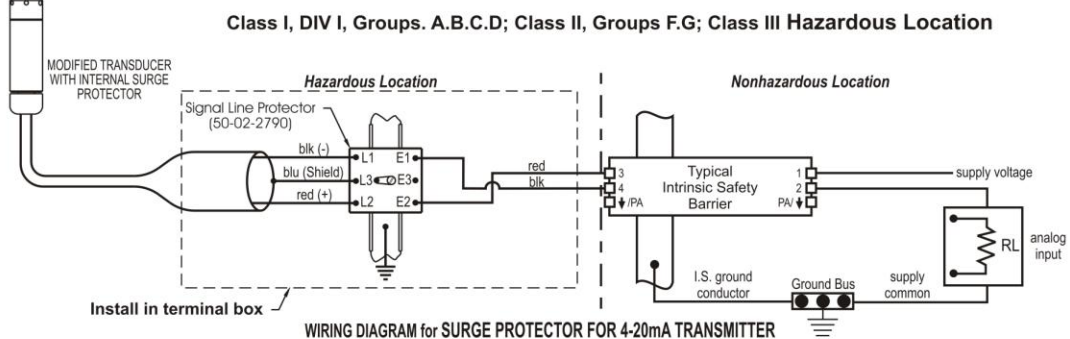
This document is the sole property of Measurement Specialties Inc.
Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES ANGLES ±1 DECIMALS .XX = ±.02 .XXX = ±.005 RUNOUT ±.015 CONCENTRICITY ±.005 SURFACE FINISH IN MICROINCHES RMS 32 UNLESS SHOWN OTHERWISE	PART NUMBER				
	DRAWN	DATE			
	CHF	4/24/00	PRODUCT TITLE		
	CHECKED	APPROVED	DATE	LIQUID LEVEL	
	EOB	APPROVED	DATE	DRAWING TITLE	
	GWH			CERTIFICATION DRAWING, FM	
MATERIAL	SCALE	PROJECTION	DRAWING NUMBER	REVISION	SHEET
	NTS		TA-6609	AH1	2/4

DATE	REV	ECO	REVISION	BY	CHK	EOR
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION. SHT2 REVISED 1. P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/11/07	W	N/A	SHT2 REVISED 1. P= ENTITY PARAMETERS, ADDED "E" ENTITY PARAMETERS.	GKP	GWH	SMK
12/12/07	X	3901	SHT 1 ADDED VOLTAGE SUPPRESSION OPTIONS TO 300 SERIES TRANSDUCER. REVISED ALL P/NS, SAME ON SHT. 3 FOR SERIES 169 & 173	GKP	GWH	SMK
2/25/09	Y	4015	RMV EXCITATION 1.2. ADD F.G.H.J. RMV PRESSURE CONN. 4.5.6.8.F.G. RMV ELEC. CONN. 3.K. RMV ENT PARAMETERS8-1 B-2, ADD B-F.G.H.J. DEL SHT 3 FROM DWG.	GKP		GWH
8/21/09	Z	4015	ADDED NOSE PIECE OPTIONS & REMOVED OPTION 2 (HIRSCHMANN)ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30. SHT 1 ONLY	GKP		GWH
10/7/09	AA	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS. SHT 1 ONLY. REVISED CLASS GROUPS ON SHT 3.	GKP		GWH
11/4/09	AB	4015	ADDED SHEET 4	GKP		GWH
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP		GWH
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "O" TO SERIES 27 28 & 30, LT MODEL SERIES. & REFORMATTED PAGE LAYOUT SHEETS 1, 2 & 3.	GKP		GWH
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP		GWH
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS. INCREASED PRESSURE RANGE. SHT 1 ONLY	GKP		GWH
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES. MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD. SHT. 1 ONLY	GKP		GWH
6/21/13	AH	9164	ADDED LTR ORTION, SHT 1 ONLY	GKP		GWH
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP		GWH

Notes:

1. Install in terminal box.
2. Installation should be in accordance with Article 504 in the *National Electric Code*, ANSI/NFPA 70 and ISA RP12.06.01
3. The surge protector part #50-02-2790 is a passive device and as a result the device has no capacitance or inductance and it's Vmax and Imax would be identical to the connected transducer.
However, when using the entity formula on page 2, note 1, the Ci value of the pressure transducer shall be used.
4. The surge protector part #50-02-2790 is used with all Series Transducers on sht. 1. **Not approved** for use in a class E environment.
5. No change to 50-02-2790 this rev. Label remains at rev AF.



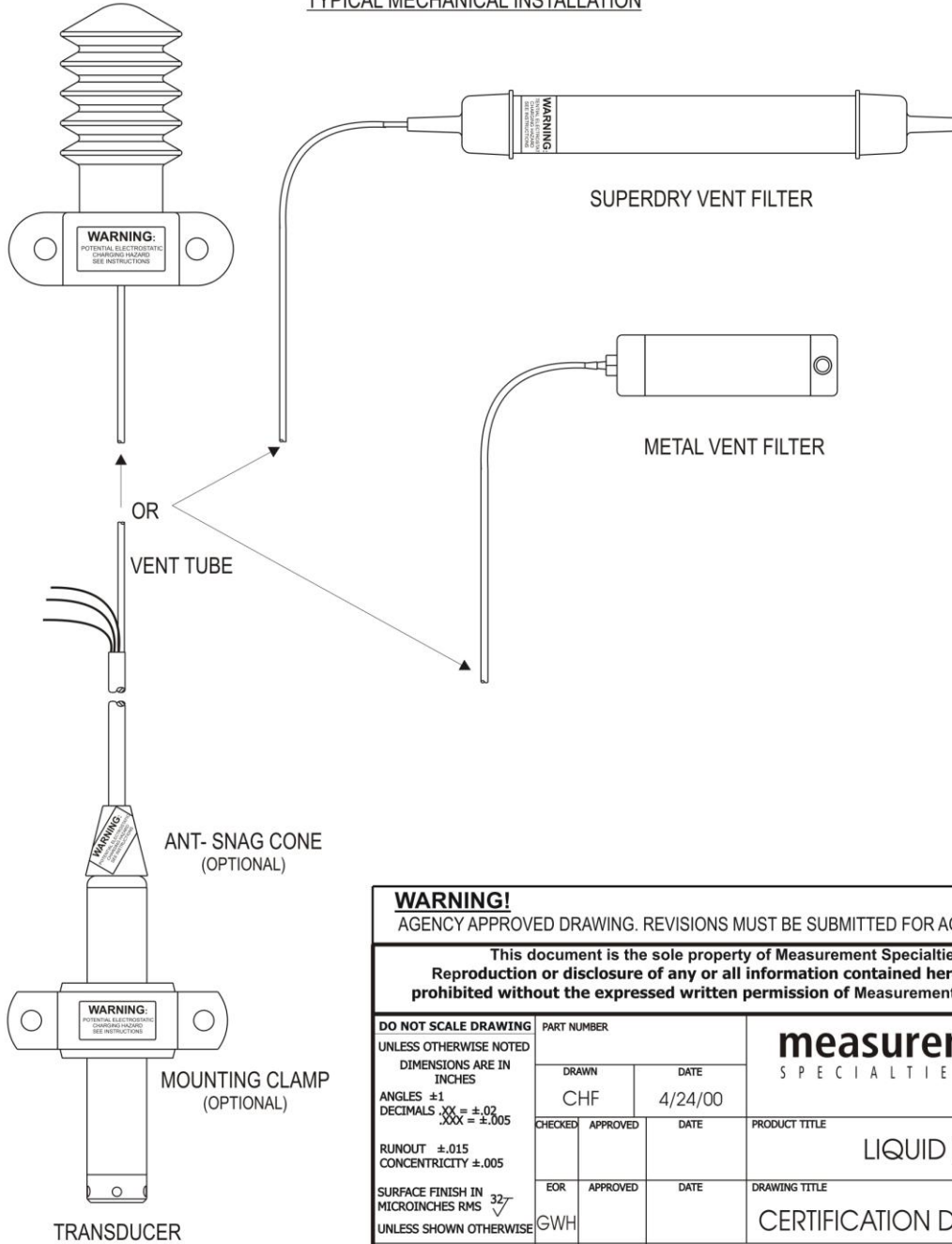
WARNING!
AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

This document is the sole property of Measurement Specialties Inc.
Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES ANGLES ±1 DECIMALS .XX = ±.02 .XXX = ±.005 RUNOUT ±.015 CONCENTRICITY ±.005 SURFACE FINISH IN MICROINCHES RMS 32 UNLESS SHOWN OTHERWISE	PART NUMBER		
	DRAWN	DATE	
	CHF	4/24/00	PRODUCT TITLE
	CHECKED	APPROVED	DATE
EOR	APPROVED	DATE	DRAWING TITLE
GWH			CERTIFICATION DRAWING, FM
MATERIAL	SCALE	PROJECTION	DRAWING NUMBER
	NTS		TA-6609
			REVISION
			AH1
			SHEET
			3/4

DATE	REV	ECO	REVISION	BY	CHK	EOB
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION. SHT2 REVISED 1. P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/11/07	W	N/A	SHT2 REVISED 1. P= ENTITY PARAMETERS, ADDED "E" ENTITY PARAMETERS.	GKP	GWH	SMK
12/12/07	X	3901	SHT 1 ADDED VOLTAGE SUPPRESSION OPTIONS TO 300 SERIES TRANSDUCER, REVISED ALL P/NS, SAME ON SHT. 3 FOR SERIES 169 & 173	GKP	GWH	SMK
2/25/09	Y	4015	RMV EXCITATION 1.2, ADD F.G.H.J. RMV PRESSURE CONN. 4.5.6.8.F.G. RMV ELEC. CONN. 3.K. RMV ENT PARAMETERS B-1 B-2, ADD B-F.G.H.J. DEL SHT 3 FROM DWG.	GKP		GWH
8/21/09	Z	4015	ADDED NOSE PIECE OPTIONS & REMOVED OPTION 2 (HIRSCHMANN) ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30. SHT 1 ONLY	GKP		GWH
10/7/09	AA	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS. SHT 1 ONLY. REVISED CLASS GROUPS ON SHT 3.	GKP		GWH
11/4/09	AB	4015	ADDED SHEET 4	GKP		GWH
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP		GWH
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "O" TO SERIES 27, 28 & 30, LT MODEL SERIES & REFORMATTED PAGE LAYOUT SHEETS 1, 2 & 3.	GKP		GWH
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP		GWH
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS, INCREASED PRESSURE RANGE, SHT 1 ONLY	GKP		GWH
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES, MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD, SHT. 1 ONLY	GKP		GWH
6/21/13	AH	9164	ADDED LTR ORTION, SHT 1 ONLY	GKP		GWH
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP		GWH

TYPICAL MECHANICAL INSTALLATION



WARNING!

AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

This document is the sole property of Measurement Specialties Inc.
Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING		PART NUMBER			
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES		DRAWN	DATE		
ANGLES ±1		CHF	4/24/00	PRODUCT TITLE	
DECIMALS .XX = ±.02 .XXX = ±.005		CHECKED	APPROVED	DATE	LIQUID LEVEL
RUNOUT ±.015		EOB	APPROVED	DATE	DRAWING TITLE
CONCENTRICITY ±.005		GWH			CERTIFICATION DRAWING, FM
SURFACE FINISH IN MICROINCHES RMS 32		MATERIAL	SCALE	PROJECTION	DRAWING NUMBER
UNLESS SHOWN OTHERWISE			NTS	⊲ ⊙	TA-6609
				REVISION	SHEET
				AH1	4/4

DATE	REV	ECO	REVISION	BY	CHK	EOB
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION. SHT2 REVISED 1. P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/10/07	W	N/A	HT2 REVISED 1. P= ENTITY PARAMETERS	GKP	GWH	SMK
1/11/07	X	N/A	ADDED "E" ENTITY PARAMETERS ON SHT 2.	GKP	GWH	SMK
12/12/07	Y	3901	SHT 1 ADDED VOLTAGE SUPPRESSOR OPTIONS TO 300 SERIES TRANSDUCERS. REVISED ALL P'Ns. SAME ON SHT. 3 FOR SERIES 169 & 173. DELETED 500 SERIES. WAS 6 SHT. DWG.	GKP	GWH	SMK
2/24/09	Z	4015	RMV EXCITATION 1,2. ADD F.G.H.J. RMV PRESSURE CONN. 4,5,6,8.F.G. RMV ELEC. CONN. 3,K. RMV ENT PARAMETERS B=1,B=2. ADD B=F,G,H,J. DEL SHT 3 FROM DWG.	GKP	GWH	
8/21/09	AA	4015	ADDED NOSE PIECE OPTIONS. REMOVED OPTION 2 (HIRSCHMANN) ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30. SHT 1 ONLY	GKP	GWH	
10/7/09	AB	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS. SHT 1 ONLY. REVISED CLASS GROUPS ON SHT 3. GENERAL PRESENTATION REVISION SHTS. 1&2.	GKP	GWH	
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP	GWH	
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "O" TO SERIES 27,28 & 30. LT MODEL SERIES SHT 1 ONLY AND ADDED SHEET 4	GKP	GWH	
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP	GWH	
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS. INCREASED PRESSURE RANGE. SHT 1 ONLY	GKP	GWH	
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES. MOVED PRESSURE RANGE FROM P'N TO PRESSURE RANGE FIELD.	GKP	GWH	
6/21/13	AH	9164	ADDED LTR. SHT 1 ONLY	GKP	GWH	
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP	GWH	

The Transducers listed below are designed for installation in a Class I, Division 1, Groups A, B, C and D, Class II, Division 1, Groups E, F, and G, Class III, Division 1 hazardous location when connected to Associated Apparatus as described in note 1.

Series 27FABCDG (EEEE), 28FABCDG (EEEE), 30FABCDG (EEEE)

- F = material: S,T
- A = pressure type: 1,3,4,7,8,9
- B = excitation/output 3,4,E,F,G,H,J,K,L,M
- C = pressure connection: 1,2,7
- D = electrical connection: 0,1,4
- G = voltage suppression: A,B,C
- * EEEE = pressure range: 0-2000 PSI
- * Engraved in Pressure Field, not in p/n.

Series 700FABCDG (EEEE), 705FABCDG (EEEE), 710FABCDG (EEEE), 720FABCDG (EEEE), 730FABCDG (EEEE), 735FABCDG (EEEE), 745FABCDG (EEEE), 750FABCDG (EEEE)

- F = material: S,T
- A = pressure type: 1,3,4,7,8,9
- B = excitation/output: 3,4,E,F,G,H,J,K,L,M
- C = pressure connection: A,B,C,D,E,2,7
- D = electrical connection: 0,4,A,B
- G = voltage suppression: A,B,C
- * EEEE = pressure range: 0-304 PSI
- * Engraved in Pressure Field, not in p/n.

Series 300FABCDGEEEE, 320FABCDGEEEE, 330FABCDGEEEE, 335FABCDGEEEE

- F = material: S,T
- A = pressure type: 1,3,4,7,8,9
- B = excitation/output: 3,4,E,F,G,H,J,K,L,M
- C = pressure connection: A,B,C,D,E,2,7
- D = electrical connection: 0,4,A,B
- G = voltage suppression: A,B,C
- * EEEE = pressure range: 0-304 PSI
- * Engraved in Pressure Field, not in p/n.

Series LTABCDEFHGHIJK

- A = pressure connection: A,B,C,R,1,5,7
- B = excitation/output: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G
- C = cable type: A,B,C
- D = accuracy: A,B,C,D,E,F,T,S,R
- E = intrinsic safety approvals: A,B,C
- F = label: A,B,J,K
- G = material: S,T
- H = electrical connection: A,B,D,F,1,2
- I = pressure range: 0-2000 psi
- J = units: P,F,M,K
- K = pressure type: G,S,A

Notes: (applies to all figures on sht 2)

1. Associated Apparatus shall provide intrinsically safe connections which meet the following parameters.

- V_{max} ; For all barrier channels used.
- I_{max} ; Combined current for all barrier channels used.
- C_i ; For all barrier channels used.
- L_i ; For all barrier channels used.
- P_i ; Combined power for all barrier channels used.

$$V_{oc} \text{ or } V_T \leq V_{max} \quad C_a \geq C_i + C_{leads}^*$$

$$I_{sc} \text{ or } I_T \leq I_{max} \quad L_a \geq L_i + L_{leads}^*$$

$$P_o \text{ or } P_T < P_i$$

* Includes all cable connected to the barrier including the transducer cable.

Selected barriers must be third party approved as providing intrinsically safe circuits for the application, and have Voc or Vt not exceeding Vmax and Isc or It not exceeding Imax, and the Po of the barrier must be less than or equal to the Pmax of the intrinsically safe equipment, as shown in the Table of Entity parameters.

2. Control Room apparatus shall not generate in excess of 250V (U_{max}).

3. Installation should be in accordance with Article 504 in the *National Electrical Code*, ANSI/NFPA 70 and ISA RP-12.06.01

4. Float unused wires in cable. Insure that these wires are electrically isolated from other conductors.

WARNING!

AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

This document is the sole property of Measurement Specialties Inc. Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES ANGLES ±1 DECIMALS .XX = ±.02 .XXX = ±.005 RUNOUT ±.015 CONCENTRICITY ±.005 SURFACE FINISH IN MICROINCHES RMS 32 UNLESS SHOWN OTHERWISE	PART NUMBER		measurement SPECIALTIES
	DRAWN CHF	DATE 4/24/00	
MATERIAL	CHECKED GWH	APPROVED GWH	PRODUCT TITLE LIQUID LEVEL
	SCALE NTS	PROJECTION 1	DRAWING TITLE CERTIFICATION DRAWING, UL
	DRAWING NUMBER TA-6610	REVISION AH1	SHEET 1/4

DATE	REV	ECO	REVISION	BY	CHK	EOR
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION. SHT2 REVISED 1. P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/10/07	W	N/A	HT2 REVISED 1. P= ENTITY PARAMETERS	GKP	GWH	SMK
1/11/07	X	N/A	ADDED "E" ENTITY PARAMETERS ON SHT 2.	GKP	GWH	SMK
12/12/07	Y	3901	SHT 1 ADDED VOLTAGE SUPPRESSOR OPTIONS TO 300 SERIES TRANSDUCERS. REVISED ALL P/Ns, SAME ON SHT. 3 FOR SERIES 169 & 173. DELETED 500 SERIES, WAS 6 SHT. DWG.	GKP	GWH	SMK
2/24/09	Z	4015	RMV EXCITATION 1,2, ADD F.G.H.J. RMV PRESSURE CONN. 4,5,6,8,F,G. RMV ELEC. CONN. 3,K. RMV ENT PARAMETERS B=1,B=2, ADD B=F,G,H,J. DEL SHT 3 FROM DWG.	GKP	GWH	SMK
8/21/09	AA	4015	ADDED NOSE PIECE OPTIONS, REMOVED OPTION 2 (HIRSCHMANN) ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30, SHT 1 ONLY	GKP	GWH	SMK
10/7/09	AB	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS, SHT 1 ONLY. REVISED CLASS GROUPS ON SHT 3. GENERAL PRESENTATION REVISION SHTS. 1&2.	GKP	GWH	SMK
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP	GWH	SMK
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "0" TO SERIES 27,28 & 30, LT MODEL SERIES SHT 1 ONLY AND ADDED SHEET 4	GKP	GWH	SMK
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP	GWH	SMK
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS. INCREASED PRESSURE RANGE, SHT 1 ONLY	GKP	GWH	SMK
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES, MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD.	GKP	GWH	SMK
6/21/13	AH	9164	ADDED LTR, SHT 1 ONLY	GKP	GWH	SMK
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP	GWH	SMK

Class I, II, III, Div. 1 Groups A-G Hazardous Location → Entity Parameters

$V_{max} = 28V$
 $I_{max} = 110mA$
 $C_i = 0.064\mu F$
 $L_i = 0$
 $P_i = 1W$

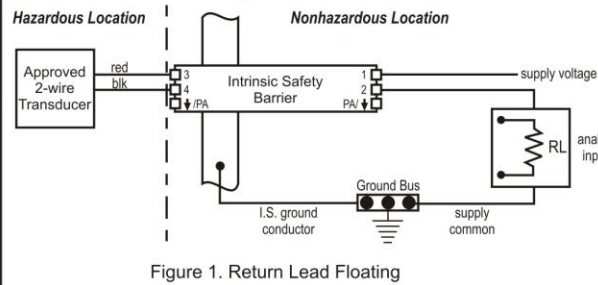


Figure 1. Return Lead Floating

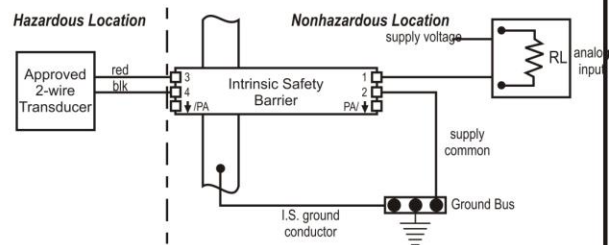


Figure 2. Return Lead Grounded

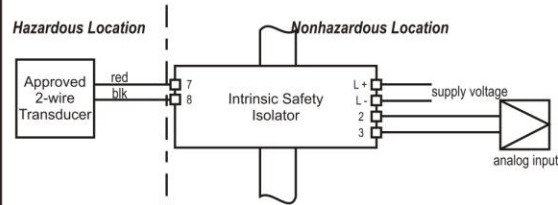


Figure 3. Field Circuit Isolated

Wiring diagram for 2-wire, 4-20mA output.

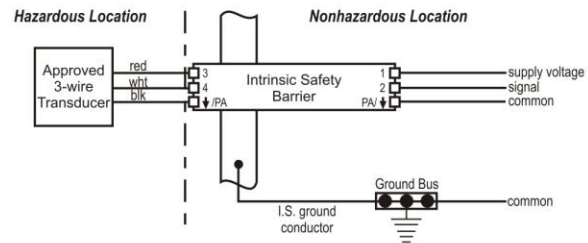


Figure 4. Wiring diagram for 3-wire, VDC output.

Class I, II, III, Div. 1 Groups C&D (only) Hazardous Location → Entity Parameters

WIRING DIAGRAMS SAME AS FIGURES 1,2,3 & 4

$V_{max} = 28V$
 $I_{max} = 186mA$
 $C_i = 0.064\mu F$
 $L_i = 0$
 $P_i = 1.3 W$



WARNING!

AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

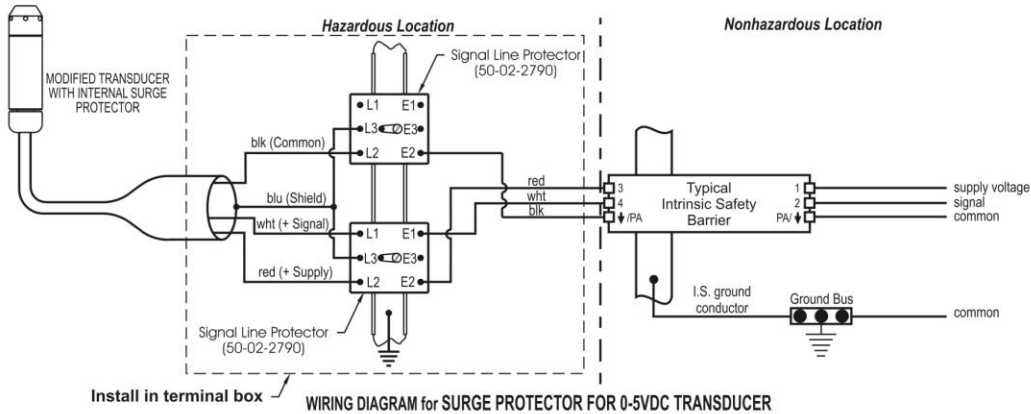
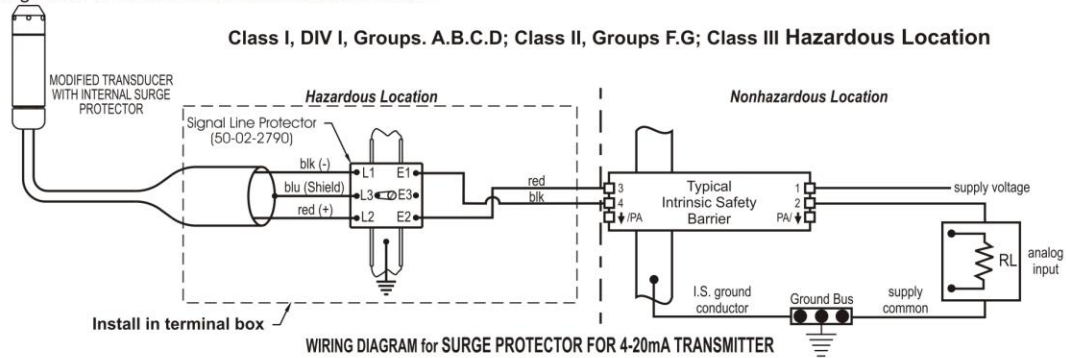
This document is the sole property of Measurement Specialties Inc.
 Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES ANGLES ±1 DECIMALS .XX = ±.02 .XXX = ±.005 RUNOUT ±.015 CONCENTRICITY ±.005 SURFACE FINISH IN MICROINCHES RMS 32 UNLESS SHOWN OTHERWISE	PART NUMBER		
	DRAWN	DATE	
	CHF	4/24/00	PRODUCT TITLE
	CHECKED	APPROVED	DATE
EOR	APPROVED	DATE	DRAWING TITLE
GWH			CERTIFICATION DRAWING, UL
MATERIAL	SCALE	PROJECTION	DRAWING NUMBER
	NTS		TA-6610
			REVISION
			AH1
			SHEET
			2/4

DATE	REV	ECO	REVISION	BY	CHK	EOR
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION, SHT2 REVISED 1, P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/10/07	W	N/A	HT2 REVISED 1, P= ENTITY PARAMETERS	GKP	GWH	SMK
1/11/07	X	N/A	ADDED "E" ENTITY PARAMETERS ON SHT 2.	GKP	GWH	SMK
12/12/07	Y	3901	SHT 1 ADDED VOLTAGE SUPPRESSOR OPTIONS TO 300 SERIES TRANSDUCERS, REVISED ALL P/Ns, SAME ON SHT. 3 FOR SERIES 169 & 173, DELETED 500 SERIES, WAS 6 SHT. DWG.	GKP	GWH	SMK
2/24/09	Z	4015	RMV EXCITATION 1,2, ADD F.G.H.J. RMV PRESSURE CONN. 4,5,6,8,F,G. RMV ELEC. CONN. 3,K. RMV ENT PARAMETERS B=1,B=2, ADD B=F,G,H,J. DEL SHT 3 FROM DWG.	GKP	GWH	SMK
8/21/09	AA	4015	ADDED NOSE PIECE OPTIONS, REMOVED OPTION 2 (HIRSCHMANN) ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30, SHT 1 ONLY	GKP	GWH	SMK
10/7/09	AB	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS, SHT 1 ONLY, REVISED CLASS GROUPS ON SHT 3, GENERAL PRESENTATION REVISION SHTS. 1&2.	GKP	GWH	SMK
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP	GWH	SMK
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "O" TO SERIES 27,28 & 30, LT MODEL SERIES SHT 1 ONLY AND ADDED SHEET 4	GKP	GWH	SMK
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP	GWH	SMK
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS, INCREASED PRESSURE RANGE, SHT 1 ONLY	GKP	GWH	SMK
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES, MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD.	GKP	GWH	SMK
6/21/13	AH	9164	ADDED LTR, SHT 1 ONLY	GKP	GWH	SMK
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP	GWH	SMK

Notes:

1. Install in terminal box.
2. Installation should be in accordance with Article 504 in the *National Electric Code*, ANSI/NFPA 70 and ISA RP12.06.01
3. The surge protector part #50-02-2790 is a passive device and as a result the device has no capacitance or inductance and it's Vmax and Imax would be identical to the connected transducer.
However, when using the entity formula on page 2, note 1, the Ci value of the pressure transducer shall be used.
4. The surge protector part #50-02-2790 is used with all Series Transducers on sht. 1. **Not approved** for use in a class E environment.
5. No change to 50-02-2790 this rev. Label remains at rev AF.



WARNING!

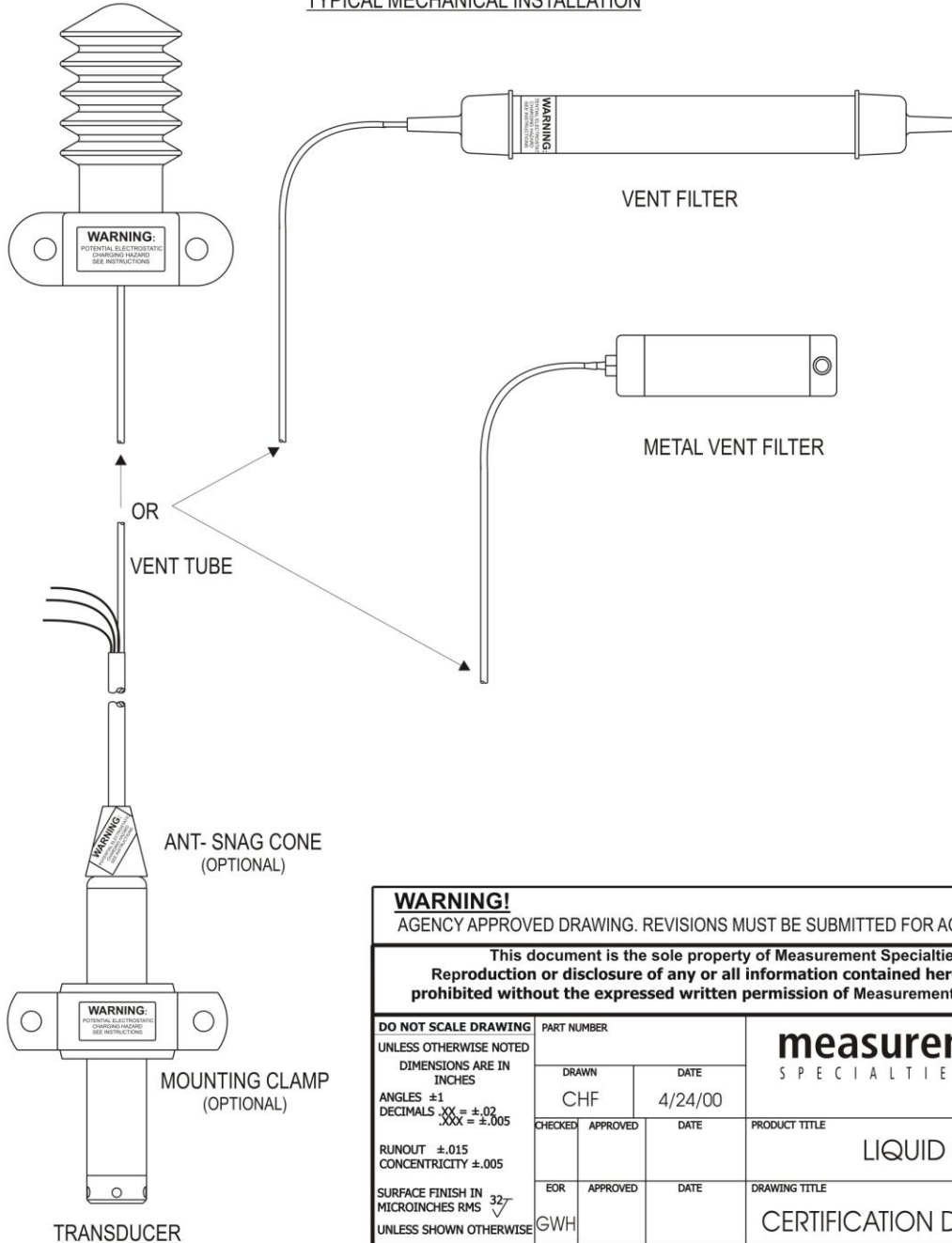
AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

This document is the sole property of Measurement Specialties Inc.
Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

<p>DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES ANGLES ±1 DECIMALS .XX = ±.02 .XXX = ±.005 RUNOUT ±.015 CONCENTRICITY ±.005 SURFACE FINISH IN MICROINCHES RMS 32 UNLESS SHOWN OTHERWISE</p>	PART NUMBER				
	DRAWN	DATE			
	CHF	4/24/00	PRODUCT TITLE		
	LIQUID LEVEL				
MATERIAL	SCALE	PROJECTION	DRAWING NUMBER	REVISION	SHEET
	NTS	⊕	TA-6610	AH1	3/4

DATE	REV	ECO	REVISION	BY	CHK	EOR
7/28/06	V	N/A	SHT 1 ADDED "E" TO B=EXCITATION, SHT2 REVISED 1. P= ENTITY PARAMETERS & 2. STAHL APPARATUS	GKP	GWH	SMK
1/10/07	W	N/A	HT2 REVISED 1, P= ENTITY PARAMETERS	GKP	GWH	SMK
1/11/07	X	N/A	ADDED "E" ENTITY PARAMETERS ON SHT 2.	GKP	GWH	SMK
12/12/07	Y	3901	SHT 1 ADDED VOLTAGE SUPPRESSOR OPTIONS TO 300 SERIES TRANSDUCERS, REVISED ALL P/Ns, SAME ON SHT. 3 FOR SERIES 169 & 173, DELETED 500 SERIES, WAS 6 SHT. DWG.	GKP	GWH	SMK
2/24/09	Z	4015	RMV EXCITATION 1,2, ADD F,G,H,J, RMV PRESSURE CONN. 4,5,6,8,F,G, RMV ELEC. CONN. 3,K, RMV ENT PARAMETERS B=1,B=2, ADD B=F,G,H,J, DEL SHT 3 FROM DWG.	GKP	GWH	SMK
8/21/09	AA	4015	ADDED NOSE PIECE OPTIONS, REMOVED OPTION 2 (HIRSCHMANN) ELECTRICAL CONNECTION FROM SERIES 27, 28, & 30, SHT 1 ONLY	GKP	GWH	SMK
10/7/09	AB	4015	CORRECTED ORDER OF ALL SERIES LETTER CONFIGURATIONS, SHT 1 ONLY, REVISED CLASS GROUPS ON SHT 3, GENERAL PRESENTATION REVISION SHTS. 1&2.	GKP	GWH	SMK
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP	GWH	SMK
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "O" TO SERIES 27,28 & 30, LT MODEL SERIES SHT 1 ONLY AND ADDED SHEET 4	GKP	GWH	SMK
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP	GWH	SMK
10/14/11	AF	8629	SERIES LT: ADDED PRESSURE & ELECTRICAL CONNECTION OPTIONS, INCREASED PRESSURE RANGE, SHT 1 ONLY	GKP	GWH	SMK
4/1/13	AG	9164	ADDED OPTIONS TO ALL SERIES, MOVED PRESSURE RANGE FROM P/N TO PRESSURE RANGE FIELD.	GKP	GWH	SMK
6/2/13	AH	9164	ADDED LTR, SHT 1 ONLY	GKP	GWH	SMK
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP	GWH	SMK

TYPICAL MECHANICAL INSTALLATION



WARNING!

AGENCY APPROVED DRAWING. REVISIONS MUST BE SUBMITTED FOR AGENCY APPROVAL.

This document is the sole property of Measurement Specialties Inc. Reproduction or disclosure of any or all information contained herein is strictly prohibited without the expressed written permission of Measurement Specialties Inc.

DO NOT SCALE DRAWING		PART NUMBER			
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES		DRAWN	DATE		
ANGLES ±1		CHF	4/24/00	LIQUID LEVEL	
DECIMALS .XX = ±.02 .XXX = ±.005		CHECKED	APPROVED	DATE	DRAWING TITLE
RUNOUT ±.015		EOR	APPROVED	DATE	CERTIFICATION DRAWING, UL
CONCENTRICITY ±.005		GWH			
SURFACE FINISH IN MICROINCHES RMS 32		MATERIAL	SCALE	PROJECTION	DRAWING NUMBER
UNLESS SHOWN OTHERWISE			NTS	⊲ ⊙	TA-6610
				REVISION	SHEET
				AH1	4/4

CE Certificate of Compliance

June 18, 2014

We,

Measurement Specialties Inc.

certify that the products listed below:

Series 27, 28, 30
Series 300DS, 320, 330, 335, 342
Series 700, 705, 710, 720, 730, 735, 745, 750

comply with the specifications published in the following standard:

EN 61326-1:2006 & EN 61326-2-3:2006
Immunity & Emissions Standards

Including requirements of:

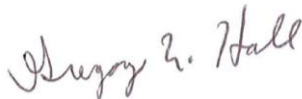
EN 61000-4-2	Electrostatic Discharge Immunity
EN 61000-4-3	Radiated Electromagnetic Field Immunity
EN 61000-4-4	Electrical Fast Transient/Burst Immunity
EN 61000-4-5	Surge Immunity
EN 61000-4-6	Conducted Radio-Frequency Immunity
EN 61000-4-8	Magnetic Field Immunity
CISPR11	Electromagnetic Disturbance Characteristics

Per the provisions of directive 89/336/EEC as amended by 92/31/EEC and 93/68/EEC.

97/23/EC Pressure Equipment Directive

RoHS2 – These products comply with Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Certified by:



Greg Hall
Senior Design Engineer
Email: greg.hall@meas-spec.com