CERTIFICATIONS FOR KPSI TRANSDUCERS

CERTIFICATIONS for KPSI Transducers
FM
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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 PARAMETERSB=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)ELECTRIAL 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 LTABCDEFGHIIIJK
- 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
- III = 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.

Voc or $V_T \leq V_{max}$ $\quad C_a \geq C_i + C_{leads}$*
Isc or $I_T \leq I_{max}$ $\quad L_a \geq L_i + L_{leads}$*
Po 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.

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		CHECKED	APPROVED / DATE	PRODUCT TITLE: LIQUID LEVEL
		EOR: GWH	APPROVED / DATE	DRAWING TITLE: CERTIFICATION DRAWING, FM
MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6609	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
1/11/07	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 PARAMETERSB=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)ELECTRIAL 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

Class I, II, III, Div. 1 Groups A-G Hazardous Location → Entity Parameters
Figures 1-4

V_{max}= 28V
I_{max}= 110mA
C_i =0.064µF
L_i = 0
P_i = 1W

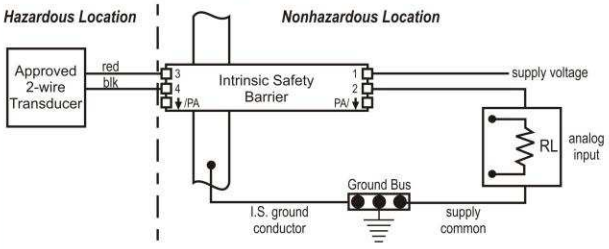

Figure 1. Return Lead Floating

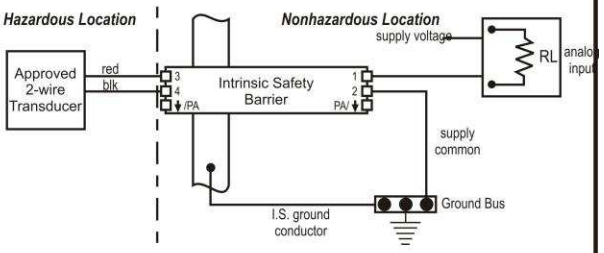

Figure 2. Return Lead Grounded

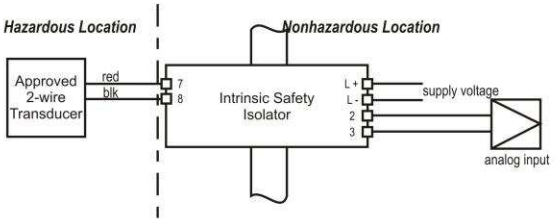

Figure 3. Field Circuit Isolated

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

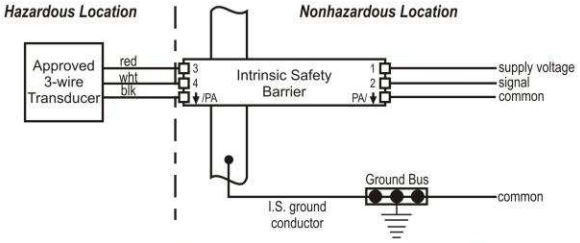

Figure 4. Wiring diagram for 3-wire, VDC output.

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 =0.064µF
L_i = 0
P_i = 1.3 W

AE

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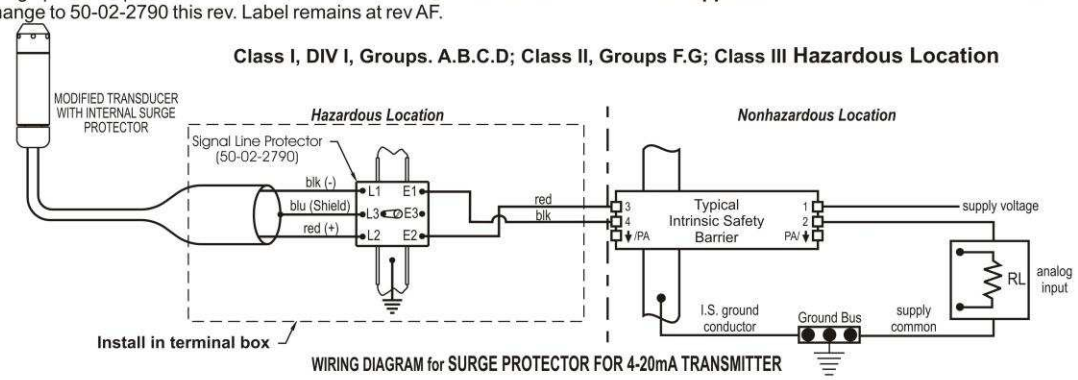
	DRAWN: CHF	DATE: 4/24/00		
	CHECKED	APPROVED	DATE	PRODUCT TITLE: LIQUID LEVEL
	EOR: GWH	APPROVED	DATE	DRAWING TITLE: CERTIFICATION DRAWING, FM
MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6609	REVISION: AH1 / SHEET: 2/4

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
1/11/07	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 PARAMETERSB=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)ELECTRIAL 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

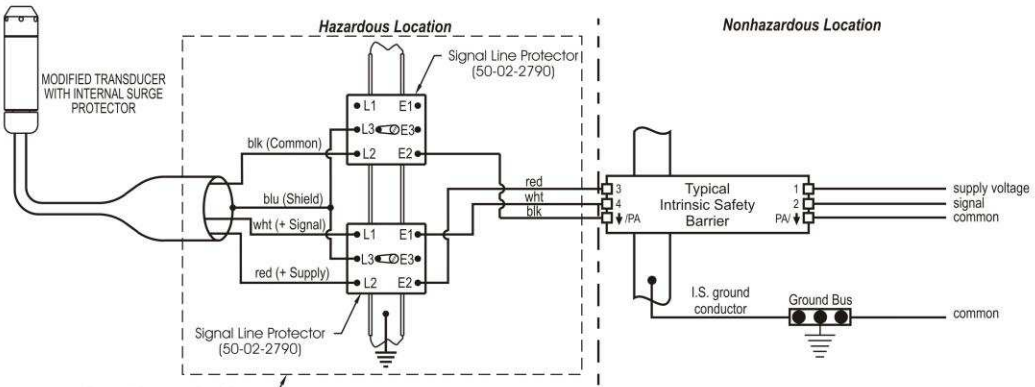
Notes:

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.

Class I, DIV I, Groups. A.B.C.D; Class II, Groups F.G; Class III Hazardous Location



WIRING DIAGRAM for SURGE PROTECTOR FOR 4-20mA TRANSMITTER



WIRING DIAGRAM for SURGE PROTECTOR FOR 0-5VDC TRANSDUCER

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	DRAWN: CHF	DATE: 4/24/00		
	CHECKED	APPROVED	DATE	PRODUCT TITLE: LIQUID LEVEL
	EOR: GWH	APPROVED	DATE	DRAWING TITLE: CERTIFICATION DRAWING, FM
MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6609	REVISION: AH1 / SHEET: 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
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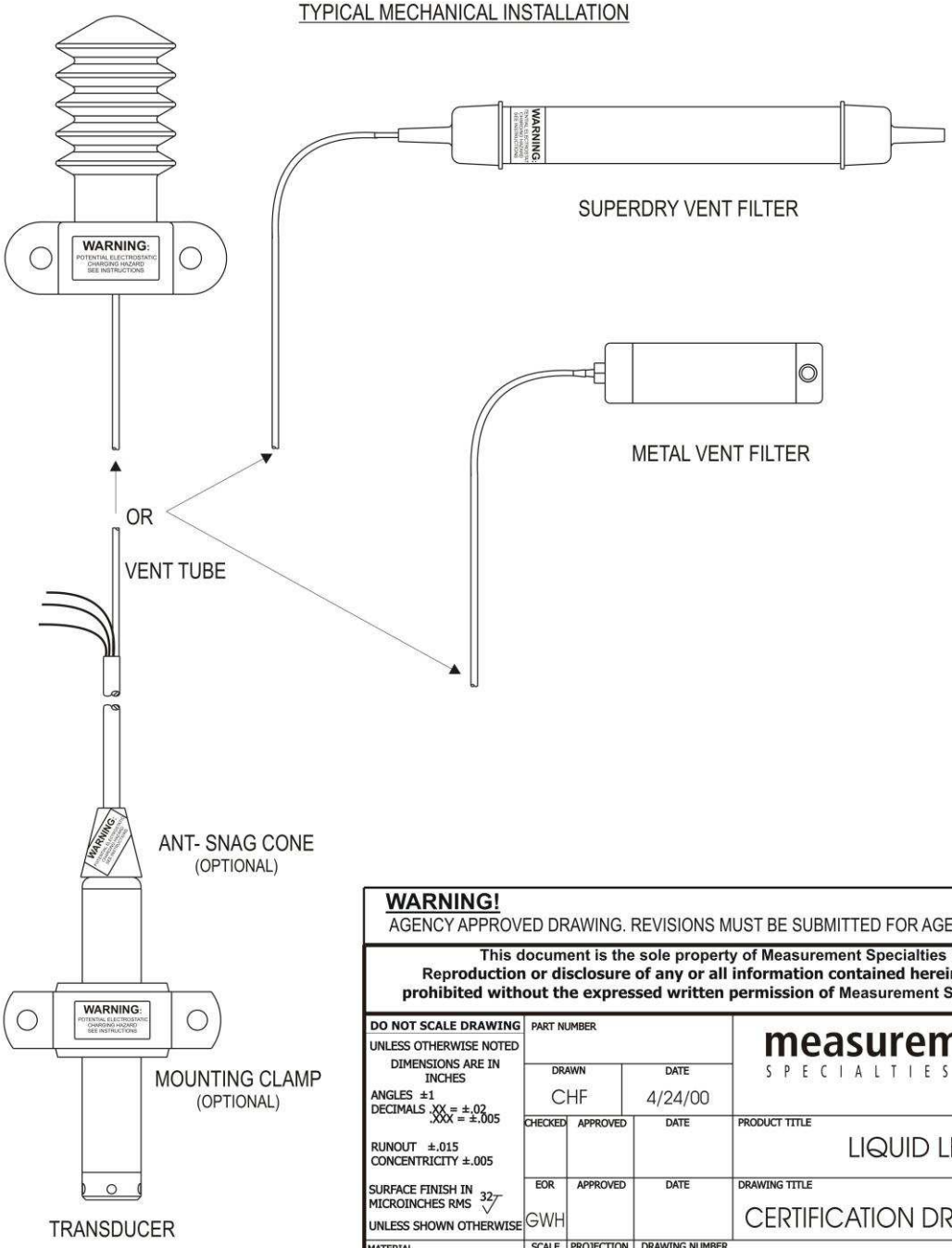
9/20/10	AC	4210	REVISED BORDER FORMAT FROM ESTERLINE TO MEASUREMENT SPECIALTIES.	GKP		GWH
9/20/10	AD	4218	ADDED ELECTRICAL CONNECTION "0" TO SERIES 27,28 & 30, LT MODEL SERIES & REFORMATTED PAGE LAYOUT SHEETS 1, 2 & 3.	GKP		GWH
4/22/11	AE	4218	CLARIFIED ENTITY PARAMETERS, SHT 2 ONLY	GKP		GWH
10/14/11	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

TYPICAL MECHANICAL INSTALLATION



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MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6609	REVISION: AH1 SHEET: 4/4

DATE	REV	ECO	REVISION	BY	CHK	EOR
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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 PARAMETERSB=1 B=2, ADD B=F,G,H,J. DEL SHT 3 FROM DWG.	GKP		GWH
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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 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)
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- 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
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- 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 LTABCDEFGHIIIJK
- 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
- III = 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} or $V_T \le V_{max}$ $\quad C_a \ge C_i + C_{leads}$*
I_{sc} or $I_T \le I_{max}$ $\quad L_a \ge L_i + L_{leads}$*
P_o 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.

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		CHECKED	APPROVED / DATE	PRODUCT TITLE: LIQUID LEVEL
		EOR: GWH	APPROVED / DATE	DRAWING TITLE: CERTIFICATION DRAWING, UL
MATERIAL	SCALE: NTS	PROJECTION	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 PARAMETERSB=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)ELECTRIAL 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 "0" 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

Class I, II, III, Div. 1 Groups A-G Hazardous Location → Entity Parameters
Figures 1-4

V_{max} = 28V
I_{max} = 110mA
C_i = 0.064µF
L_i = 0
P_i = 1W

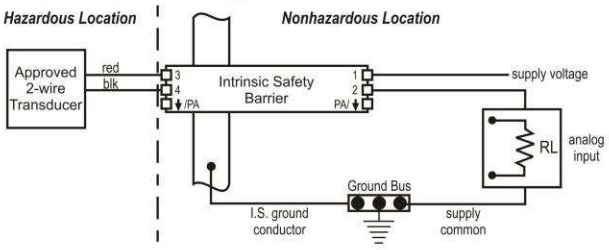

Figure 1. Return Lead Floating

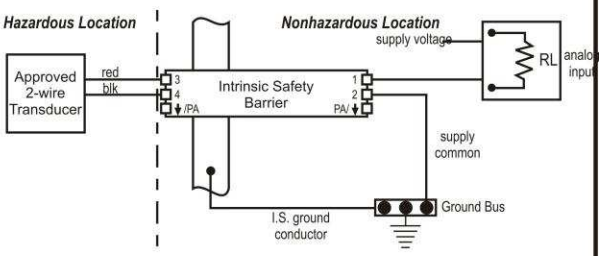

Figure 2. Return Lead Grounded

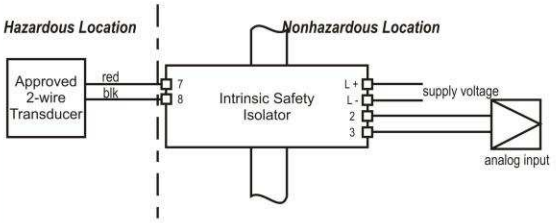

Figure 3. Field Circuit Isolated

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

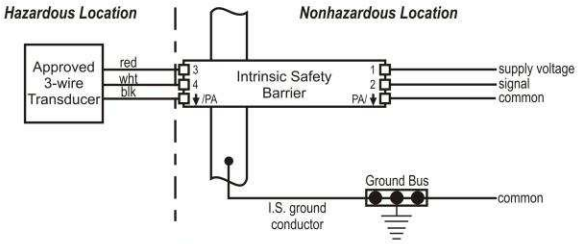

Figure 4. Wiring diagram for 3-wire, VDC output.

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 = 0.064µF
L_i = 0
P_i = 1.3 W

AE

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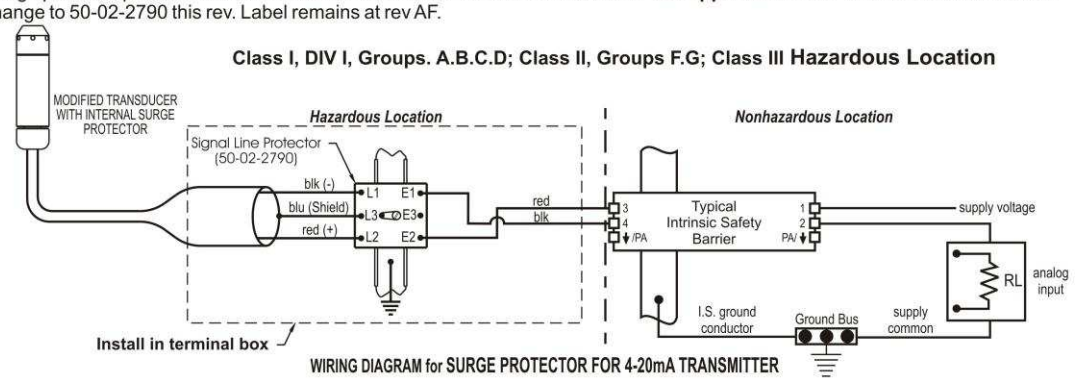
	DRAWN: CHF	DATE: 4/24/00		
	CHECKED	APPROVED	DATE	PRODUCT TITLE: LIQUID LEVEL
	EOR: GWH	APPROVED	DATE	DRAWING TITLE: CERTIFICATION DRAWING, UL
MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6610	REVISION: AH1 / SHEET: 2/4

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 PARAMETERSB=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)ELECTRIAL 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 "0" 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

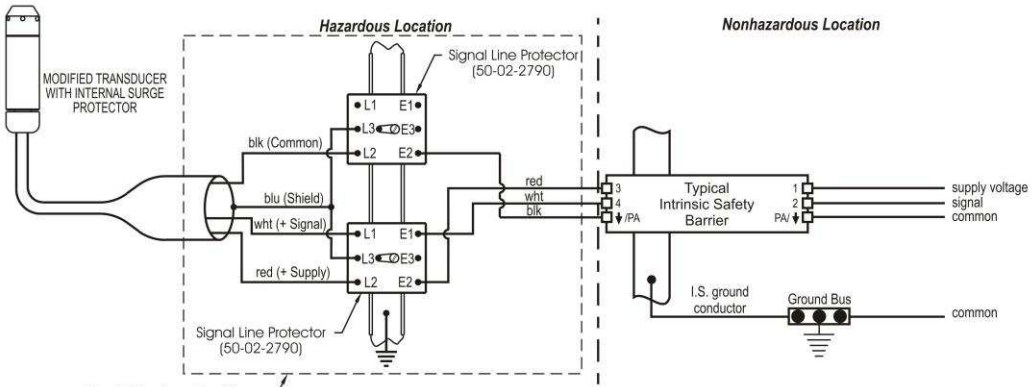
Notes:

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.

Class I, DIV I, Groups. A.B.C.D; Class II, Groups F.G; Class III Hazardous Location



WIRING DIAGRAM for SURGE PROTECTOR FOR 4-20mA TRANSMITTER



WIRING DIAGRAM for SURGE PROTECTOR FOR 0-5VDC TRANSDUCER

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	DRAWN: CHF	DATE: 4/24/00		
	CHECKED	APPROVED	DATE	PRODUCT TITLE: LIQUID LEVEL
	EOR: GWH	APPROVED	DATE	DRAWING TITLE: CERTIFICATION DRAWING, UL
MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6610	REVISION: AH1 / SHEET: 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
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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 PARAMETERSB=1,B=2, ADD B=F,G,H,J. DEL SHT 3 FROM DWG.	GKP		GWH
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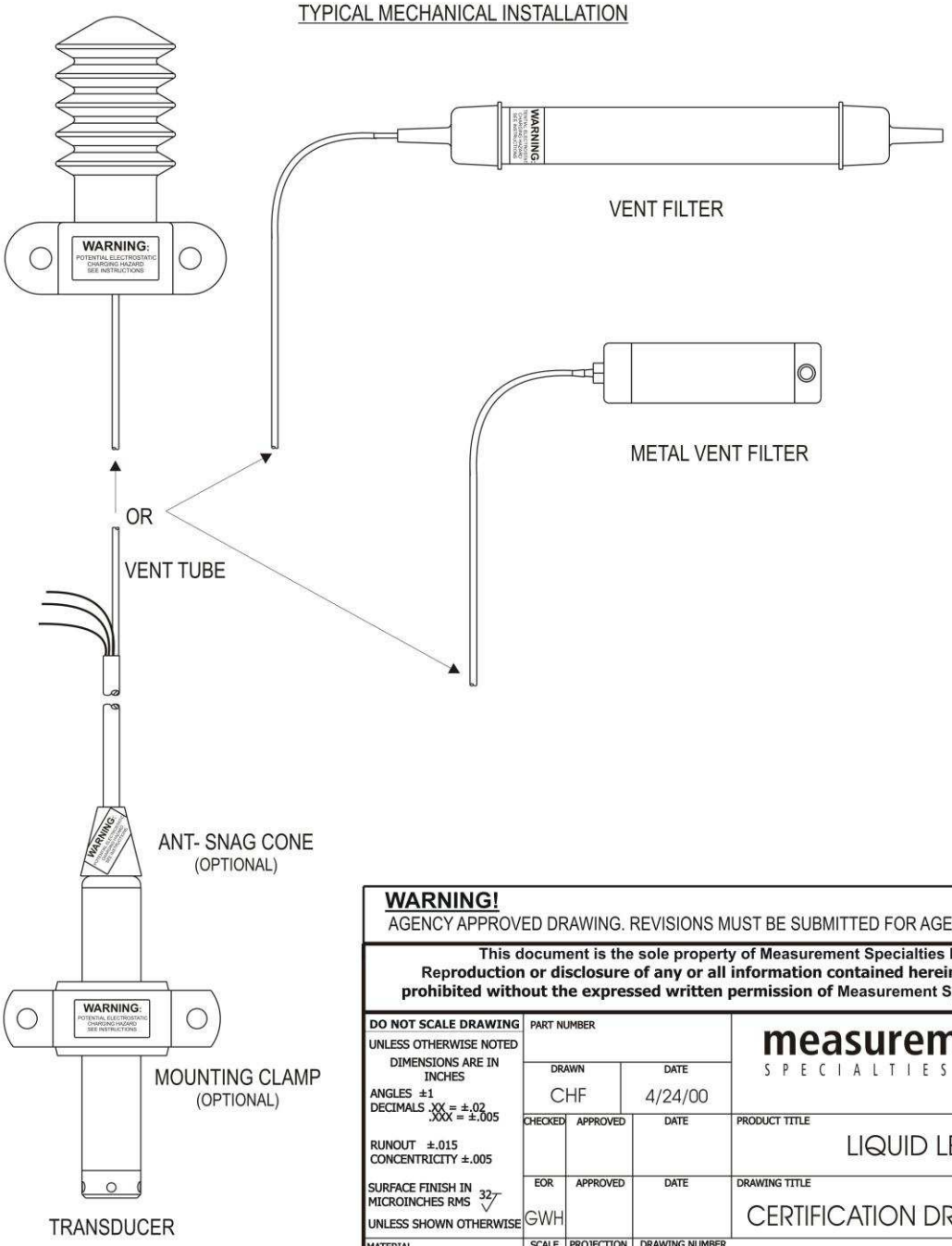
6/21/13	AH	9164	ADDED LTR, SHT 1 ONLY	GKP		GWH
10/29/13	AH1	9164	TEXT CORRECTION TO SERIES	GKP		GWH

TYPICAL MECHANICAL INSTALLATION



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	CHECKED	APPROVED	DATE	PRODUCT TITLE: LIQUID LEVEL
	EOR: GWH	APPROVED	DATE	DRAWING TITLE: CERTIFICATION DRAWING, UL
MATERIAL	SCALE: NTS	PROJECTION	DRAWING NUMBER: TA-6610	REVISION: AH1 / SHEET: 4/4

CE Certificate of Compliance

September 9, 2016

We,

TE CONNECTIVITY SENSORS

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 61326-1:2013 & EN 61326-2-3:2013 Immunity & Emissions Standards

- Basic Electromagnetic Environment
- During testing there was a temporary degradation, or a loss of function or performance that was self-recovering.

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
TE Connectivity Sensor Solutions
Gregory.Hall@TE.com

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