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OPERATIONS & INSTALLATION MANUAL

CUSTOMER ORDER DETAILS

CUSTOMER NAME: XXXX

CUSTOMER PO#: XXXX

SERIAL NUMBER: XXXXXXXX

MODEL : XXXX/FS

POWER: 24 VDC @ 1 AMP

APPLICATION SERVICE: XXXX

XX—XXX SCFM

X TO X°C

0 TO XXX PSIG

SET POINT: XX SCFM (X% FLOW RATE)



**MODEL FS FLOW TRANSMITTER
WITH INSERTION OR IN-LINE
STYLE FLOW TRANSDUCER**

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Outline Dimensions

Flow Curve

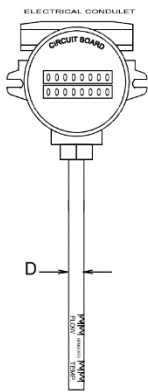
62-9FS & 600-9FS Features

- True mass flow for gases and liquids
- All welded 316SS body standard
- Special materials available for corrosion or abrasion resistance
- Unobstructed flow path
- Pipe sizes and fittings to suit applications
- -250 to 800F service
- -14.7 to 15,000 PSIG
- Automatic pressure and temperature compensation
- Protected precision RTD sensors
- Explosion-proof construction
- Single alarm levels = 2 flow point alarms (temp is optional within two alarm system)
- Fail safe design
- Calibration chart provided for each meter
- Temperature alarm optional
- Form C (SPDT) 5 AMP relays
- Field change for trip high/trip low
- Field change for input power 115/230 VAC 15 Watts
- 24 VDC operation available

Installation model 62-9FS and 600-9FS flow switch

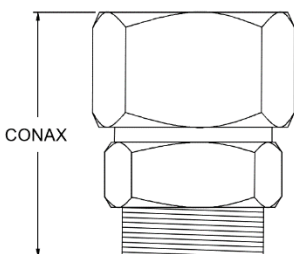
Figures 1 and 2 provide outline drawings of the flow switch, showing flow connections and mounting dimensions. All flow wetted parts are 316 stainless steel. The flow switch can be mounted horizontally or vertically, however, when mounted vertically flow direction must be upwards. The flow should enter at the port marked ‘in’ and exit at the port marked “out”. The meter should be installed in a straight line. This line should preferably be the same diameter as the meter tube or pipe. This straight line should have a minimum length of ten (10) diameters ahead of the meter. Likewise, a straight length of the pipe or tube after the meter should be at least a length of five (5) pipe diameters. Where physical conditions prevent this, inform us in advance and we will calibrate this meter under actual operating conditions. Figure 3 shows the overall external wiring connections power will be labeled accordingly.

Packing Gland Info



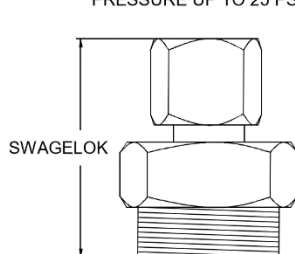
ELECTRICAL CONDUIT
CIRCUIT BOARD
D
1" NPT
316 SS

PRESSURE ABOVE 25 PSIG



CONAX


PRESSURE UP TO 25 PSIG



SWAGELOK

	PROBE TYPE FLOW METER DIAMETER (D)	PACKING GLAND (CONAX)	PACKING GLAND (SWAGELOK)
FEATURES:	1/2"	2.88"	2"
SIMPLE ASSEMBLY - INSERT PROBE, TIGHTEN CAP	3/4"	2.88"	2"
REPLACEABLE SEALANT PERMITS REPEATED USE OF FITTING	1"	3.50"	2.45"
STAINLESS STEEL BODY	1 1/2"	4.25"	3.5"
	2"	N/A	4.47"

NOTE:
 FOR 1/2 PROBE DIAMETER PACKING GLANDS, THE STANDARD SIZE THREAD IS 3/4 NPT, HOWEVER THIS CAN BE ORDERED OR ADAPTED TO 1/2" NPT OR ANY LARGER SIZE THREAD.
 FOR OTHER PROBE DIAMETERS, THE PACKING GLAND THREAD SIZE IS THE SAME AS THE PROBE DIAMETER, THUS THE 1" PROBE PACKING GLAND HAS A STANDARD 1" NPT SIZE, BUT AS WITH ALL THE PACKING GLANDS THIS CAN BE ADAPTED TO FIT OTHER CONNECTION SIZES.



Thermal Instrument Company
 217 Sterner Mill Road, Treviso, PA 19053, USA

DWG. NO.: Packing Gland Info 11-1-21 ORIGINATION DATE: 11/1/21 SCALE: NONE	DESCRIPTION: PACKING GLAND INFORMATION DRAWN BY: MJH APPROVED BY: MJH MATERIAL: AS NOTED PAGE: 1 of 1
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OPERATION – MODEL 600-9FS AND 62-9FS

With all connections having been completed and tested, apply power, and allow a ten (10) minute warm up period.

Caution: Flow and transducer must be within 50°C of operation temperature before power is applied. Sensors may be damaged if transducer temperature is lower than this limit or calibration will not be accurate.

Trip points are factory set. However, the calibration curve provided correlates flow versus flow switch voltage that can be used to adjust trip points in the field.

See **Figure 3** for adjustment procedure.

Figure 1: 600-9FS

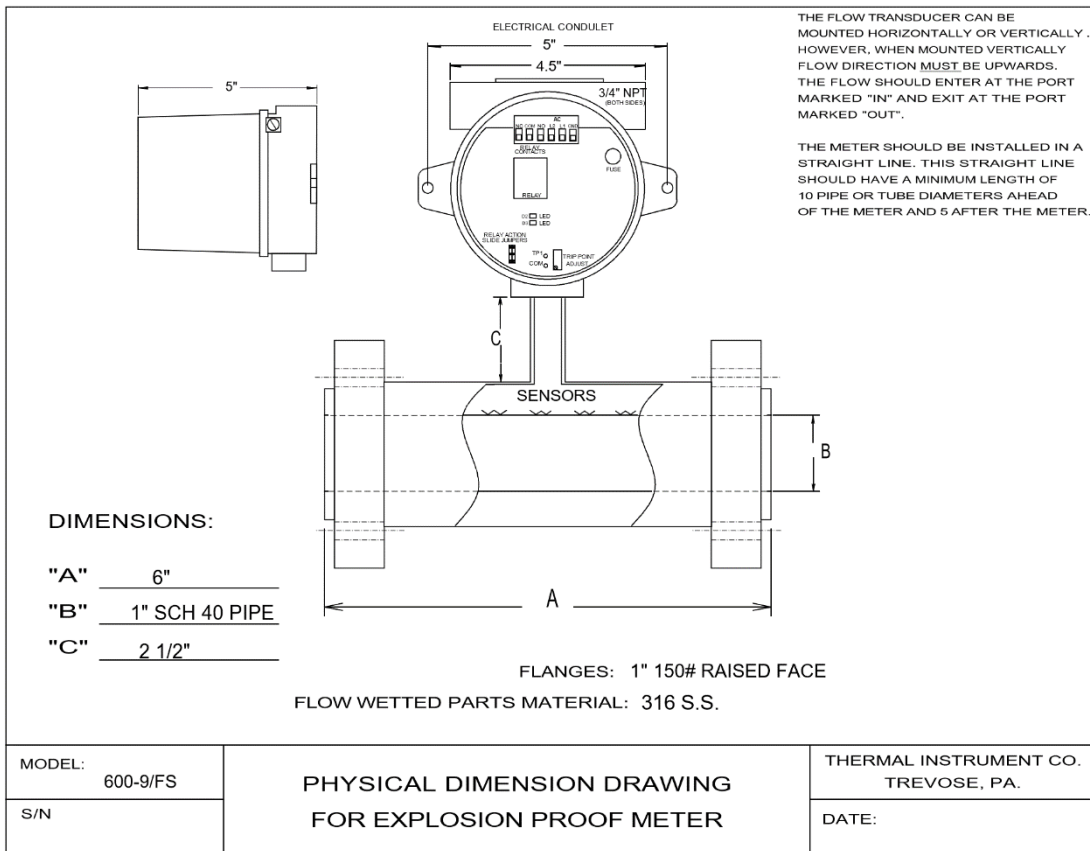
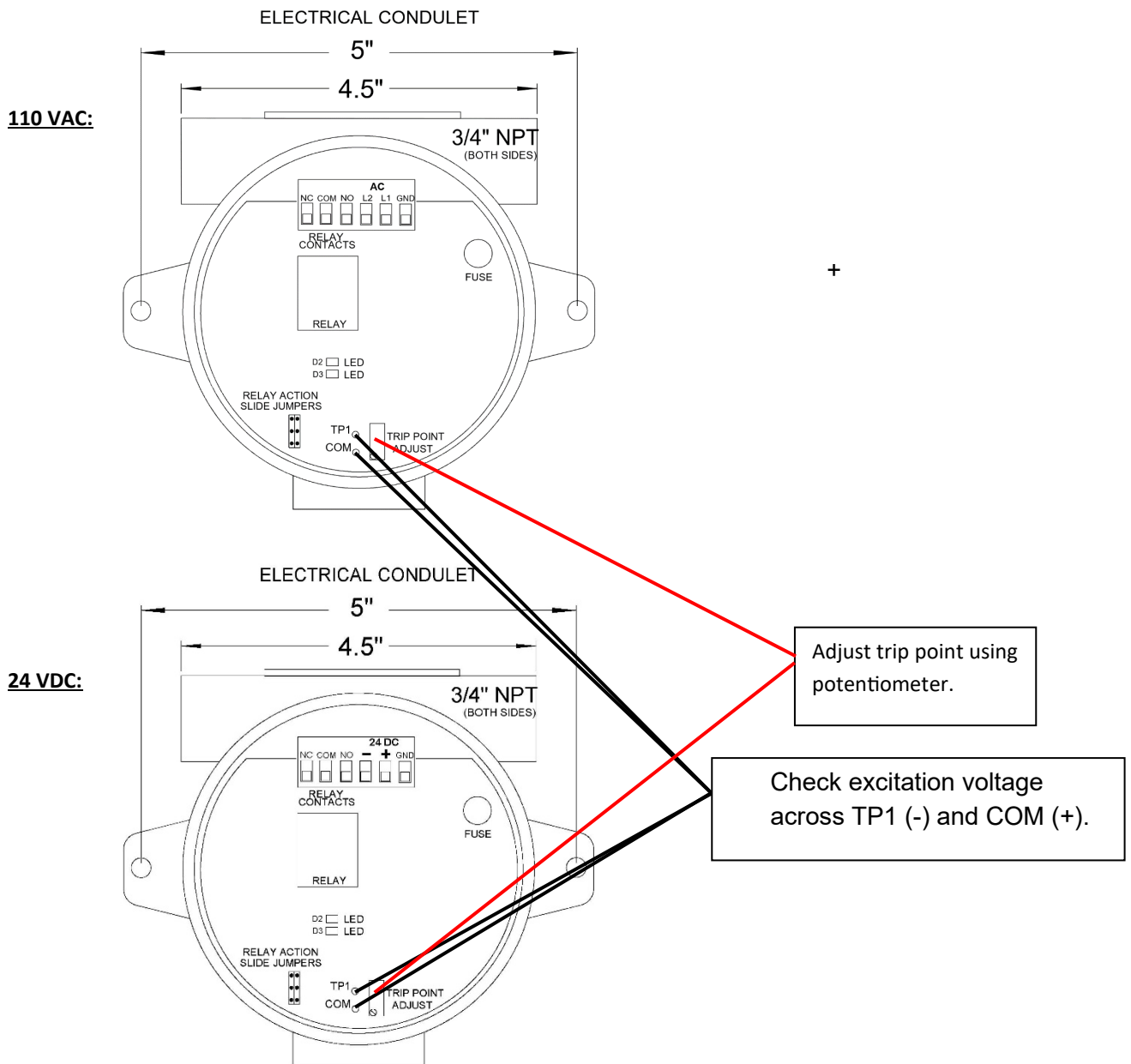
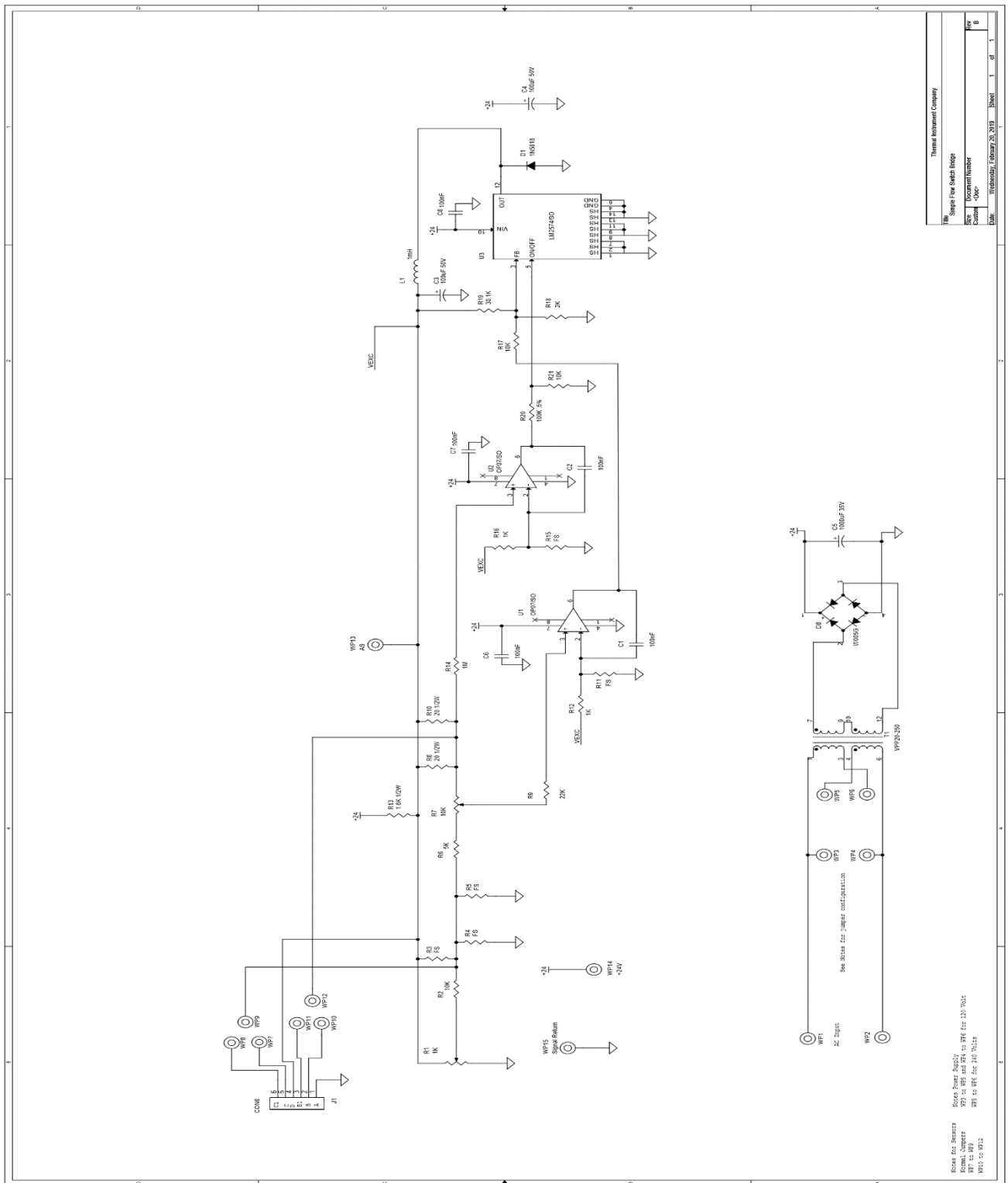


Figure 3: Trip Point Adjust



Trip points are factory set. However, the calibration curve provided correlates flow versus flow switch voltage that can be used to adjust trip points in the field. In order to change the set point, use the excitation voltage along with your flow rate curve to adjust the potentiometer to desired set point.

FS Bridge Board Schematic



Thermal Instrument Company	
Sample For Patch Rings	
Part Number	
Quantity	1000
Date	10/20/2024
Sheet	1 of 1

Notes for Suppliers:
 (Normal Components)
 WPF1 to WPF4 and WPF9 to WPF12 are 100 Ohm
 WPF5 to WPF8 are 200 Ohm
 WPF9 to WPF12 are 100 Ohm

General Precautions to be Observed in Installing Flowmeter Wiring

When the Thermal Flowmeter or Probe is supplied with an explosion-proof conduit, it must be installed with approved wiring techniques. This calls for seals where the external wiring enters these condulets.

In the case where we have a large conduit on a Probe with multiple connections, we will have a fitting with as large as a 2-inch pipe connection. If the contractor is reducing this 2-inch fitting, he must be sure that these reducers are sealed with a suitable electrical or Teflon tape. In like manner, the connectors he uses must be of the sealed conduit type.

Water entering the system from either the power wiring or the interconnecting cable system is very serious and can do damage to the metering system.

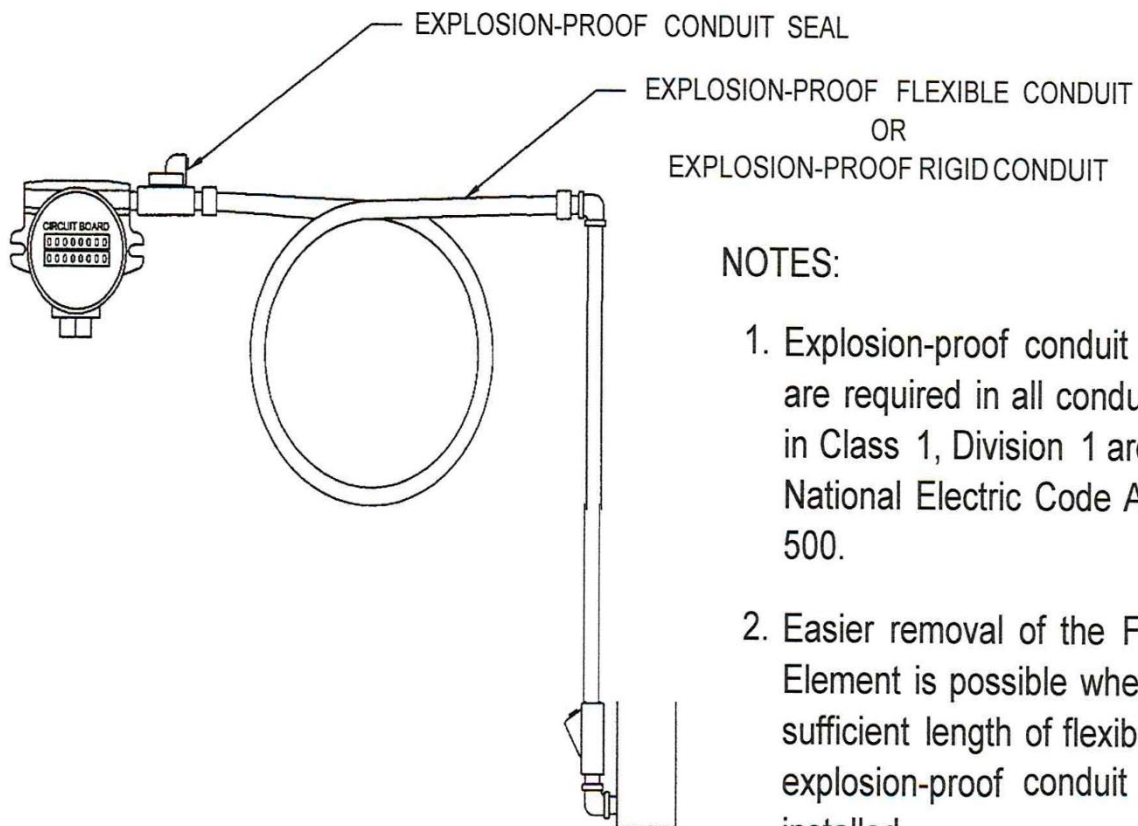
The explosion-proof type condulets are designed, water will enter. In applications where there is undue exposure, it may be well to go to auxiliary covering or sealing mechanisms. This may merely mean a plastic coating, a plastic bag, or in extreme cases a housing.

The same rules apply also where the external wiring enters the electronic housings. These can be either the explosion-proof type, or NEMA 4 type. In either case adequate attention must be paid to sealing the electrical incoming lines. The cover on the NEMA 4 case is gasketed in a very adequate manner. However, in many cases the atmospheric and liquid leaks are at the point of entry of the external wiring or through the conduit from the external wiring itself.

In cases where the NEMA 4 units are used in very hazardous or corrosive atmospheres, it is advisable to purge the system to prevent corrosive attack on the electronics.

General Precautions to be Observed in Installing Flowmeter Wiring
(Continued)

The sketch below shows how commercial seals are installed.



NOTES:

1. Explosion-proof conduit seals are required in all conduit runs in Class 1, Division 1 areas per National Electric Code Article 500.
2. Easier removal of the Flow Element is possible when a sufficient length of flexible explosion-proof conduit is installed.

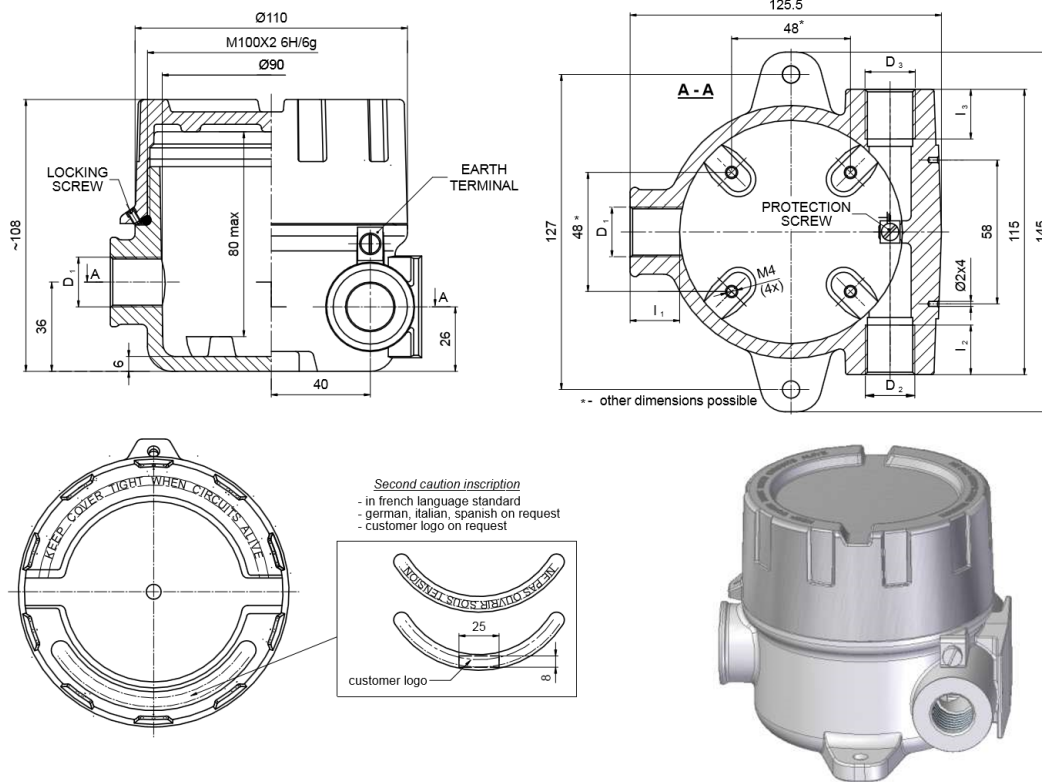
FLOW ELEMENT CONDULET

Limatherm S.A.



31.03.2016

INSTRUMENT HOUSING – type XD-I



Second caution inscription
 - in french language standard
 - german, italian, spanish on request
 - customer logo on request

customer logo

FOR ALL VERSIONS of XD-I							
Material of body and cover: aluminium pressure die-casting							
Service temperature: T _{serv} = -40 + 100°C (85°C with window) – oil proof rubber							
T _{serv} = -40 + 100°C (85°C with window) – silicone rubber							
T _{serv} = -20 + 200°C (85°C with window) – FKM rubber							
Coating: yellow chromating and chemically resistant paint (outside only)							
THREAD D ₃	l ₃ [mm]	THREAD D ₂	l ₂ [mm]	THREAD D ₁	l ₁ [mm]	SEAL MATERIAL	COATING
M20×1.5 M24×1.5 M25×1.5	20	M20×1.5 M24×1.5 M25×1.5	20	M20×1.5 M24×1.5 M25×1.5 M27×2	20	3	SE
½ NPT mod ¾ NPT mod	16	½ NPT mod ¾ NPT mod	16	½ NPT mod ¾ NPT mod	16	4 5	Cal SPU PPU P
PD		PD		PD			

PROTECTION CONCEPT

Protection method	Type of protection		Permitted use	Approval Body	Certificate No.	Protection Principle
	ATEX marking	IECEx marking				
Flameproof EN 60079-0 EN 60079-1 EN 60079-31 IEC 60079-0 IEC 60079-1 IEC 60079-31	1026 II2G Ex db IIC Gb	Ex db IIC Gb	Zone 1, Zone 2 Zone 21, Zone 22	FTZU Czech Republic	FTZU 03 ATEX 0207U IECEx FTZU 12.0017U	Contain the explosion and quench the flame
	1026 II2D Ex tb IIIC Db	Ex tb IIIC Db				

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Enclosure Terminations and Seals

KILLARK FITTINGS



EY SERIES

KILLARK

SEALING FITTINGS



ENY ENY with Nipple
(For Vertical or Horizontal Conduit)



EYS EYS with Nipple
(For Vertical or Horizontal Conduit)



EY EY with Nipple
(For Vertical Conduit)



EYD EYD with Nipple
(Drain/Seal for Vertical Conduit)



ENY-2
(Fixture Hanger)
(See Page L146)

Class I, Div. 1 & 2, Groups A, B, C, D
Class I, Zone 1, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

FEATURES-SPECIFICATIONS

Application & Installation Class I, Divisions 1 and 2

The purpose of seals in a Class I hazardous location is to minimize the passage of gases and vapors and prevent the passage of flames from one electrical installation to another through the conduit system. Seals are required to be installed within 18 inches on any conduit run entering an enclosure which contains devices that may produce arcs, sparks, or high temperature. Where two enclosures are connected by a run of conduit not over 3 ft. long, a single seal located at the center of the run is considered satisfactory. Only explosionproof unions, couplings, elbows, and conduit bodies similar to "L", "T", and "X" type shall be permitted between the sealing fitting and the enclosure.

Seals shall be located within 18 inches of the enclosure or fitting on each conduit run of 2 inch size or larger entering an enclosure or fitting that contains terminals, splices, or taps.

Each run of conduit from a hazardous location to a nonhazardous location should be sealed to minimize the amount of gases and vapors communicated beyond the seal.

Class II, Divisions 1 and 2

Where a raceway provides communication between an enclosure which is required to be dust-ignitionproof and one which is not, suitable means shall be provided to prevent the entrance of dust into the dust-ignitionproof enclosure through the raceway.

Consideration for selection seals:

Select the proper sealing fitting for the hazardous gas/vapor involved; i.e., Class I Groups A, B, C, or D. Zone 1, Groups IIC, IIB, IIC.

Select a sealing fitting for the proper use in respect to mounting position. This is particularly critical when the conduit runs between hazardous and nonhazardous areas. Some seals are designed to be mounted in any position; others are restricted to vertical mounting.

Drains

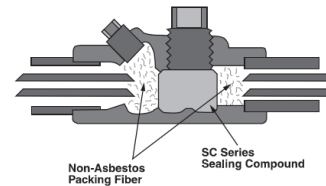
Where there is a probability that liquid or other condensed vapor may be trapped within enclosures for control equipment or at any point in the raceway system, approved means – such as installation of drain seals – shall be provided to prevent moisture accumulation.

For more complete data or special applications, consult the code or your local inspector.

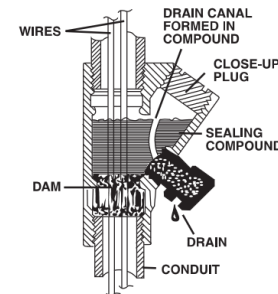
Sealing compounds shall be approved for the purpose and shall not be affected by the surrounding atmosphere or liquids, and shall not have a melting point of less than 93°C. (200°F.).

In the complete seal, the minimum thickness of the sealing compound shall not be less than the trade size of the conduit, and in no case less than 5/8 inch.

NOTE: The amount of Killark sealing compound and packing fiber required for any seal is determined by volume, hub size and mounting position of the seal. Refer to installation data table on page F50 for specific amounts required.



Schematic drawings illustrate the application of sealing compound, fiber dams, and installed seal with drain.



Splices and taps shall not be made in fittings intended only for sealing with compound, nor shall other fittings in which splices or taps are made be filled with compound.

Killark sealing fittings are produced with utmost care to insure a substantial margin of safety. Threads are clean, deep, and snug. When properly installed with Killark sealing compound (SC Type) and Killark non-asbestos fiber (PF Type) for the dams, you can be sure your installation will provide more than adequate safety.

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Enclosure Terminations and Seals



KILLARK FITTINGS

SEALING FITTINGS



ENY-1, 2, 3, 4, 5, 6
 Class I, Div. 1 & 2, Groups A, B, C, D
 Class I, Zone 1, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

EYS Series
 Class I, Div. 1 & 2, Groups C, D
 Class I, Zone 1, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

UL LISTED File No. E10514
 NSF Certified File No. LR11716
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

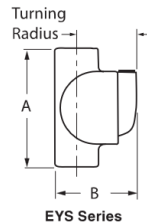
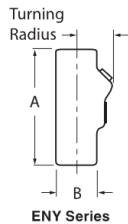
- Electrostatically applied powder coating

Duraloy Iron

- Tri-Coat Finish of electrozinc, chromate sealant, and electrostatically applied powder coating

HUB SIZE	ENY SEALING FITTINGS				TURNING RADIUS	ENY WITH NIPPLE	
	CATALOG NUMBER		DIMENSIONS			CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	ENY-1	ENY-1M	4-1/16" (103)	1-9/32" (33)	1-3/32"(30)	ENY-1-T	ENY-1TM
3/4"	ENY-2	ENY-2M	4-3/16" (106)	1-1/2" (38)	1-9/32"(33)	ENY-2-T	ENY-2TM
1"	ENY-3	ENY-3M	5" (127)	1-3/4" (45)	1-13/32"(36)	ENY-3-T	ENY-3TM
1-1/4"	ENY-4	ENY-4M	5-3/8" (137)	2-3/16" (56)	1-25/32"(45)	ENY-4-T	ENY-4TM
1-1/2"	ENY-5	ENY-5M	5-11/16" (144)	2-3/8" (60)	1-29/32"(48)	ENY-5-T	ENY-5TM
2"	ENY-6	ENY-6M	6-3/8" (162)	2-3/8" (60)	2-5/16"(59)	ENY-6-T	ENY-6TM

Dimensions



HUB SIZE	EYS SEALING FITTINGS				TURNING RADIUS	EYS WITH NIPPLE	
	CATALOG NUMBER		DIMENSIONS			CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	EYS-1	—	2-15/16" (75)	1-13/16" (46)	1-3/16"(30)	EYS-1-T	—
3/4"	EYS-2	—	4-1/16" (103)	2-1/16" (52)	1-9/32"(33)	EYS-2-T	—
1"	EYS-3	—	4-25/32" (121)	2-11/32" (60)	1-13/32"(36)	EYS-3-T	—
1-1/4"	EYS-4	—	5-3/8" (137)	3" (76)	1-25/32"(45)	EYS-4-T	—
1-1/2"	EYS-5	—	5-11/16" (144)	3-1/4" (83)	1-29/32"(48)	EYS-5-T	—
2"	EYS-6	—	6-3/8" (162)	3-15/16" (100)	2-5/16"(59)	EYS-6-T	—
2-1/2"	EYS-7	EYS-7M	7-5/8" (194)	4-1/2" (114)	4-1/8" (105)	EYS-7-T	EYS-7TM
3"	EYS-8	EYS-8M	7-5/8" (194)	4-1/2" (114)	4-3/8" (111)	EYS-8-T	EYS-8TM
3-1/2"	EYS-9	EYS-9M	7-1/8" (181)	5-3/16" (132)	4-3/4" (121)	EYS-9-T	EYS-9TM
4"	EYS-0	EYS-0M	7-1/8" (181)	5-3/16" (132)	4-3/4" (121)	EYS-0-T	EYS-0TM

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Enclosure Terminations and Seals



SEALING FITTING



EY & EYD Series
 Class I, Div. 1 & 2, Groups C, D
 Class I, Zone 1, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

UL File No. E10514
 Certified File No. LR11716
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

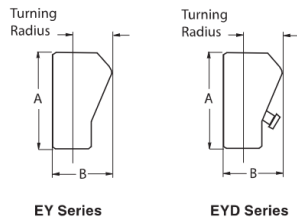
Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating
- **Duraloy Iron**
- Tri-Coat Finish of electrozinc, chromate sealant, and electrostatically applied powder coating

HUB SIZE	EY SEALING FITTINGS				TURNING RADIUS	EY WITH NIPPLE	
	CATALOG NUMBER		DIMENSIONS			CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	EY-1	EY-1M	3-1/16"(78)	2-3/4"(70)	2-1/4"(57)	EY-1-T	EY-1TM
3/4"	EY-2	EY-2M	3-1/16"(78)	2-3/4"(70)	2-1/4"(57)	EY-2-T	EY-2TM
1"	EY-3	EY-3M	4-9/32"(109)	3-1/8"(79)	2-3/8"(60)	EY-3-T	EY-3TM
1-1/4"	EY-4	EY-4M	5-1/8"(130)	3-7/8"(98)	2-7/8"(73)	EY-4-T	EY-4TM
1-1/2"	EY-5	EY-5M	5-1/8"(130)	4-5/8"(117)	3-7/16"(87)	EY-5-T	EY-5TM
2"	EY-6	EY-6M	5-1/8"(230)	5-11/16"(144)	4-1/4"(108)	EY-6-T	EY-6TM
2-1/2"	EY-7	EY-7M	7"(178)	6-5/16"(160)	4-5/8"(117)	EY-7-T	EY-7TM
3"	EY-8	EY-8M	7"(178)	6-5/16"(160)	4-5/8"(117)	EY-8-T	EY-8TM
3-1/2"	EY-9	EY-9M	8-3/4"(222)	7-1/8"(181)	5-3/8"(138)	EY-9-T	EY-9TM
4"	EY-0	EY-0M	8-3/4"(222)	7-1/8"(181)	5-3/8"(138)	EY-0-T	EY-0TM

Dimensions



HUB SIZE	EYD SEALING FITTINGS				TURNING RADIUS	EYD WITH NIPPLE		
	CATALOG NUMBER		DIMENSIONS			CATALOG NUMBER		
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON	
1/2"	See New 1/2", 3/4", 1" Drain Seal offering on page F50							
3/4"								
1"								
1-1/4"	EYD-4	EYD-4M	5-1/8"(130)	3-7/8"(98)	2-7/8"(73)	EYD-4-T	EYD-4TM	
1-1/2"	EYD-5	EYD-5M	5-1/8"(130)	4-5/8"(117)	3-7/16"(87)	EYD-5-T	EYD-5TM	
2"	EYD-6	EYD-6M	5-1/8"(130)	5-11/16"(144)	4-1/4"(108)	EYD-6-T	EYD-6TM	
2-1/2"	EYD-7	EYD-7M	7"(178)	6-5/16"(160)	4-5/8"(117)	EYD-7-T	EYD-7TM	
3"	EYD-8	EYD-8M	7"(178)	6-5/16"(160)	4-5/8"(117)	EYD-8-T	EYD-8TM	
3-1/2"	EYD-9	EYD-9M	8-3/4"(122)	7-1/8"(181)	5-3/8"(137)	EYD-9-T	EYD-9TM	
4"	EYD-0	EYD-0M	8-3/4"(122)	7-1/8"(181)	5-3/8"(137)	EYD-0-T	EYD-0TM	

Enclosure Terminations and Seals



SEALING MATERIALS



Sealing Compound



Packing Fiber



Thread Lubricants

FEATURES-SPECIFICATIONS

Series SC/PF/LUBG

Sealing Materials

SC Series Sealing compound is a cement used extensively for sealing conduit to prevent the spread of explosive gases. It is non-shrinking and a secure seal is formed. SC Series resists acids, water, oil, etc. It is UL Listed for use with Killark ENY, EY, and EYS Series. Also CSA certified for use with any CSA certified sealing fitting.

Packing Fiber

Killark's Packing Fiber is made from an environmentally safe, non-asbestos material. It is easy to use and forms a positive dam to hold compound (Killark SC Type) in ENY, EY, and EYS Series fittings.

Threaded Lubricants

Two special blends of lubricants have been developed by Killark for use with threaded joints. These lubricants are to be used to prevent galling of pipe threads when threaded into a coupling, junction box, etc. They insure a quick release of undamaged male and female threads when parts are disassembled.

LUBG is a general purpose lubricant to be used in temperatures ranging from 0° to 125°F.

LUBT is a high-quality lubricant to be used in temperatures ranging from -40° to +500°F. It is recommended to be used on hazardous location lighting fixtures.

OUNCES REQUIRED PER FITTING				
HUB SIZE	SEALING COMPOUND			PACKING FIBER
	ENY [Ⓢ]	EYS [Ⓢ]	EY/EYD	
1/2"	1.5 oz.	3.0 oz.	1.0 oz.	1/16 oz.
3/4"	2.0 oz.	3.0 oz.	2.0 oz.	1/8 oz.
1"	3.0 oz.	8.0 oz.	4.5 oz.	1/4 oz.
1-1/4"	6.5 oz.	8.5 oz.	7.5 oz.	1/2 oz.
1 1/2"	8.5 oz.	17.5 oz.	12.0 oz.	1 oz.
2"	15.0 oz.	27.0 oz.	24.0 oz.	2 oz.
2-1/2"	—	42.0 oz.	44.0 oz.	3 oz.
3"	—	47.0 oz.	44.0 oz.	4 oz.
3-1/2"	—	56.0 oz.	75.0 oz.	6 oz.
4"	—	56.0 oz.	75.0 oz.	9 oz.

[Ⓢ] ENY/EYS suitable for both horizontal or vertical applications.

SEALING COMPOUND	
CATALOG NUMBER	SIZE PACKAGE
SC-4 OZ	4 oz.
SC-8 OZ	8 oz.
SC-1 LB	1 lb.
SC-5 LB	5 lbs.

PACKING FIBER	
CATALOG NUMBER	SIZE PACKAGE
PF-2	2 oz.
PF-4	4 oz.
PF-16	1 lb.

THREAD LUBRICANTS	
CATALOG NUMBER	CONTAINER PACKAGE
LUBT-2	2 oz.
LUBG-6	6 oz.

Enclosure Terminations and Seals

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Explosionproof and Dust-tight Fittings and Accessories

EXPLOSIONPROOF AND DUST-TIGHT SEALING FITTINGS CLASS I, GROUPS B*, C & D; CLASS II, GROUPS E, F & G; NEMA 7 & NEMA 9



XYB-XYBM



Sealing Fittings are required in Hazardous Locations and are used to isolate arc-producing devices in conduit and wiring systems, and to prevent the passage of explosive pressures from one area to another.

FOR HORIZONTAL AND VERTICAL MOUNTING - Type XYB and XYBM are suitable for either horizontal or vertical mounting and are provided with threaded plugged openings into which fiber and cement can be placed to form effective seal. XYB has female ends for conduit entrance. The XYBM has female ends with a removable threaded nipple.

*1/2", 3/4", 1" sizes Class I, Group B, C, D, Class II, E, F, G.

1 1/4", 1 1/2", 2", 2 1/2", 3", 3 1/2", 4" sizes Class I, Group C, D, Class II, E, F, G

- CSA Certified LR27991
- UL Listed E10493

10A-4

Catalog No. Description	Conduit Size (In.)	Ounces Req. For Each Sealing Fitting		Standard Package	
		Cement	Fiber	Qty.	Tot. Wt. Lbs.
Female-Female					
XYB-2	1/2	1	1/8	5	2.1
XYB-3	3/4	2	1/4	5	2.6
XYB-4	1	3	1/4	5	3.7
XYB-5	1-1/4	6	3/8	2	2.5
XYB-6	1-1/2	9	1/2	2	3.2
XYB-8	2	18	3/4	2	5.6
XYB-10	2-1/2	23	1-1/2	2	6.2
XYB-12	3	48	3-1/8	1	6.0
XYB-14	3-1/2	70	4-1/2	1	6.8
XYB-16	4	90	6	1	8.3

Catalog No. Description	Conduit Size (In.)	Ounces Req. For Each Sealing Fitting		Standard Package	
		Cement	Fiber	Qty.	Tot. Wt. Lbs.
Male-Female					
XYBM-2	1/2	1	1/8	5	2.2
XYBM-3	3/4	2	1/4	5	2.7
XYBM-4	1	3	1/4	5	3.8
XYBM-5	1-1/4	6	3/8	2	2.6
XYBM-6	1-1/2	9	1/2	2	3.4
XYBM-8	2	18	3/4	2	5.9
XYBM-10	2-1/2	23	1-1/2	2	6.8
XYBM-12	3	48	3-1/8	1	6.3
XYBM-14	3-1/2	70	4-1/2	1	7.3
XYBM-16	4	90	6	1	8.8

Nominal Dimensions (Inches)						
Conduit Size	A	B	C	(XYBM Series Only)		Turn Radius R
				D		
1/2	3-19/32	1-13/16	5/8	11/16		1-3/16
3/4	3-25/32	2-1/16	3/4	15/16		1-5/16
1	4-3/8	2-5/16	7/8	15/16		1-7/16
1-1/4	5-5/32	2-13/16	1-1/16	1-1/16		1-3/4
1-1/2	5-11/16	3-3/16	1-3/16	1-3/16		2
2	6-13/16	3-7/8	1-1/2	1-7/16		2-3/8
2-1/2	7-1/2	4-1/2	1-7/8	1-5/8		2-11/16
3	9-9/16	5-1/2	2-3/16	1-7/8		3-5/16
3-1/2	9-1/2	6-1/6	2-3/8	2		3-11/16
4	9-9/16	6-1/2	2-5/8	2-1/8		3-7/8

- Compliances**
- NEC Class I, Groups B, C, D
Class II, Groups E, F, G
 - UL Standard 886 - CSA Standard C22.2 No. 30

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Enclosure Terminations and Seals

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Explosionproof and Dust-tight Fittings and Accessories

EXPLOSIONPROOF AND DUST-TIGHT SEALING FITTINGS CLASS I, GROUP D; CLASS II, GROUPS E, F & G; NEMA 7 & NEMA 9

Adalet Sealing Fittings are used to isolate arc-producing devices from wiring systems and to prevent the spread of explosive gases.

FOR VERTICAL MOUNTING

Types XY and XYM Fittings are for vertical mounting, and are provided with threaded plugged openings into which the sealing cement is poured. Sizes 1-1/4" x 1-1/2" have large plugged openings in the lower hub to facilitate packing fiber around the wires to form a dam. Type XYM's have removable threaded nipples. The two hubs are tapped simultaneously to assure alignment of the conduits, especially important to equipment manufacturers using short runs of conduit.

FOR HORIZONTAL & VERTICAL MOUNTING

Type XYC Fittings are for horizontal mounting only, with the cover opening in an upright position. XYCS fittings are for vertical or horizontal mounting, with removable threaded covers which can be turned to the desired position for pouring in the sealing cement. The covers are interchangeable. The male-to-female types have removable threaded nipple.



XY 2-3-4

XYM 2-3-4



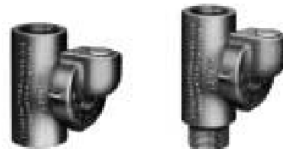
XY 5-6

XYM 5-6



XYC

XYCM



XYCS

XYCSM

10A-6

Catalog Number	Conduit Size (In.)	Ounces Required per Fitting		Standard Package	
		Sealing Cement	Packing Fiber	Qty	Weight Lbs.
XY2	1/2	1	1/8	25	10
XY3	3/4	1	1/4	25	10
XY4	1	2	1/4	25	12-1/2
XY5	1-1/4	4	3/8	10	7-1/2
XY6	1-1/2	5	1/2	10	10
XYC2	1/2	2	1/8	25	13
XYC3	3/4	2	1/4	25	13
XYC4	1	4-1/2	1/4	25	15
XYC5	1-1/4	8-1/2	3/8	10	10
XYC6	1-1/2	11-1/2	1/2	10	11
XYC8	2	13-1/2	3/4	10	12
XYC10	2-1/2	15	1-1/2	1	2
XYC12	3	31-1/2	3-1/8	1	3
XYC14	3-1/2	42-1/2	4-1/2	1	4
XYC16	4	51	6	1	5
XYC2S	1/2	2	1/8	25	13
XYC3S	3/4	2	1/4	25	13
XYC4S	1	3	1/4	25	15
XYC5S	1-1/4	6-1/2	3/8	10	10
XYC6S	1-1/2	10	1/2	10	11
XYC8S	2	12-1/2	3/4	10	12
XYC10S	2-1/2	13-1/2	1-1/2	1	2
XYC12S	3	29-1/2	3-1/8	1	3
XYC14S	3-1/2	40	4-1/2	1	4
XYC16S	4	48-1/2	6	1	5

- CSA Certified LR27991
- UL Listed E10493

Compliances
 • NEC Class I, Group D Class II, Groups E, F, G
 • UL Standard 886 - CSA Standard C22.2 No. 30

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Troubleshooting

First, eliminate external failure causes, check the following:

- Power not on or incorrect voltage (Ex.—Connecting 24 VDC to 110 VAC)
- Fluid not flowing through pipe
- Flow Switch Wiring incorrect
- Output Device Wiring incorrect
- If Insertion probe style, check probe insertion depth to ensure sensors are a little past center line of pipe.
- Fluid flowing in same direction as Flow Direction Arrow marked under conduit

Once external Failures have been eliminated, check the following:

1. On electronic board, the D3 indicator light should be flashing GREEN. If not, check power connections and fuse.
2. If power is confirmed and meter is not responding, check excitation voltage across TP1 (-) and COM (+). See included flow curve for values.

IF FLOW SWITCH IS STILL NOT OPERATING CONTACT

THERMAL INSTRUMENT AT (215) 355-8400

Summary

If you have any questions at all for Thermal Instrument Company, please do not hesitate to contact us at **(215) 355-8400**.

Spare Parts List:

110/220 VAC Fuse

They are readily available from Digi-Key (**1-800-344-4539**) as Part Number **WK4041BK-ND** or any other electronic supplier handling **Wickmann TR5 Sub-Miniature Fuses (UL 248-14)** or equivalent.

24 VDC Fuse

Wickmann Littelfuse 1 Amp Slow Blow 250 VAC - Digi-key Part # WK4048BK-ND.
www.digikey.com

Contact Thermal Instrument for other parts as needed.



www.ThermalInstrument.com

217 Sterner Mill Road

Treose | PA | 19053 | USA

Phone: 215-355-8400

Fax: 215-355-1789