

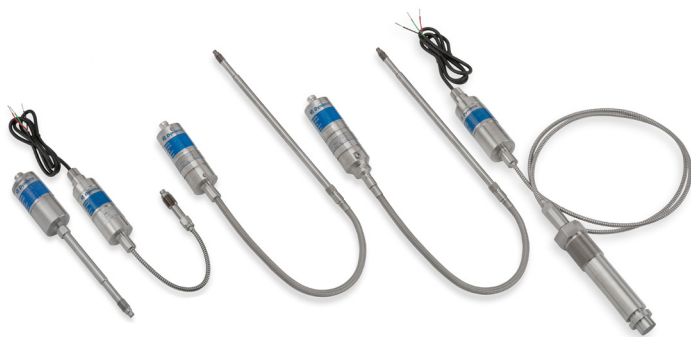


From lab to production,
providing a window into the process



Dynisco SPX 2-Series

GENERAL PURPOSE SMART PRESSURE SENSORS
FOR HAZARDOUS LOCATIONS



Description

The Dynisco SPX 2-Series is a smart 4-20mA pressure transmitter designed for use in hazardous locations and are available with a variety of different process and electrical connections. The SPX 2-Series is an all welded construction.

These amplified transmitters eliminate the need for external signal conditioning. All models can interface directly with distributed control systems, PLC's, computers, and similar high level control devices. Optional thermocouple or RTD configurations are available to provide melt temperature.

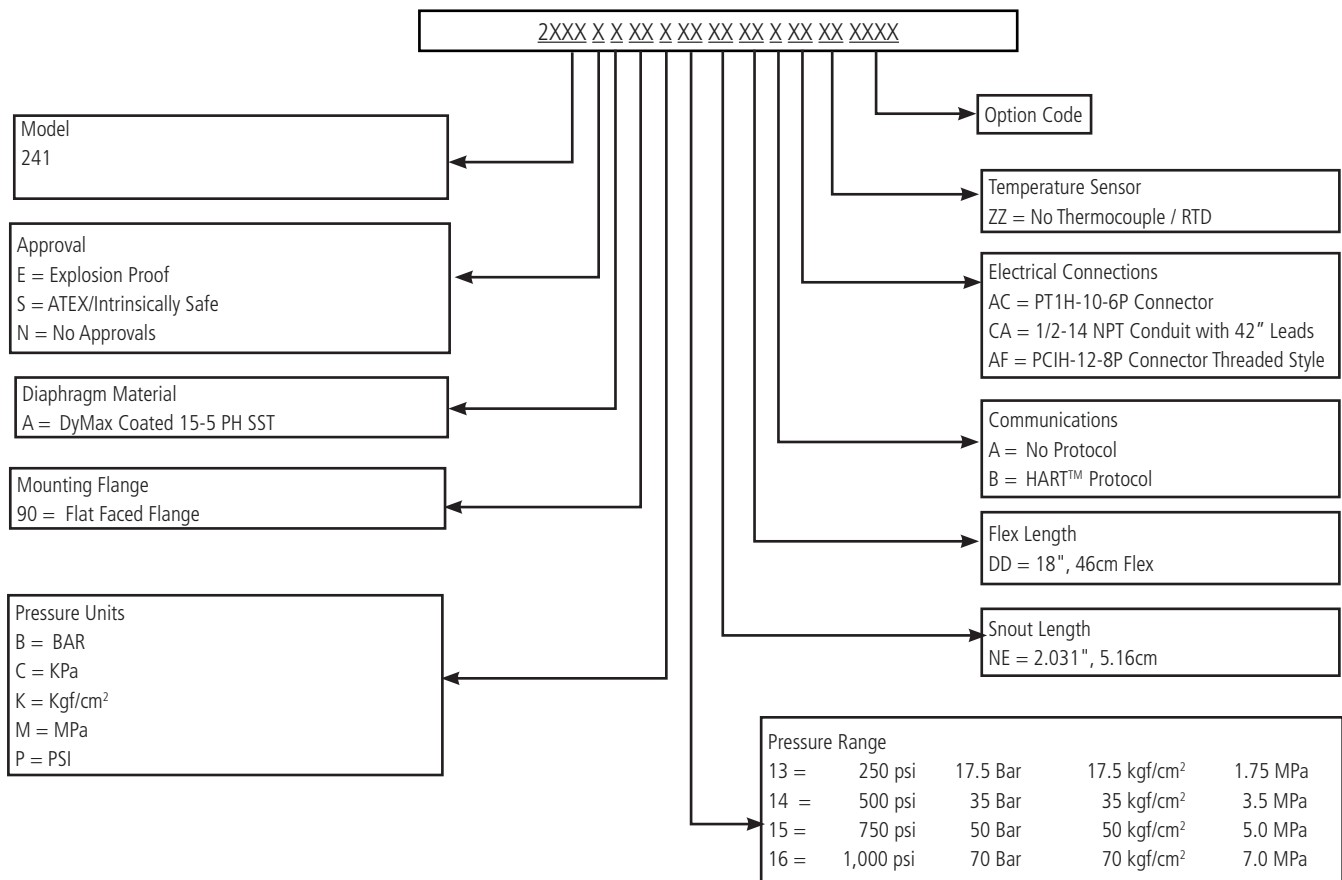
Features

- 4-20mA loop-powered output
- +/- 0.25% accuracy available
- Wide selection of pressure ranges available
- Turndown 6:1 (3:1 Turndown for model SPX 2290)
- Configurations available for use in hazardous locations
- Remotely configurable via HART™
- Precise, repeatable pressure measurements
- Output supplied directly to DSC or PLC
- Meets CE requirements
- CE ATEX Intrinsically Safe Approved
- IECEx Intrinsically Safe Approved
- FM Explosion Proof Approved
- CSA Explosion Proof Approved
- SIL 2 Certified (Pressure Output)
- PL'c' Certified (Relay Output)
- Additional approvals are available

Performance Characteristics SPX2- Series	
Output	4 - 20 mA, with optional HART™
Input Voltage	16 - 36 Vdc (Std); 16 - 30 Vdc (ATEX IS)
Accuracy Accuracy is defined as the combined error expressed as a percentage of full scale output with the specifications of: Electronics ambient temperature, capillary of <= 36"; DyMax coated 15-5 SST diaphragm; Best Straight Line (BSL) %FS, per ISA-37.1 Consult Factory for availability and specifications of other configurations.	2241 ± 1.0% 2242 ± 0.25% for pressure ranges ≥ 1,500 psi; ± 0.50% for pressure ranges < 1,500 psi 2243 ± 0.25% for pressure ranges ≥ 1,500 psi; ± 0.50% for pressure ranges < 1,500 psi 2244 ± 0.25% for pressure ranges ≥ 500 psi; ± 1.0% for pressure ranges < 500 psi 2290/2291/2292 ± 0.50%
Repeatability	±0.1%
Rangeability	6:1 Turndown (3:1 Turndown for Model SPX2290)
Over Pressure	2X FSO or 35,000 psi, whichever is less (2290, 2291, & 2292 1.5 x FSO for 10,000 psi)
Zero Balance Adjustment Range	-40% to +10%; -80% to 20% for FSP < 500 psi
Load Resistance	500 Ω @ 24 Vdc, 1,000 Ω @ 36 Vdc
Electronics Ambient Temperature	70°F (20°C)
Electronics Operating Temperature	-20 to 185°F (-29 to 85°C)
Diaphragm Temperature	750°F (400°C) max [Models 2241, 2244, 2290, 2291, 2292 limited to 600°F (315°C)]
Electronics Compensated Temperature Range	0 to 150°F (-18 to 65°C)
Zero Shift (Electronics Temp Change)	All Models: 0.01% F.S./°F max (0.02% F.S./°C max)
Span Shift (Electronics Temp Change)	All Models: 0.01% F.S./°F max (0.02% F.S./°C max)
Zero Shift (Snout Temp Change)	2241/2244//2290/2291/2292: 1 psi/100°F (from 75-450°F) typical 2 psi/100°F (from 450-600°F) typical 2242/2243: 15 psi/100°F (27 psi/100°C) typical

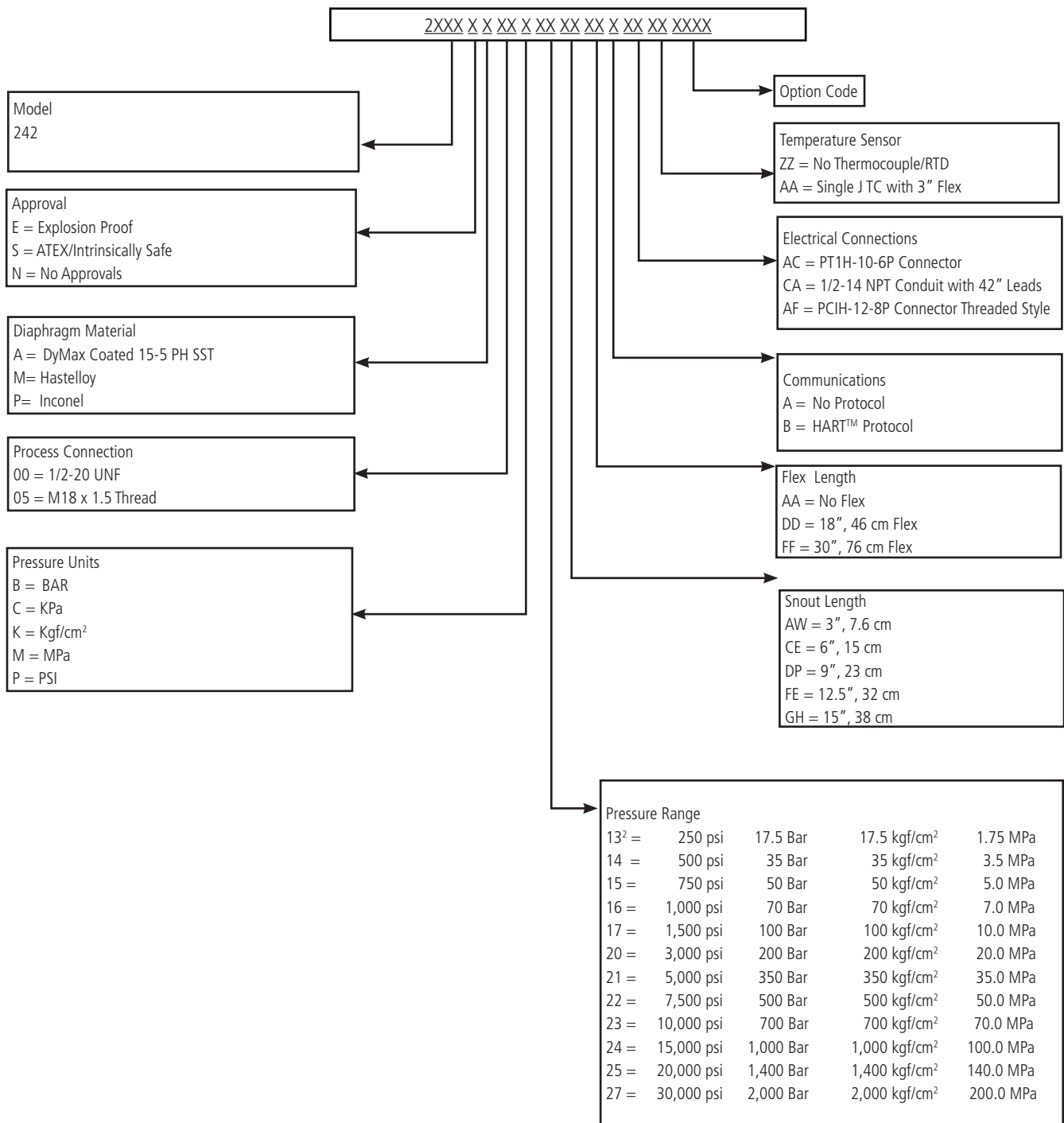
Mechanical Characteristics	
Mounting Torque	2241: 350 inch-lbf max 2242: 500 inch-lbf max 2243: 50 inch-lbf max 2244: 350 inch-lbf max 2290: 350 inch-lbf max 2291: 350 inch-lbf max 2292: 80 ft-lbf max
Standard Wetted Parts	DyMax coated 15-5 PH SST
Approvals & Certifications	
ATEX/IECEX Intrinsically Safe	
SIL 2 (pressure output) & PL'c' (relay output)	
FM & CSA Explosion Proof	
Additional Approvals are Available	

Ordering Guide for Models SPX2241¹

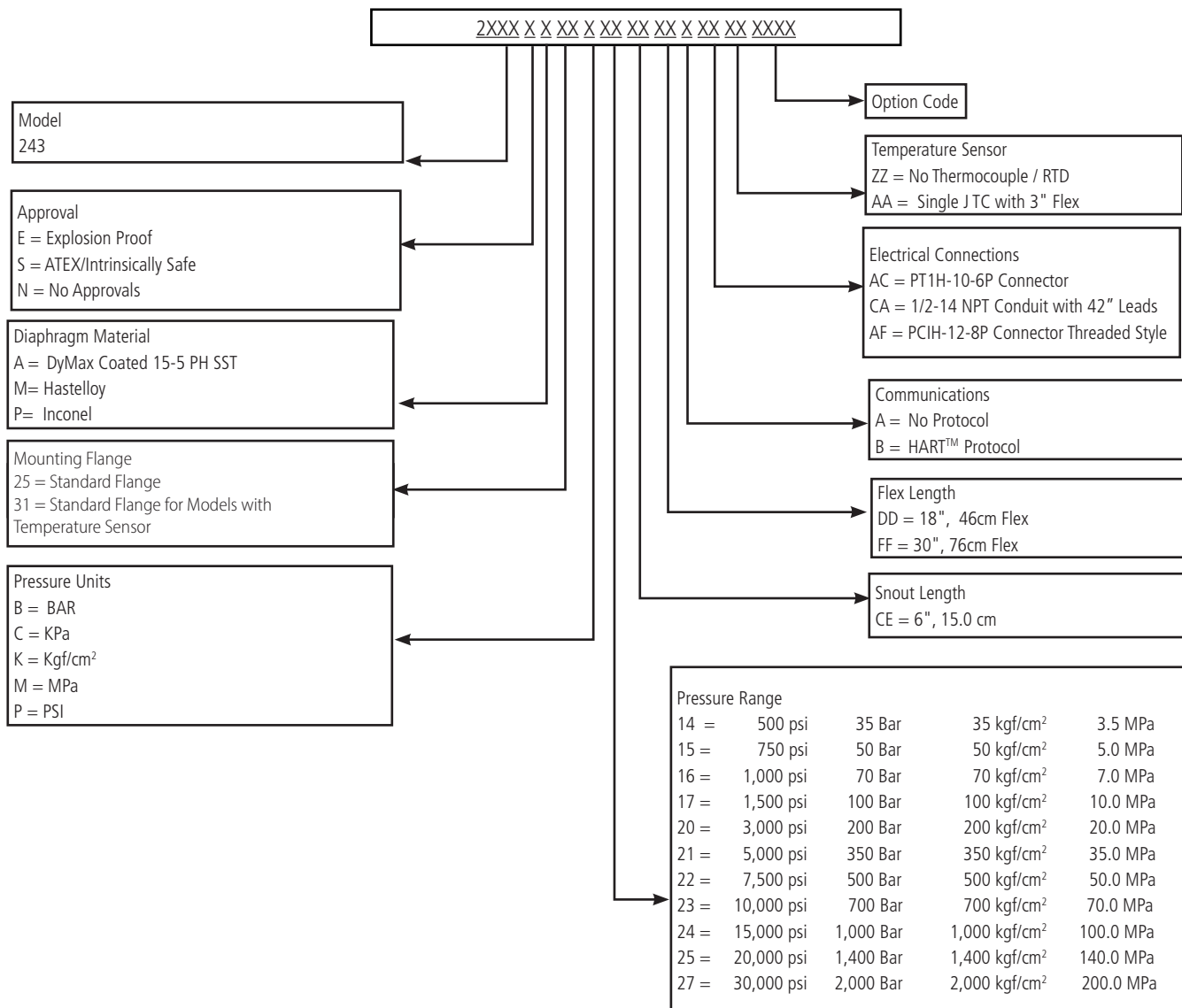


¹ Other configurations are available. Please consult factory.

Ordering Guide for Models SPX2242¹

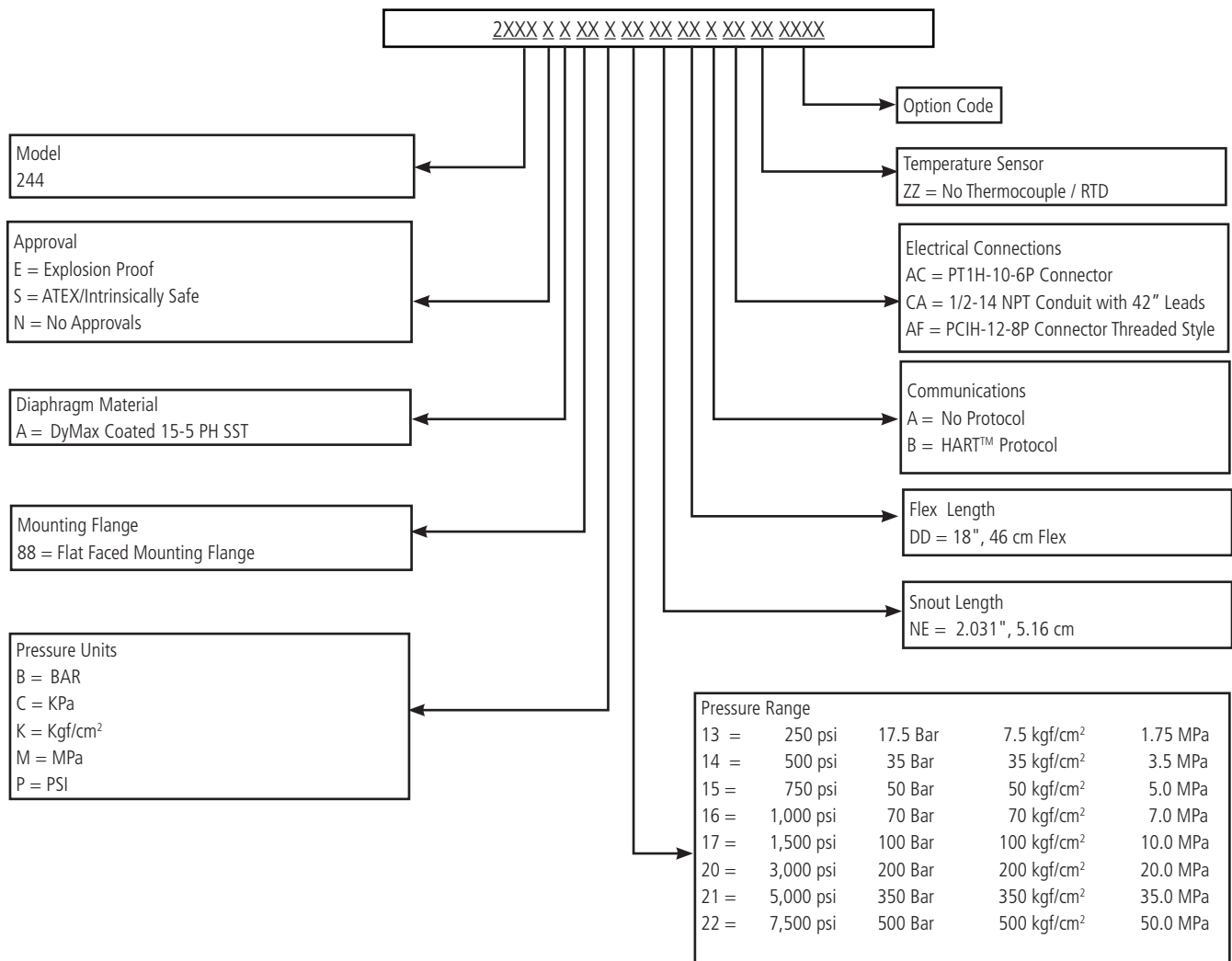
¹Other configurations are available. Please consult factory.²Available in M18 x 1.5 thread only.

Ordering Guide for Models SPX2243¹



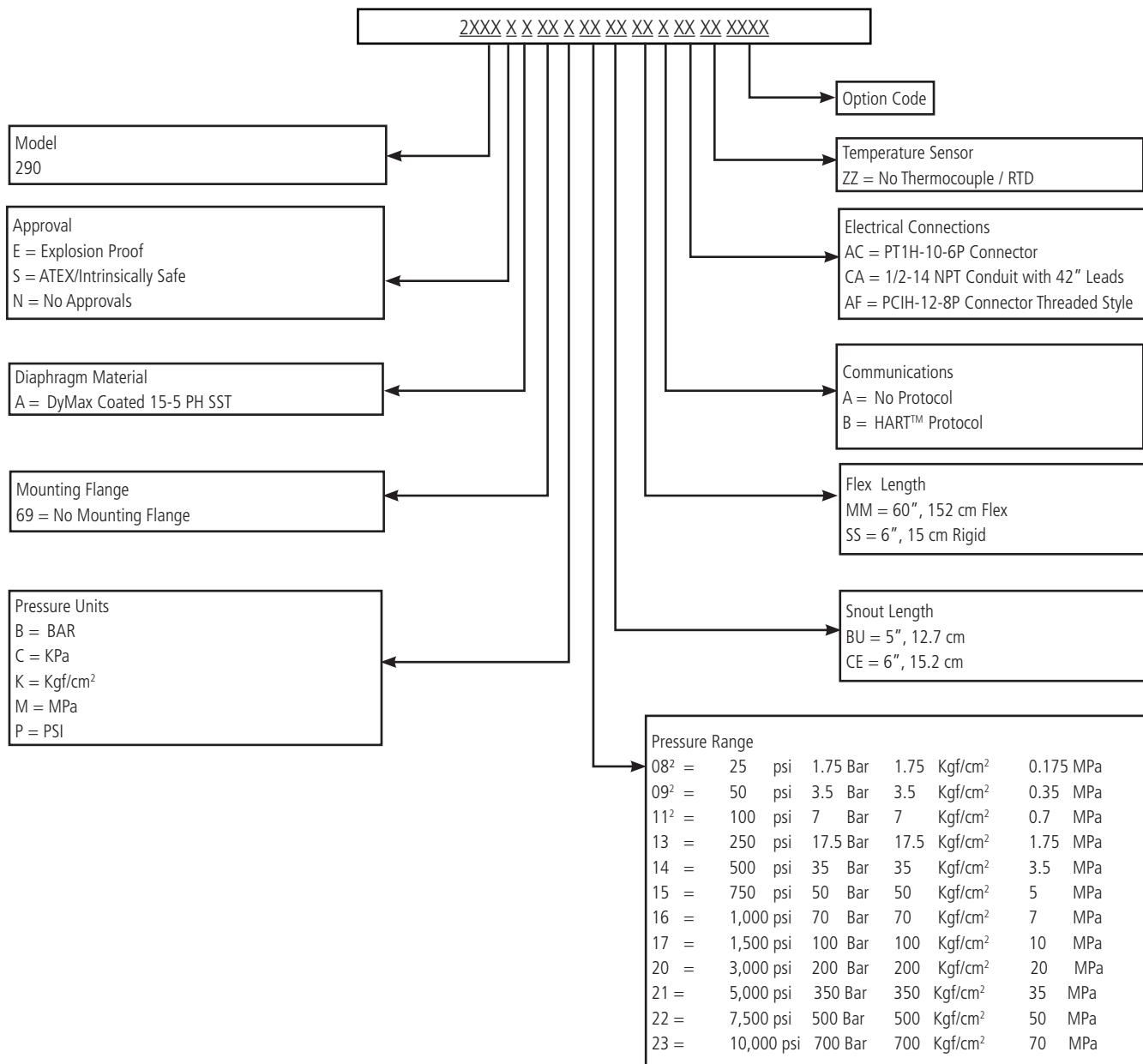
¹Other configurations are available. Please consult factory.

Ordering Guide for Models SPX2244¹



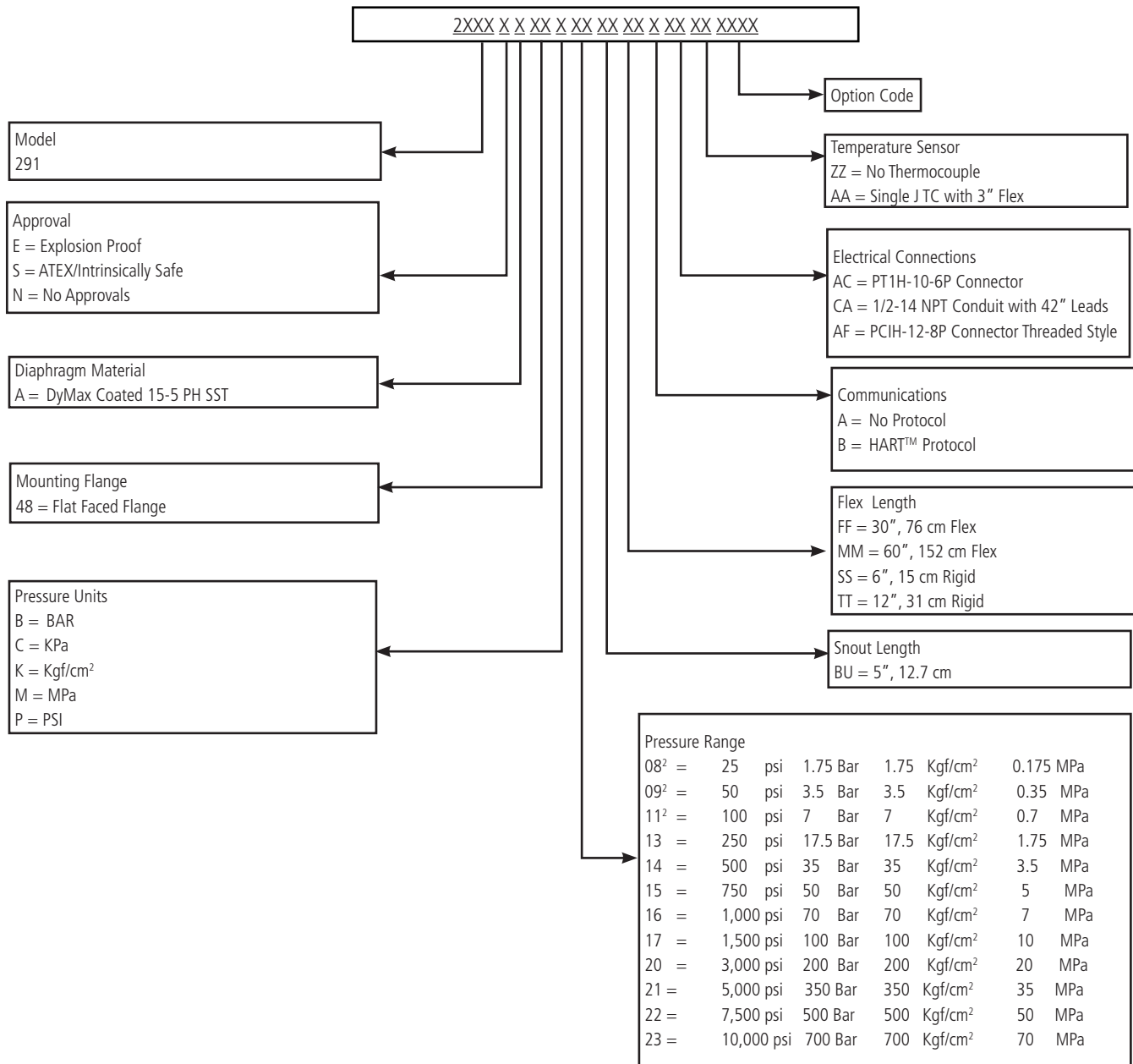
¹Other configurations are available. Please consult factory.

Ordering Guide for Models SPX2290¹

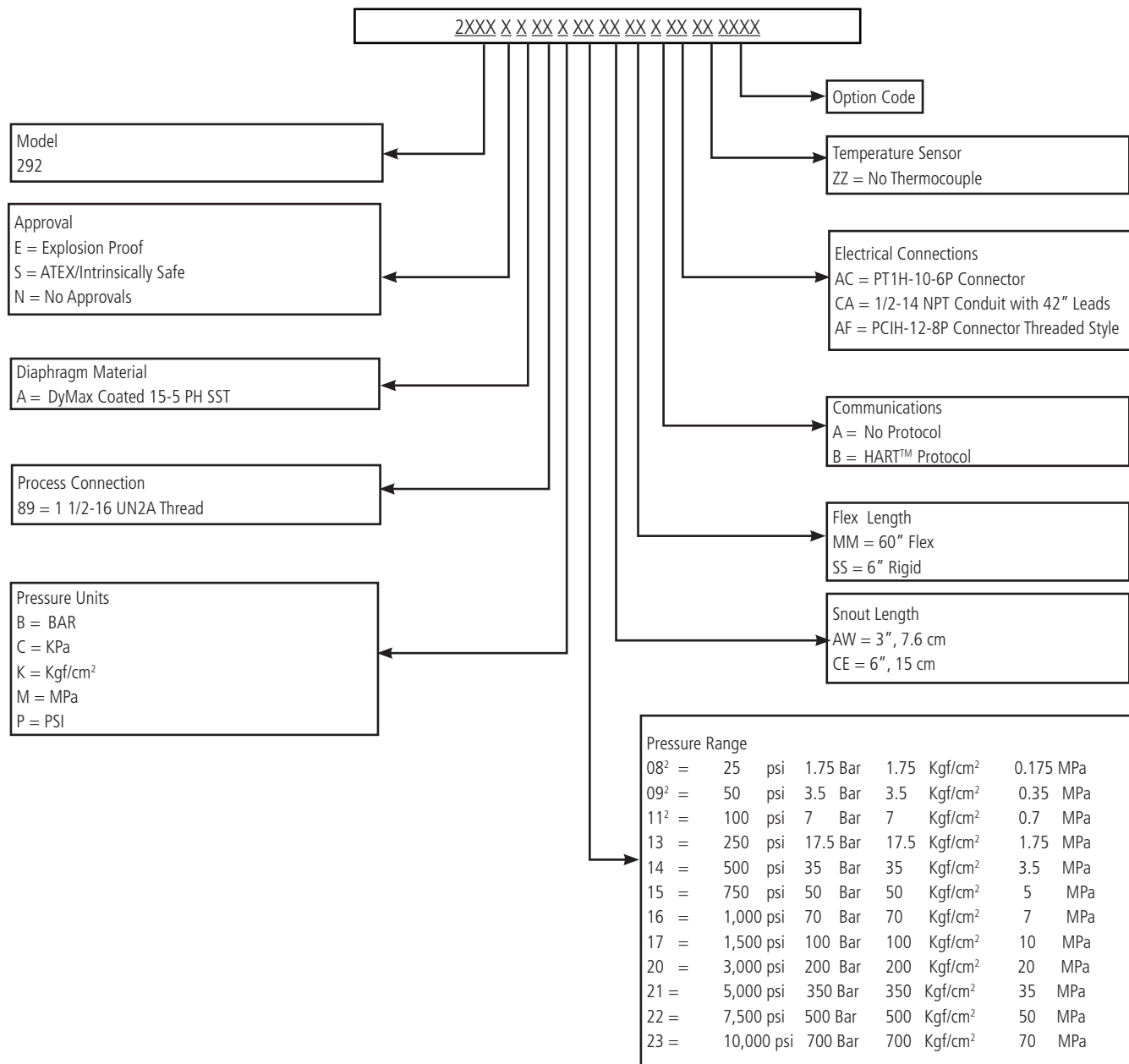


¹Other configurations are available. Please consult factory.

²Pressure ranges below 250 psi are supplied with rigid capillary

Ordering Guide for Models SPX2291¹¹Other configurations are available. Please consult factory.²Pressure ranges below 250 psi are supplied with rigid capillary

Ordering Guide for Models SPX2292¹



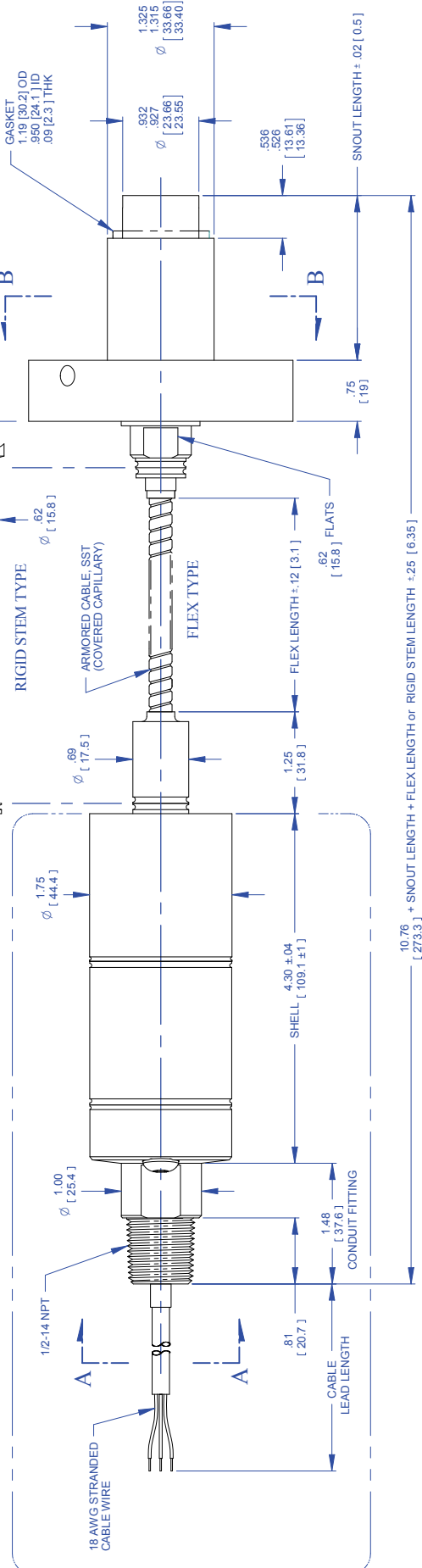
¹Other configurations are available. Please consult factory.

²Pressure ranges below 250 psi are supplied with rigid capillary

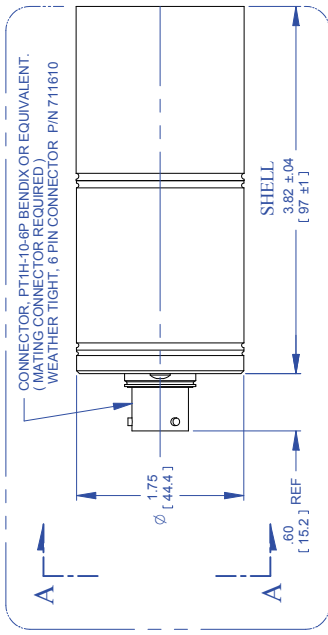
REV	ECO	BY	APP	DATE
B	46553	TP	LEB	07/29/16

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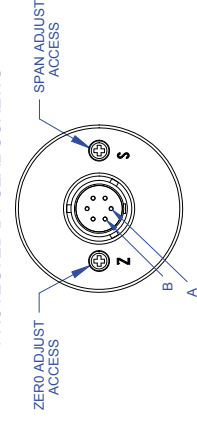
ELECTRICAL HOUSING, CONDUIT



ELECTRICAL HOUSING, CONNECTOR CONFIGURATION

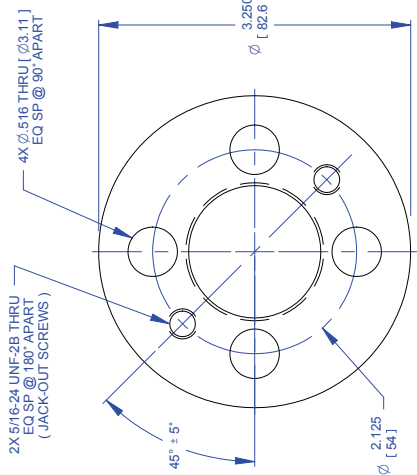


ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS

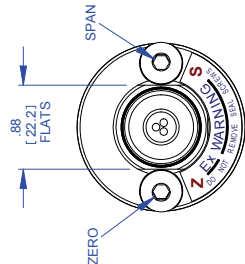


VIEW A-A

PIN	CONNECTOR WIRING
A	POWER + / SIGNAL +
B	POWER - / SIGNAL -
C	NO
D	CONNECTION
E	Rcal -
F	Rcal +



VIEW B-B
FLANGE



VIEW A-A
3 CONDUCTOR SHOWN

Cable Wiring	Color	Function
5 - Conductor	RED	POWER + / SIG +
	BLACK	POWER - / SIG -
	GREEN	GROUND
	ORANGE	Rcal +
3 - Conductor	BLUE	Rcal -

NOTES:

- ALL DIMENSIONS ARE INCHES [MILLIMETERS]
- EXPOSED SURFACES ARE STAINLESS STEEL.

TOLERANCES UNLESS OTHERWISE SPECIFIED:

- 1.2 PLACE DECIMAL 1.01
2. PLACE DECIMAL 1.005
3. DRILLS - .05 DIA. - .005
4. ANGLES 10° ± .005
5. EDGES R .005 OR CHAMFER MAX
6. PARTS AND DIMENSIONS ARE IN INCHES
7. ALL DIMENSIONS ARE IN INCHES

TITLE

SPX-GEN2 OUTLINE
MODELS 2241, 5341
FLEX & RIGID VERSIONS

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SIZE	REV
C	B

DRAWN	DATE	11/24/11
CHECKED	DATE	11/13/11
APPROVED	MUL	DATE
FINISH		

MODEL NO.	SPX-GEN2
DO NOT SCALE DRAWING	
MATERIAL	

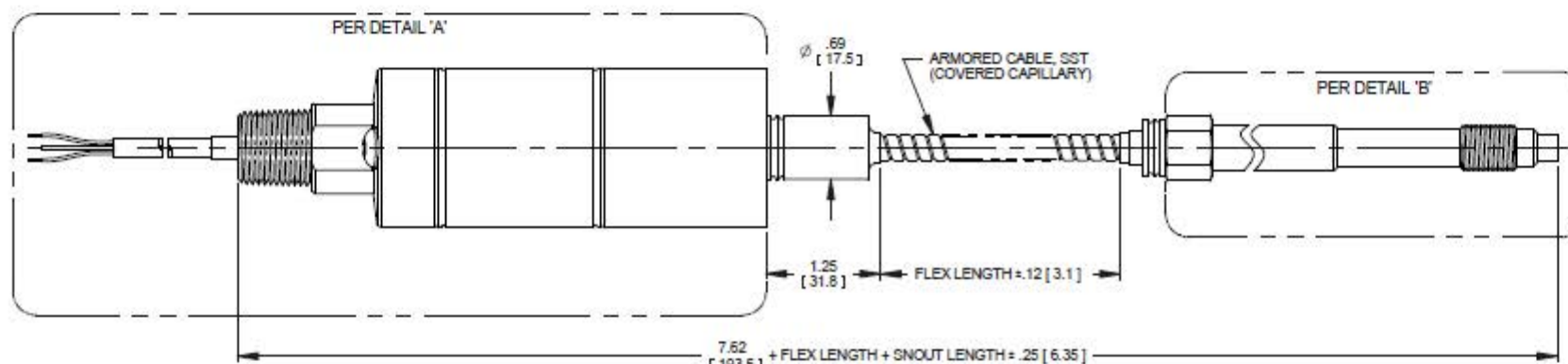
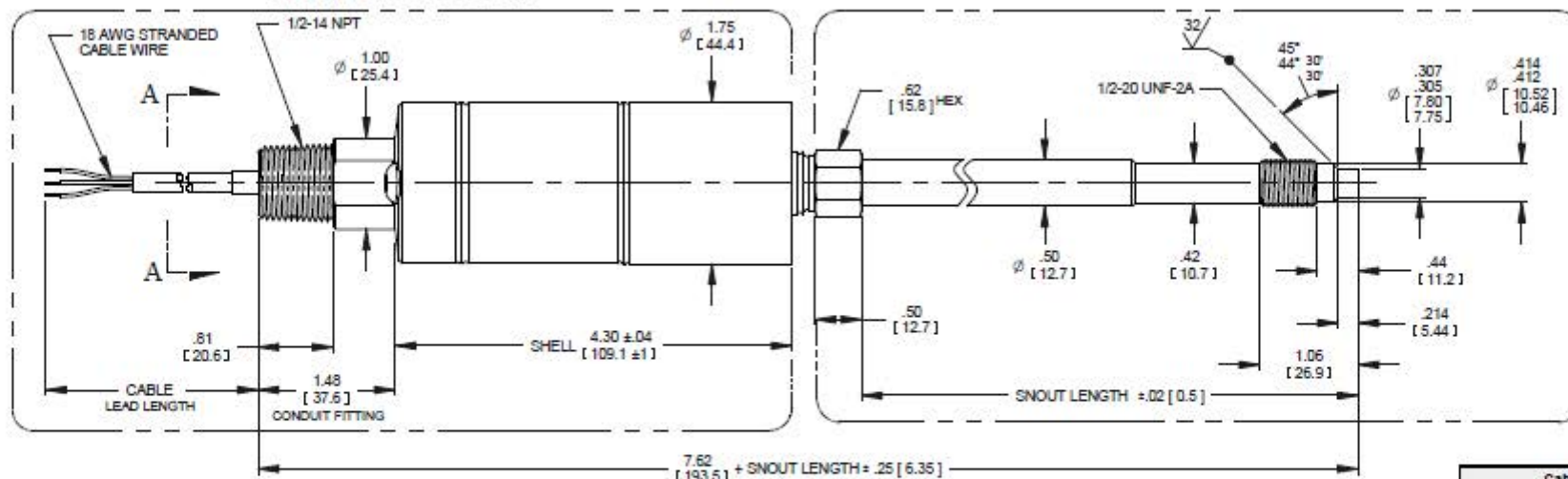
SCALE	NONE
SHEET	1 OF 1

REV	ECO	BY	APP	DATE
C	47068	TP	LEB	11/18/16

000616

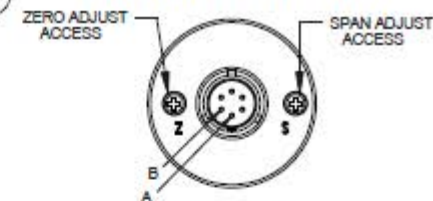
DETAIL 'A'
ELECTRICAL HOUSING, CONDUIT

DETAIL 'B'
1/2 - 20 PROCESS CONNECTION

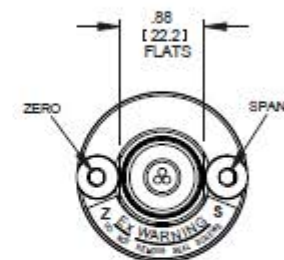


Cable Wiring		
Color	Function	
RED	POWER + / SIG +	
BLACK	POWER - / SIG -	
GREEN	GROUND	
ORANGE	Real +	
BLUE	Real -	

ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS

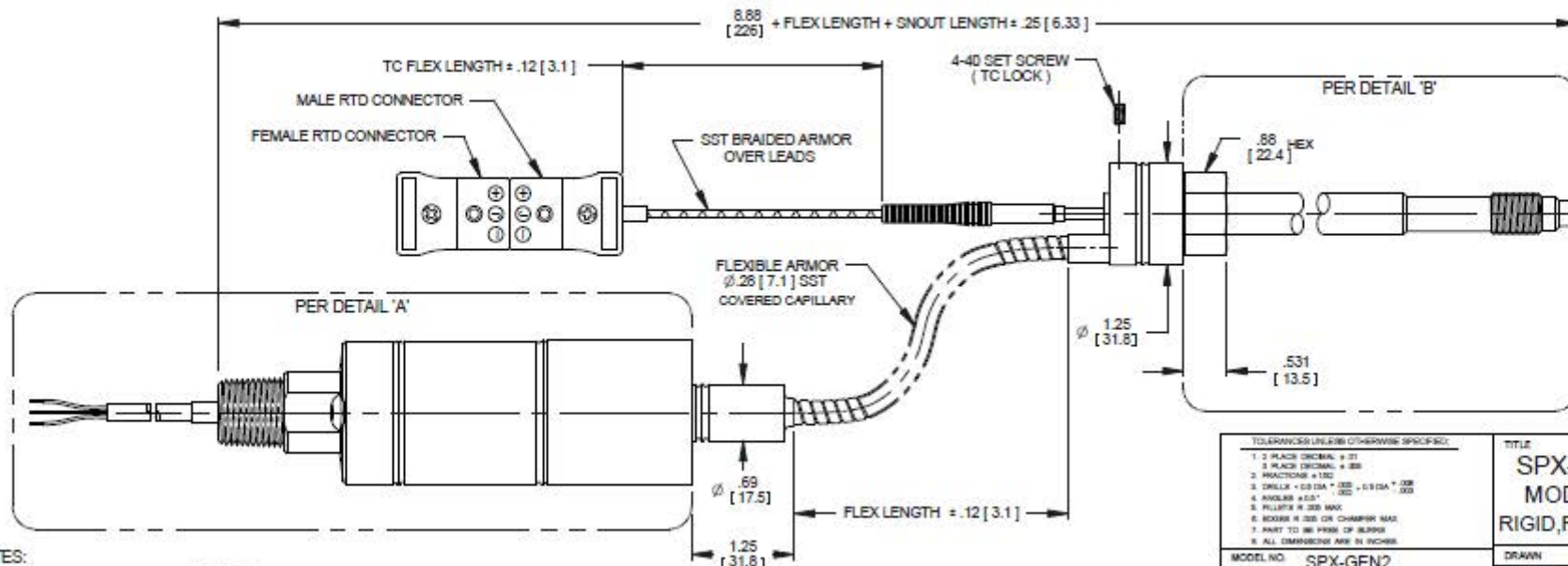


VIEW A-A



VIEW A-A

3 CONDUCTOR SHOWN



- NOTES:
- ALL DIMENSIONS ARE INCHES [MILLIMETERS]
 - EXPOSED SURFACES ARE STAINLESS STEEL.

TOLERANCES UNLESS OTHERWISE SPECIFIED	
1. 3 PLACE DECIMAL = .01	
2. 2 PLACE DECIMAL = .005	
3. FRACTIONS = 1/32	
4. DRILL = .0005 DIA. ± .0005, 1/16 DIA. ± .0005	
5. ANGLES = 0.01°	
6. RADIUS = .005 DIA. ± .0005	
7. HOLE = .0005 DIA. ± .0005	
8. HOLE = .0005 DIA. ± .0005	
9. HOLE = .0005 DIA. ± .0005	
10. HOLE = .0005 DIA. ± .0005	

SPX-GEN2 OUTLINE
MODELS 2242, 5342
RIGID, FLEX & TPT VERSION

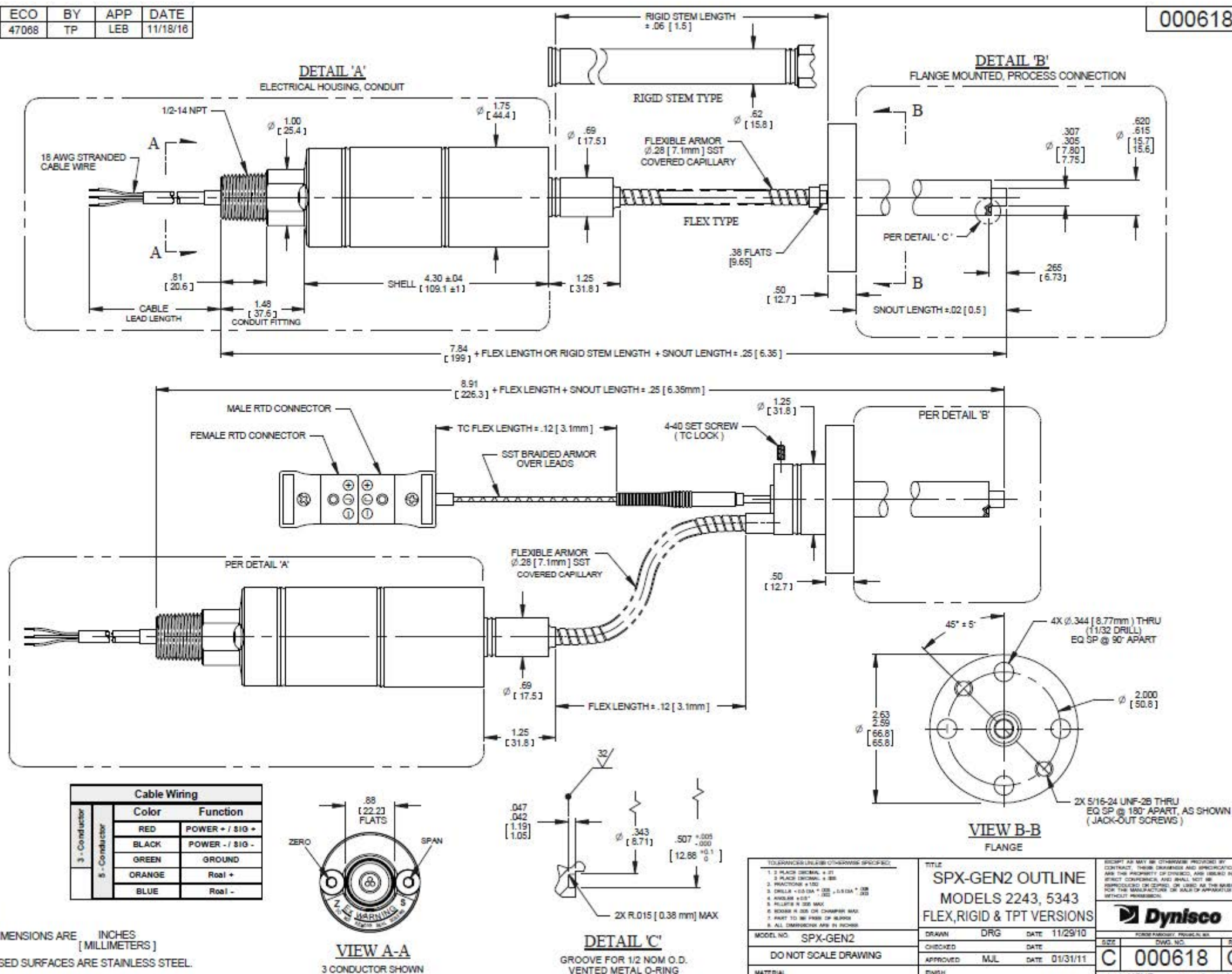
MODEL NO.	SPX-GEN2
DO NOT SCALE DRAWING	
MATERIAL	

DRAWN	DRG	DATE	11/29/10
CHECKED	DATE		
APPROVED	MJL	DATE	01/31/11
FINISH			

DYNISCO		
SIZE	DWG. NO.	REV
C	000616	C
SCALE: NONE	SHEET 1 OF 1	

REV	ECO	BY	APP	DATE
C	47068	TP	LEB	11/18/16

000618



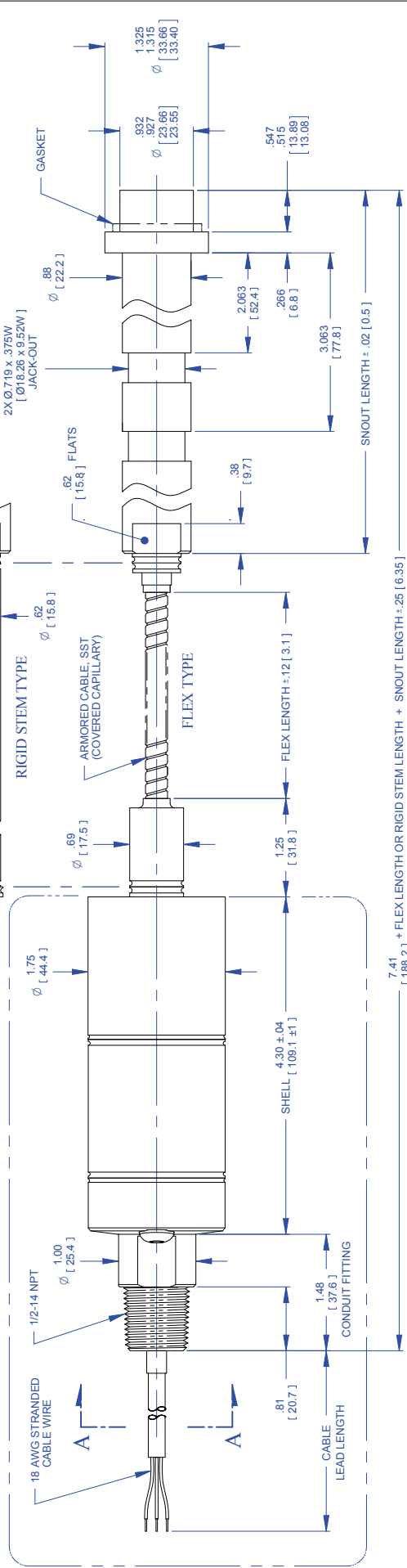
NOTES:

- ALL DIMENSIONS ARE INCHES [MILLIMETERS]
- EXPOSED SURFACES ARE STAINLESS STEEL.

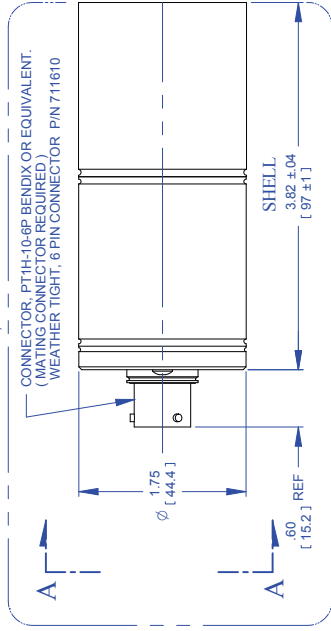
REV	ECO	BY	APP	DATE
B	46553	TP	LEB	07/29/16

000622

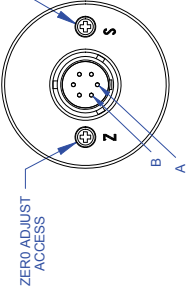
DETAIL 'A'
ELECTRICAL HOUSING, CONDUIT



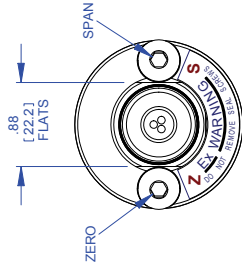
ELECTRICAL HOUSING, CONNECTOR CONFIGURATION



ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS



CONNECTOR WIRING	
PIN	FUNCTION
A	POWER + / SIGNAL +
B	POWER - / SIGNAL -
C	NO
D	CONNECTION
E	Rcal -
F	Rcal +



VIEW A-A

3. CONDUCTOR SHOWN

Cable Wiring	
Color	Function
RED	POWER + / SIG +
BLACK	POWER - / SIG -
GREEN	GROUND
ORANGE	Rcal +
BLUE	Rcal -

NOTES:

- ALL DIMENSIONS ARE INCHES [MILLIMETERS]
- EXPOSED SURFACES ARE STAINLESS STEEL

TOLERANCES UNLESS OTHERWISE SPECIFIED:

1. 2 PLACE DECIMAL ±.01
2. 3 PLACE DECIMAL ±.005
3. 4 PLACE DECIMAL ±.0005
4. DRILLS < Ø.50 DIA. ±.005 > Ø.50 DIA. ±.008
5. ANGLES ± 0.5° MAX
6. EDGES R .005 OR CHAMFER MAX
7. PARTS ARE TO BE DIMENSIONED IN INCHES
8. ALL DIMENSIONS ARE FINISHES

TITLE

SPX-GEN2 OUTLINE
MODELS 2290, 5390
FLEX & RIGID VERSIONS

MODEL NO

SPX-GEN2

DRAWN

DATE

12/08/10

CHECKED

DATE

01/31/11

APPROVED

MUL

FINISH

DO NOT SCALE DRAWING

MATERIAL

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Dynisco

FORGE PARKWAY, FRANKLIN, VA

SIZE

DWG NO.

REV

C

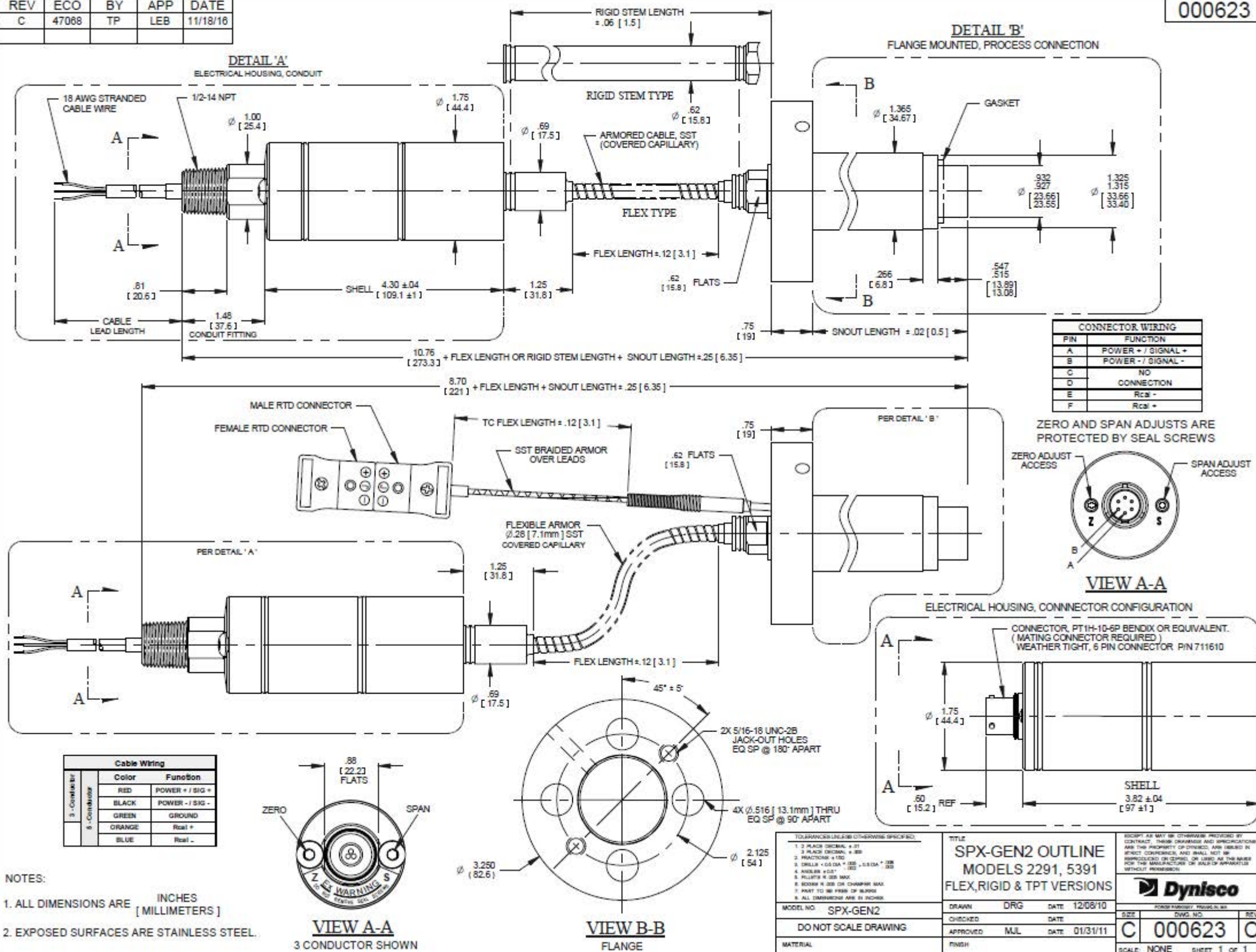
000622

B

SCALE

NONE

SHEET 1 OF 1

000623

REV	ECO	BY	APP	DATE	000652		
A	46553	TP	LEB	07/29/16	R		

8 - PIN PC
O-RING WITH PUSH BUTTONS
PCIH-12-8P

8 - PIN PC
WELDED WITH PUSH BUTTONS
PCIH-12-8P

8 - PIN PC
WELDED WITH HALLS
PCIH-12-8P

GUARDIAN CONNECTOR WIRING	
PIN	FUNCTION
A	POWER +
B	SIGNAL -
C	POWER -
D	NO CONNECTION
E	Rcal -
F	Rcal +
G	RELAY CONTACT
H	RELAY CONTACT

NOTE:
1. THESE CONNECTOR OPTIONS ARE AVAILABLE ON MOST OF THE CONFIGURATIONS SHOWN ON THE PREVIOUS SHEETS.

TITLE

GUARDIAN SERIES CONNECTORS

TOLERANCES UNLESS OTHERWISE SPECIFIED:
1. 1 PLACE DECIMAL ± .005
2. FRACTIONS ± 1/32
3. DRILLS < 0.5 DIA. ± .002 > 0.5 DIA. ± .003
4. ANGLES ± 0.5°
5. DIMENSIONS MAX.
6. EDGES R .006 OR CHAMFER MAX
7. PART TO BE FREE OF BURRS
8. ALL DIMENSIONS ARE IN INCHES.

DRAWN TP DATE 7/27/16

CHECKED DATE

APPROVED LEB DATE 7/27/16

FINISH 63

MODEL NO. X

DO NOT SCALE DRAWING

MATERIAL X

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FORCE INNOVATION. FRANKLIN, MA

SIZE B

DWG. NO. 000652

REV A

SCALE NONE SHEET 1 OF 1

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Refer to www.dynisco.com for access to Operator Manual and other support documentation.
PN: DSSPX2SERIES
REV: 1116
ECO: 470658



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Product Safety
Functional
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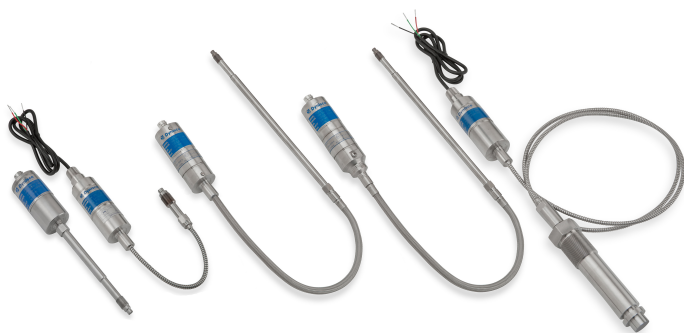


From lab to production,
providing a window into the process



Dynisco SPX 4-Series

GENERAL PURPOSE SMART PRESSURE SENSORS
FOR HAZARDOUS LOCATIONS



Description

The Dynisco SPX 4-Series is a smart 4-20mA pressure transmitter designed for use in hazardous locations and are available with a variety of different process and electrical connections

These amplified transmitters eliminate the need for external signal conditioning. All models can interface directly with distributed control systems, PLC's, computers, and similar high level control devices. Optional thermocouple or RTD configurations are available to provide melt temperature.

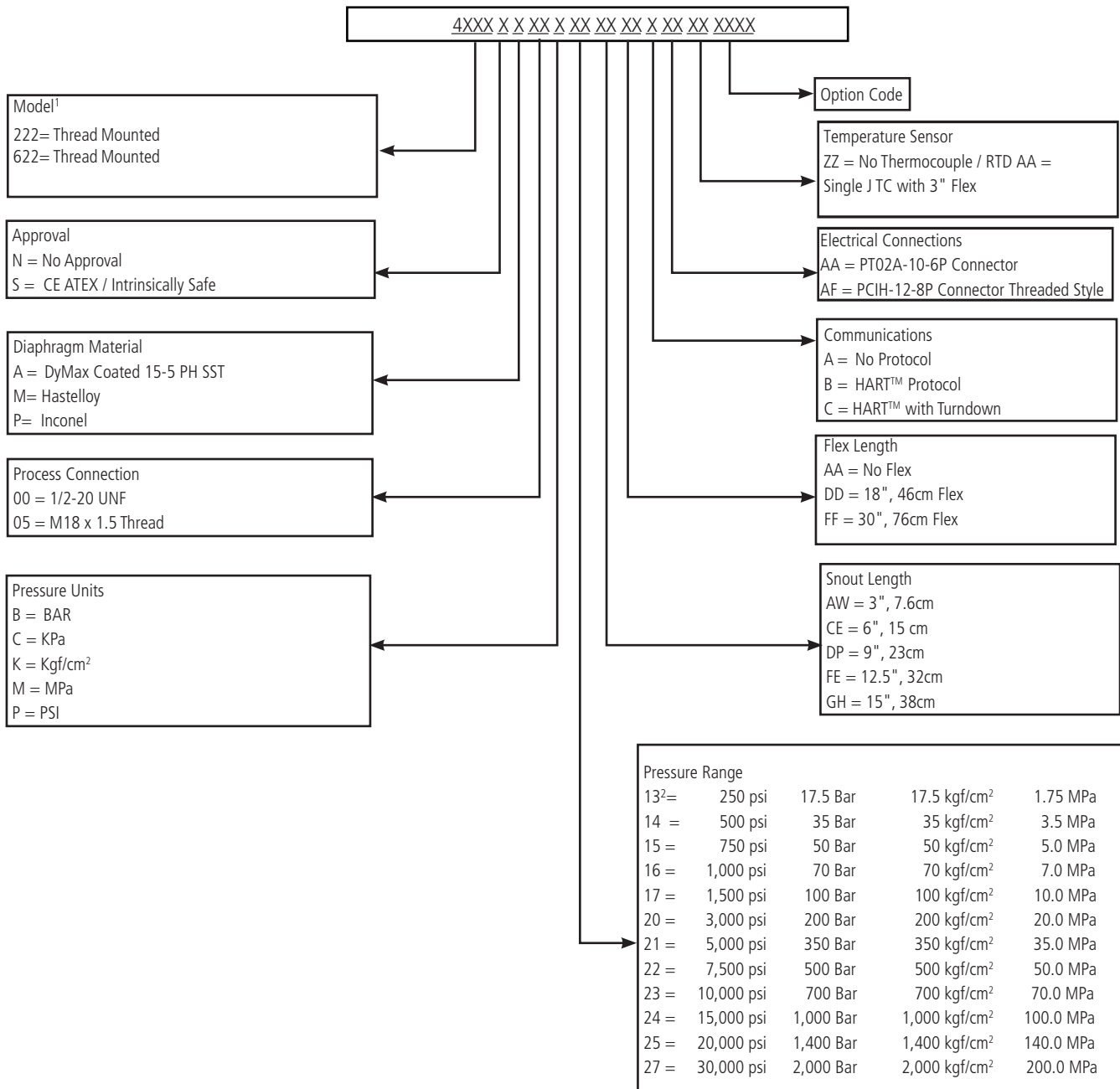
Features

- 4-20mA loop-powered output
- +/- 0.25% accuracy available
- Wide selection of pressure ranges available
- Turndown 6:1
- Configurations available for use in hazardous locations
- Remotely configurable via HART
- Precise, repeatable pressure measurements
- Output supplied directly to DSC or PLC
- Meets CE requirements
- CE ATEX Intrinsically Safe Approved
- IECEx Intrinsically Safe
- SIL 2 Certified (pressure output)
- PL 'c' Certified (relay output)
- Additional approvals are available

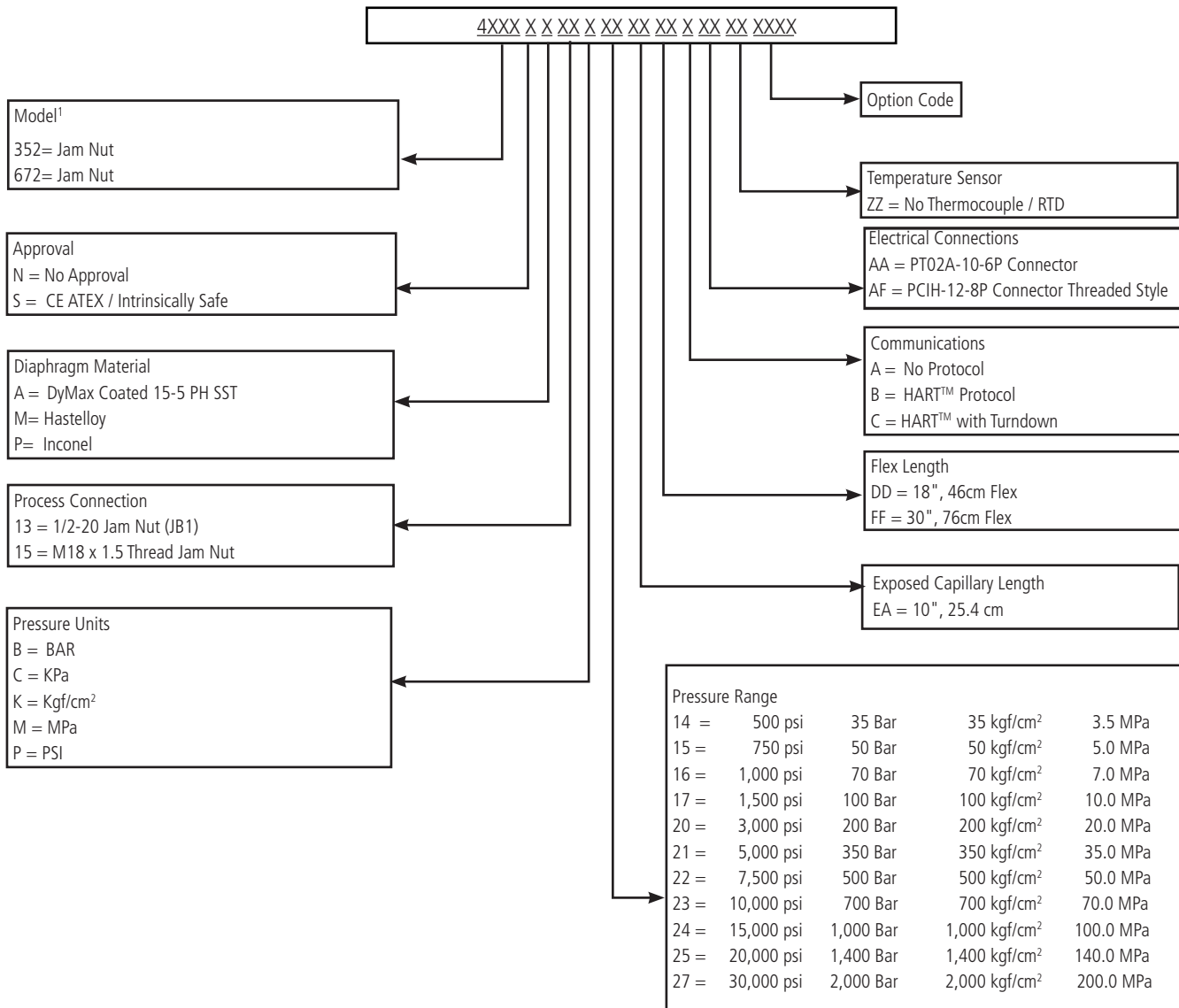
Performance Characteristics	
Output	4 - 20 mA, with optional HART™
Input Voltage	16 - 36 Vdc (Std); 16 - 30 Vdc (ATEX IS)
Accuracy <i>Accuracy is defined as the combined error expressed as a percentage of full scale output with the specifications of: Electronics ambient temperature, capillary of <= 36"; DyMax coated 15-5 SST diaphragm; Best Straight Line (BSL) %FS, per ISA-37.1 Consult Factory for availability and specifications of other configurations.</i>	4222 ± 0.25% for pressure ranges ≥ 1,500 psi; ± 0.50% for pressure ranges < 1,500 psi 4232 ± 0.25% for pressure ranges ≥ 1,500 psi; ± 0.50% for pressure ranges < 1,500 psi 4352 ± 0.25% for pressure ranges ≥ 1,500 psi; ± 0.50% for pressure ranges < 1,500 psi 4502 ± 0.50% 4622 ± 0.50% 4672 ± 0.50%
Repeatability	±0.1%
Rangeability	6:1 Turndown
Over Pressure	2X FSO or 35,000 psi, whichever is less 1.2 X FSO 35,000 - 72,500 psi
Zero Balance Adjustment Range	-40% to +10%; -80% to 20% for FSP < 500 psi
Load Resistance	500 Ω @ 24 Vdc, 1,000 Ω @ 36 Vdc
Electronics Ambient Temperature	70°F (20°C)
Electronics Operating Temperature	-20 to 185°F (-29 to 85°C)
Diaphragm Temperature	750°F (400°C) max [SPX4502 model limited to 600°F (315°C)]
Electronics Compensated Temperature Range	0 to 150°F (-18 to 65°C)
Zero Shift (Electronics Temp Change)	4222: 0.01% F.S./°F max (0.02% F.S./°C max) 4232: 0.01% F.S./°F max (0.02% F.S./°C max) 4352: 0.01% F.S./°F max (0.02% F.S./°C max) 4502: 0.01% F.S./°F max (0.02% F.S./°C max) 4622: 0.05% F.S./°F max (0.10% F.S./°C max) 4672: 0.05% F.S./°F max (0.10% F.S./°C max)
Span Shift (Electronics Temp Change)	4222: 0.01% F.S./°F max (0.02% F.S./°C max) 4232: 0.01% F.S./°F max (0.02% F.S./°C max) 4352: 0.01% F.S./°F max (0.02% F.S./°C max) 4502: 0.01% F.S./°F max (0.02% F.S./°C max) 4622: 0.02% F.S./°F max (0.04% F.S./°C max) 4672: 0.02% F.S./°F max (0.04% F.S./°C max)
Zero Shift (Snout Temp Change)	4222: 15 psi/100°F (27 psi/100°C) typical 4232: 15 psi/100°F (27 psi/100°C) typical 4352: 15 psi/100°F (27 psi/100°C) typical 4502: 1 psi/100°F (from 75-450°F); 2 psi/100°F (from 450-600°F) typical 4622: 25 psi/100°F (45 psi/100°C) typical 4672: 25 psi/100°F (45 psi/100°C) typical

Mechanical Characteristics	
Mounting Torque	4222: 500 inch-lbf max 4232: 50 inch-lbf max 4352: 500 inch-lbf max 4502: 350 inch-lbf max 4622: 500 inch-lbf max 4672: 500 inch-lbf max
Standard Wetted Parts	DyMax coated 15-5 PH SST
Approvals & Certifications	
ATEX/IECEX Intrinsically Safe	
SIL 2 (pressure output) & PL'c' (relay output)	
Additional approvals available (consult factory)	

Ordering Guide for Models SPX4222 & SPX4622

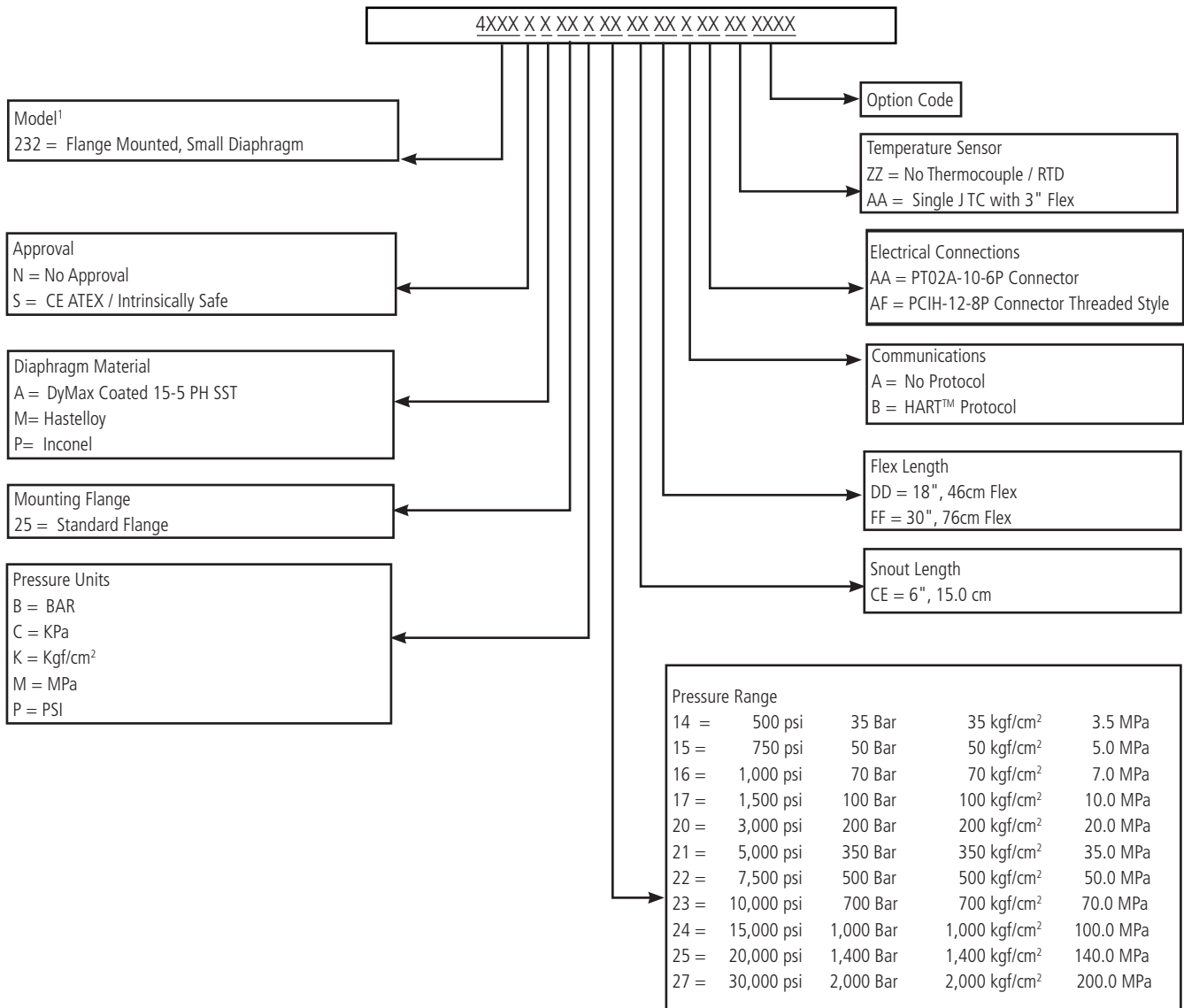
¹Other configurations are available. Please consult factory.²Available in M18 x 1.5 thread only

Ordering Guide for Models SPX4352 & SPX4672



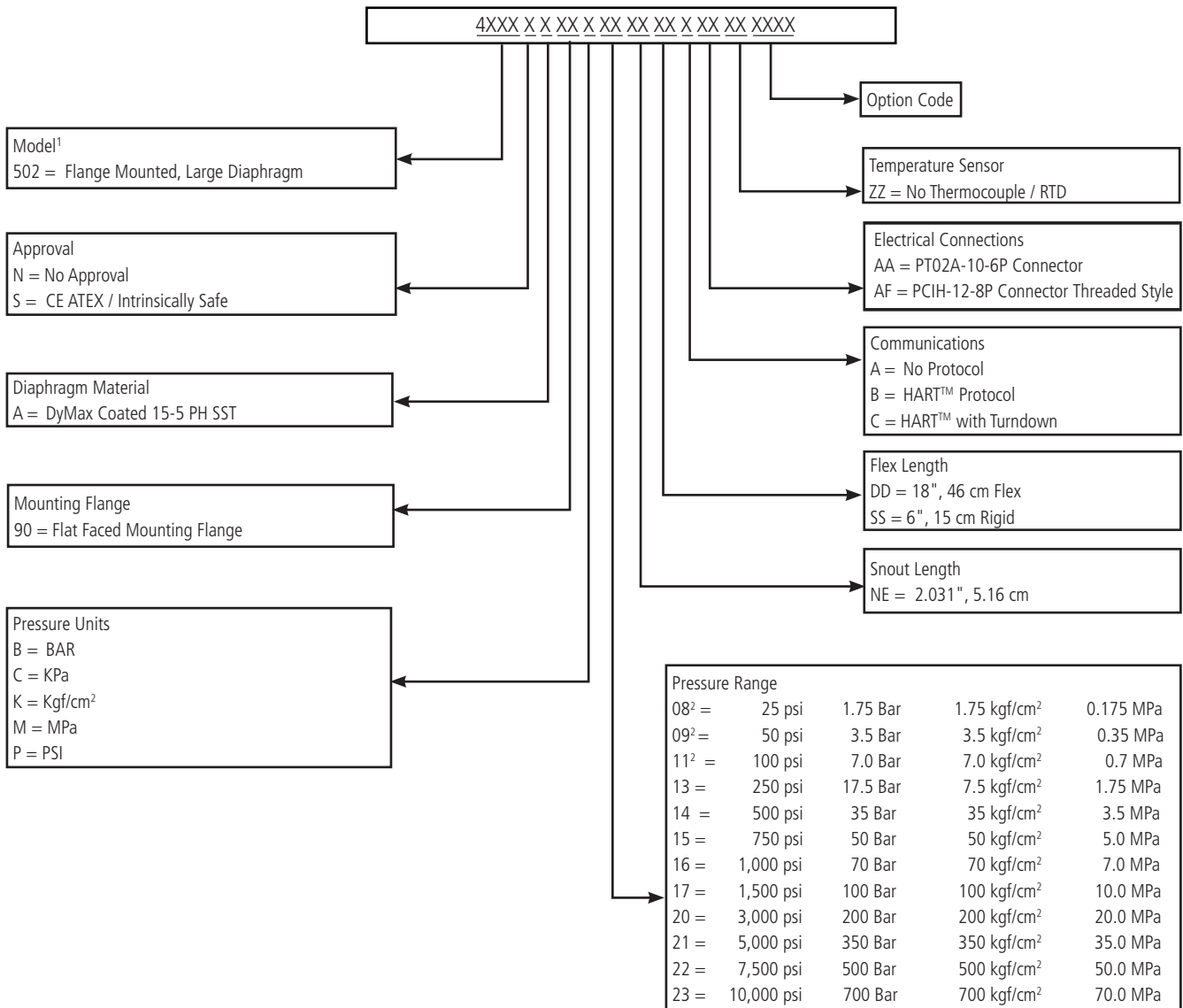
¹Other configurations are available. Please consult factory.

Ordering Guide for Model SPX4232



¹Other configurations are available. Please consult factory.

Ordering Guide for Model SPX4502

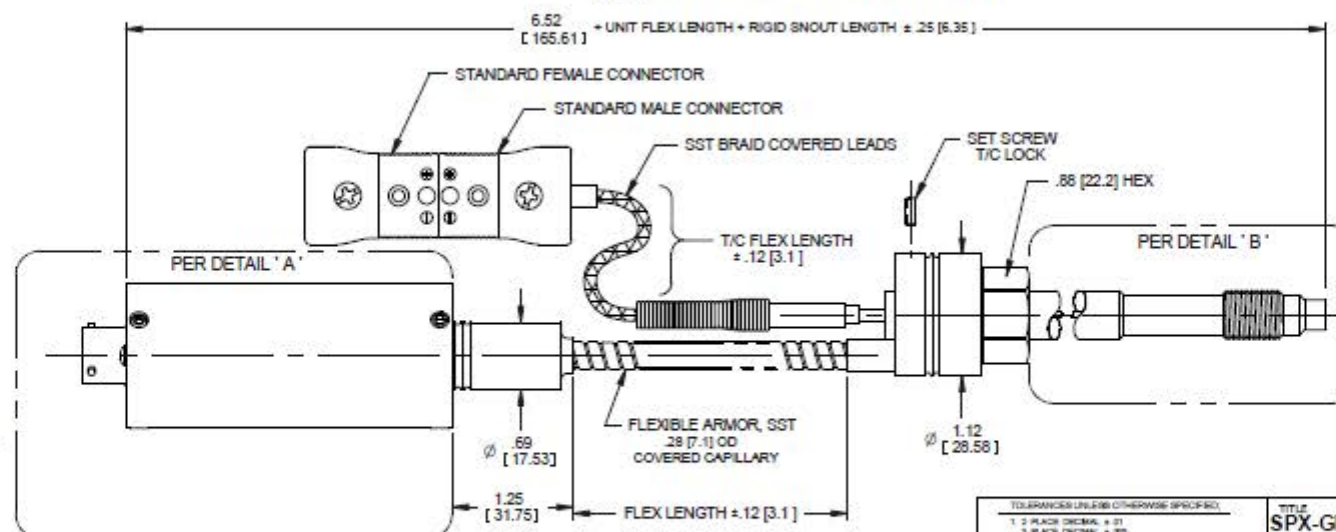
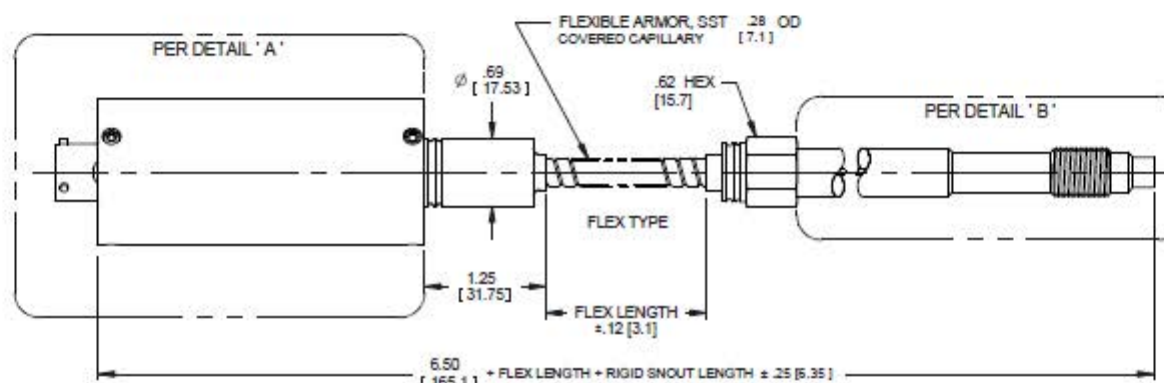
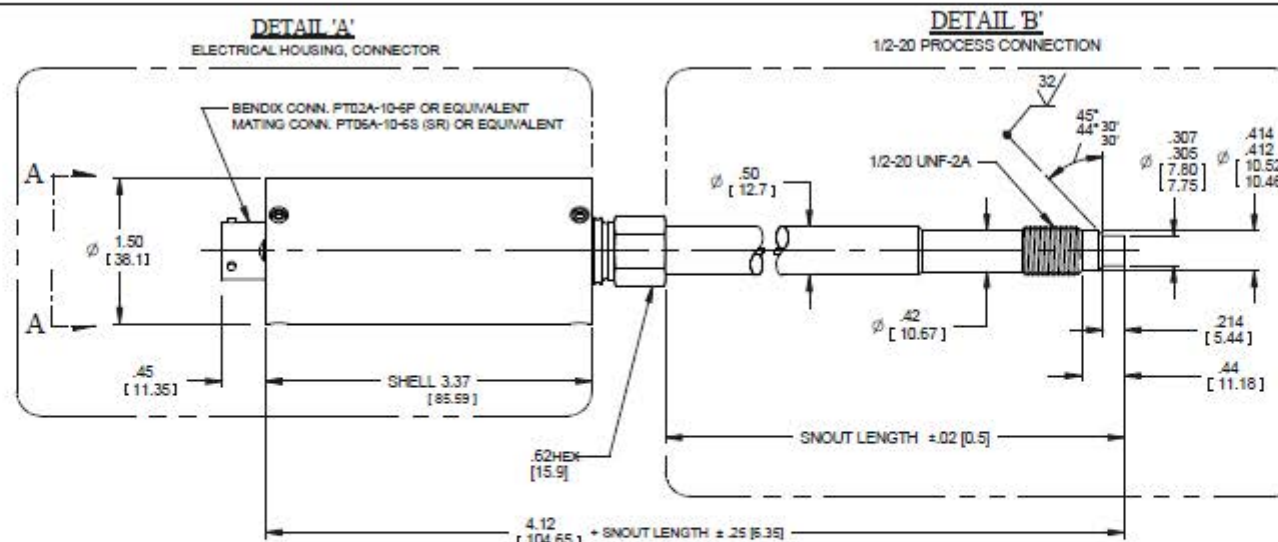


¹Other configurations are available. Please consult factory.

²Pressure ranges below 250 psi are supplied with rigid capillary.

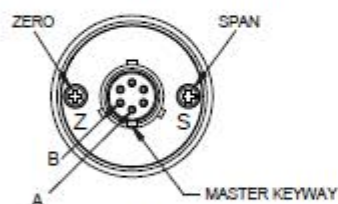
REV	ECO	BY	APP	DATE	
C	47068	TP	LEB	11/18/16	R

000405



CONNECTOR WIRING	
PIN	FUNCTION
A	POWER + / SIGNAL +
B	POWER - / SIGNAL -
C	NO
D	CONNECTION
E	Rcal -
F	Rcal +

ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS



VIEW A-A

NOTES:

UNLESS OTHERWISE SPECIFIED:

1. ALL DIMENSIONS ARE IN INCHES
[MILLIMETERS]

TOLERANCES UNLESS OTHERWISE SPECIFIED:

1. 2 PLACE DECIMAL ± .01
2. 3 PLACE DECIMAL ± .005
3. FRACTIONS ± .001
4. DRILL - .001 DIA ± .002, .001 DIA ± .002
5. ANGLES ± .05°
6. RADIUS ± .001
7. RADIUS ± .001
8. RADIUS ± .001
9. RADIUS ± .001
10. RADIUS ± .001

MODEL NO.	X
DO NOT SCALE DRAWING	
MATERIAL	X

TITLE

SPX-GEN2 OUTLINE MODELS
4222, 4622
FLEX, RIGID & TPT

DRAWN	DRG	DATE	7/20/10
CHECKED		DATE	
APPROVED	MJL	DATE	7/20/10
FINISH	63		

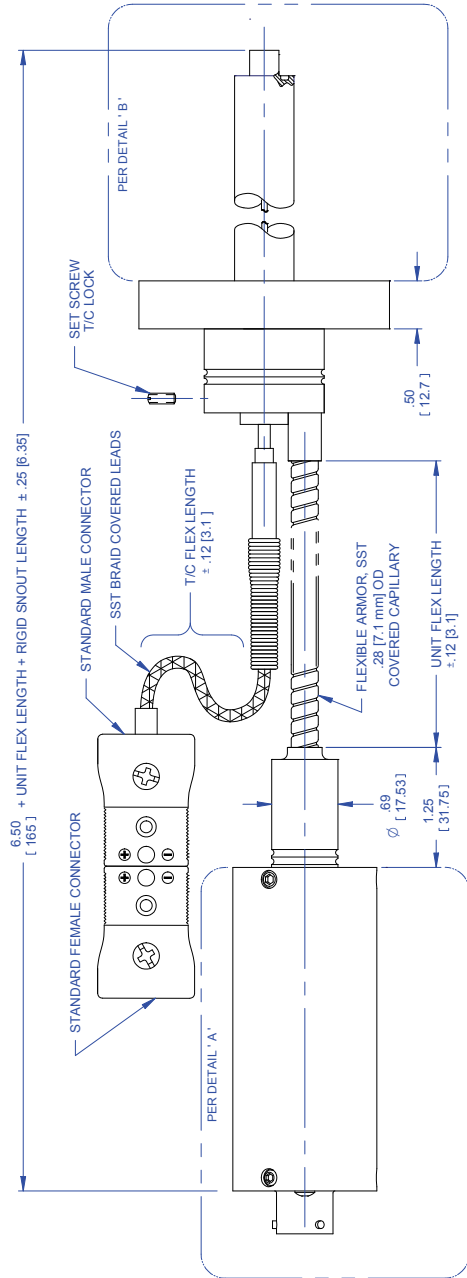
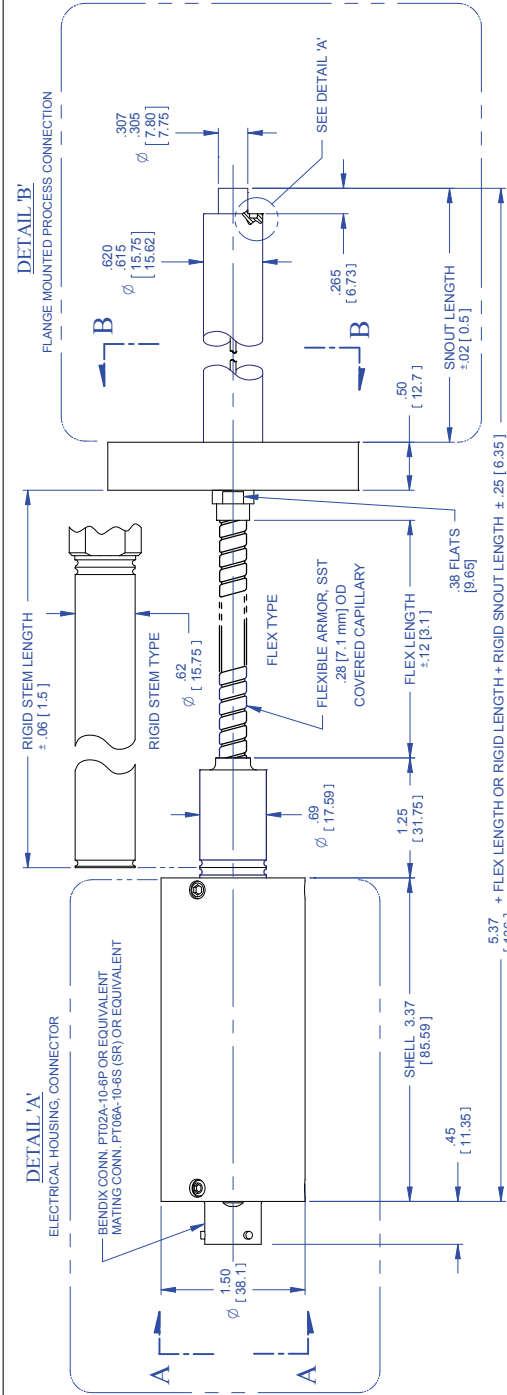
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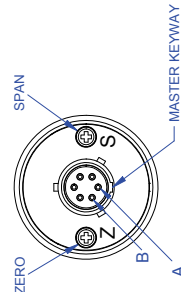
SIZE	DWG. NO.	REV
C	000405	C
SCALE	NONE	SHEET 1 OF 1

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000408

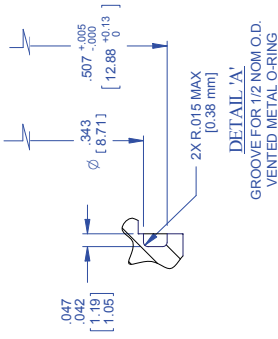


ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS



VIEW A-A

NOTES:
UNLESS OTHERWISE SPECIFIED:
1. ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]



TOLERANCES UNLESS OTHERWISE SPECIFIED:		TITLE	
1. 2 PLACE DECIMAL ±.01		SPX-GEN2 OUTLINES	
2. 3 PLACE DECIMAL ±.005		MODEL 4232	
3. DRILLS ±.005 DIA. ±.008		FLEX, RIGID & TPT	
4. ANGLES ±.05° MAX		DRAWN	DG
5. EDGES R .005 OR CHAMFER MAX		CHECKED	DATE 07/20/10
6. ALL DIMENSIONS ARE IN INCHES		APPROVED	DATE 07/20/10
7. ALL DIMENSIONS ARE IN INCHES		FINISH	63
MODEL NO. SPX-GEN2		SCALE NONE	
DO NOT SCALE DRAWING		SHEET 1 OF 1	
MATERIAL X		SCALE NONE	

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8 - PIN PC
O-RING WITH PUSH BUTTONS
PCIH-12-8P

8 - PIN PC
WELDED WITH PUSH BUTTONS
PCIH-12-8P

8 - PIN PC
WELDED WITH HALLS
PCIH-12-8P

GUARDIAN CONNECTOR WIRING	
PIN	FUNCTION
A	POWER +
B	SIGNAL -
C	POWER -
D	NO CONNECTION
E	Rcal -
F	Rcal +
G	RELAY CONTACT
H	RELAY CONTACT

NOTE:
1. THESE CONNECTOR OPTIONS ARE AVAILABLE ON MOST OF THE CONFIGURATIONS SHOWN ON THE PREVIOUS SHEETS.

TOLERANCES UNLESS OTHERWISE SPECIFIED:

1. PLACES DECIMAL ± .005
2. FRACTIONS ± 1/32
3. DRILLS < 0.5 DIA. ± .002 > 0.5 DIA. ± .003
4. ANGLES ± 0.5°
5. SURF FINISH 125 MAX
6. EDGES R .006 OR CHAMFER MAX
7. PART TO BE FREE OF BURRS
8. ALL DIMENSIONS ARE IN INCHES.

GUARDIAN SERIES CONNECTORS

DRAWN	TP	DATE	7/27/16
CHECKED		DATE	
APPROVED	LEB	DATE	7/27/16
FINISH	63		

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MATERIAL X

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SCALE NONE SHEET 1 OF 1

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Refer to www.dynisco.com for access to Operator Manual and other support documentation.
P/N: DSSPX4SERIES
REV: 1116
ECO: 47068



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DYNISCO MODEL 1192

Smart Pressure Transmitter for Thread Mounting

Description

Dynisco's IPX II Series 1192 is a high performance, microprocessor based transmitter with ambient and sensor temperature compensation, featuring a thin film sensor and proprietary fabrication techniques. The Model 1192 provides the highest accuracy pressure measurement available in a 1/2 - 20 UNF mounting. Ranging and setup of the transmitter may be accomplished with a dual LCD display, the Windows™ based Smartlink software or by using a HART® communicator.

Features

- Accuracy of $\pm 0.15\%$ of range compensated for temperature (range specific)
- Temperature compensation
- 4 to 20 mA, 2 - wire output
- 6:1 span turn - down capability
- Split design
- Optional second 4 to 20 mA signal for temperature
- Optional programmable LCD display
- HART digital communication
- FM approved models
- Intrinsically safe models

Benefits

- Improves process optimization and removes temperature effects
- Improves accuracy
- Process industry standard
- Allows use in multiple ranges
- Easy to install
- Output temperature signal to display system
- At line readout of pressure or temperature
- Process industry standard
- Approved for operation in hazardous areas
- Approved for EEx ia IIC



Specifications

NEW
EXTENDED
LIFE
COATING

Performance Characteristics

Ranges:

psi: 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000

bar: 0 - 100, 0 - 200, 0 - 350, 0 - 500, 0 - 680

Accuracy 0 to 3000 psi and above:

$\pm 0.15\%$ of full scale range: Within 20% to 100% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.25\%$ for 1500 psi range)

$\pm 0.25\%$ of full scale range: Within 0% to 20% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.50\%$ for 1500 psi range)

Hastelloy:

$\pm 0.30\%$ of full scale range: Within 20% to 100% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.25\%$ for 1500 psi range)

$\pm 0.50\%$ of full scale range: Within 0% to 20% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 1.00\%$ for 1500 psi range)

Resolution: 0.035% full scale or better

Zero span and adjustment: Zero: +84% of range; Span: 16% to 100% of range

Turn-down: 6:1

Overpressure limit: 1.5 x range

Sample rate: >10/sec

Long term stability: <0.09% of full scale per year

Temperature Characteristics

Operating temperature ranges (compensated):

Process: 77°F to 575°F (25°C to 300°C) optional to 660°F (350°C)

Electronics: 77°F to 176°F (25°C to 80°C)

Temperature effects:

Electronics: $\pm 0.15\%$ span/99°F ($\pm 0.15\%$ span/55°C)

Electrical Characteristics

Output: 2 - wire, 4 to 20 mA. Hart digital communication superimposed on the 4 to 20 mA signal is available for remote configurations.

Damping: 0 to 32 second time constant, adjustable through HART communicator or SmartLink Software.

Power supply: 12 to 42 Vdc for non intrinsically safe; 12 to 30 Vdc for intrinsically safe.

Electronics housing: IP66, NEMA 4x

Load limitation: Maximum loop resistance is determined by the voltage of the external power supply. Digital communication requires a minimum loop resistance of 250 Ohms. (See below)

LCD Display

Allows transducer to be configured and ranged at line before or after installation. Displays process pressure, 0 - 100% bar graph and temperature (optional).

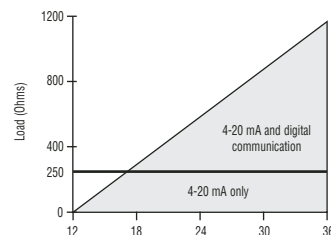
Approvals

CE approved

FM approved, Explosion - Proof, Class I, Division I, Groups B, C and D,

Class II/III, Division 2, Groups E, F and G (optional),

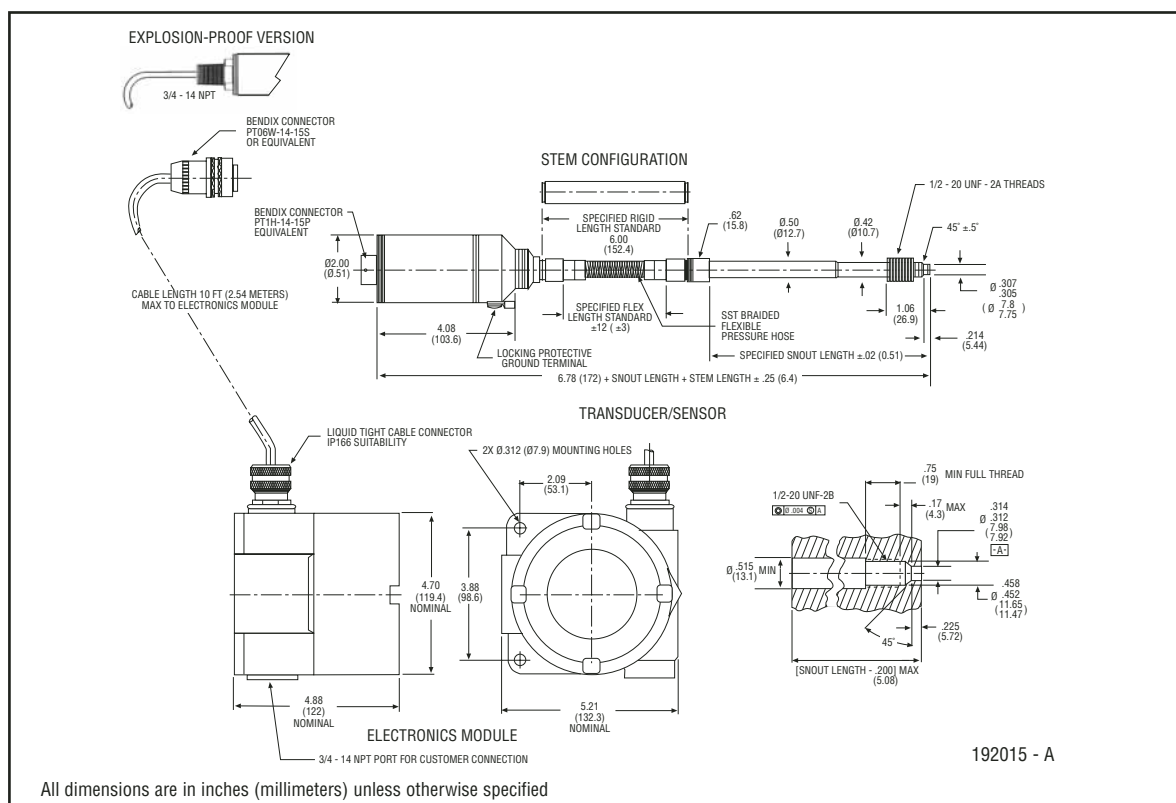
SIRA approved, Intrinsically Safe, EEx ia IIC (optional)



(Shown for standard unit without LCD display)

DYNISCO MODEL 1192

Smart Pressure Transmitter for Thread Mounting



Ordering Guide

Model	Diaphragm Material		Pressure Range				Standard Snout Lengths	
	Code	Description	Code	psi	Code	bar	Code	Length
N1192: No Approvals S1192: Intrinsically Safe EE x ia IIC E1192: Explosion-Proof Class 1, Division 1, Groups B, C and D Class II/III, Division 2, Groups E, F and G	(Blank)	15-5 PH SST	1.5M	0 - 1,500	1CB	0 - 100	6	6" (152)
		with	3M	0 - 3,000	2CB	0 - 200	9	9" (229)
		Dymax®	5M	0 - 5,000	3.5CB	0 - 350	12	12" (305)
		coated	7.5M	0 - 7,500	5CB	0 - 500	15	15" (381)
		diaphragm	10M	0 - 10,000	6.8CB	0 - 680	For non-standard lengths please consult factory.	
	H	Hastelloy						

Standard Stem (Capillary) Lengths		Temperature Output		LCD Display		Communication Protocol		Options		Cable Length	
Code	Length	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
0	0" (0)	(Blank)	No second	(Blank)	No display	H	HART	M625	Full snout	(Blank)	120" (3048)
18	18" (457)		4-20mA output	D2	Programmable		configurable		temperature	L72	72" (1829)
30	30" (762)	T	Second		pressure and				compensated		
			4-20mA output		temperature				to 660°F		
					display				(350°C)		
For non-standard lengths please consult factory										CE and intrinsically safe models are supplied with 72" (1824) of cable.	
Note: Max. "snout & capillary" lengths is 36" (914)											

All dimensions are in inches (millimeters) unless otherwise specified.

Ordering Example: E1192H - 3M - 6/18 - D2 - H

- Notes:**
- Please consult factory for alternate full scale settings and non-standard options.
 - 10M units are compensated to 7.5M and extrapolated from 7.5M to 10M.
 - Mounting bracket P/N 190750 is recommended.



DYNISCO MODEL 1194

Smart Pressure Transmitter for Flanged Mounting

Description

Dynisco's IPX II Series 1194 is a high performance, microprocessor based transmitter with ambient and sensor temperature compensation, featuring a thin film sensor and proprietary fabrication techniques. The Model 1194 provides the highest accuracy pressure measurement available in a 243 style mounting. Ranging and setup of the transmitter may be accomplished with a dual LCD display, the Windows™ based Smartlink software or by using a HART® communicator.

Features

- Accuracy of $\pm 0.15\%$ of range compensated for temperature (range specific)
- Temperature compensation
- 4 to 20 mA, 2 - wire output
- 6:1 span turn - down capability
- Split design
- Optional second 4 to 20 mA signal for temperature
- Optional programmable LCD display
- HART digital communication
- FM approved models
- Intrinsically safe models

Benefits

- Improves process optimization and removes temperature effects
- Improves accuracy
- Process industry standard
- Allows use in multiple ranges
- Easy to install
- Output temperature signal to display system
- At line readout of pressure or temperature
- Process industry standard
- Approved for operation in hazardous areas
- Approved for EEx ia IIC



Specifications

NEW
EXTENDED
LIFE
COATING

Performance Characteristics

Ranges:

psi: 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000

bar: 0 - 100, 0 - 200, 0 - 350, 0 - 500, 0 - 680

Accuracy:

$\pm 0.15\%$ of full scale range: Within 20% to 100% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.25\%$ for 1500 psi range)

$\pm 0.25\%$ of full scale range: Within 0% to 20% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.50\%$ for 1500 psi range)

Hastelloy:

$\pm 0.30\%$ of full scale range: Within 20% to 100% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.50\%$ for 1500 psi range)

$\pm 0.50\%$ of full scale range: Within 0% to 20% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 1.00\%$ for 1500 psi range)

Resolution: 0.035% full scale or better

Zero span and adjustment: Zero: +84% of range; Span: 16% to 100% of range

Turn-down: 6:1

Overpressure limit: 1.5 x range

Sample rate: >10/sec

Long term stability: <0.09% of full scale per year

Temperature Characteristics

Operating temperature ranges (compensated):

Process: 77°F to 575°F (25°C to 300°C) optional to 660°F (350°C)

Electronics: 77°F to 176°F (25°C to 80°C)

Temperature effects:

Electronics: $\pm 0.15\%$ span/99°F ($\pm 0.15\%$ span/55°C)

Electrical Characteristics

Output: 2 - wire, 4 to 20 mA. Hart digital communication superimposed on the 4 to 20 mA signal is available for remote configurations.

Damping: 0 to 32 second time constant, adjustable through HART communicator or SmartLink Software.

Power supply: 12 to 42 Vdc for non intrinsically safe; 12 to 30 Vdc for intrinsically safe.

Electronics housing: IP66, NEMA 4x

Load limitation: Maximum loop resistance is determined by the voltage of the external power supply. Digital communication requires a minimum loop resistance of 250 Ohms. (See sample below)

LCD Display

Allows transducer to be configured and ranged at line before or after installation. Displays process pressure, 0 - 100% bar graph and temperature (optional).

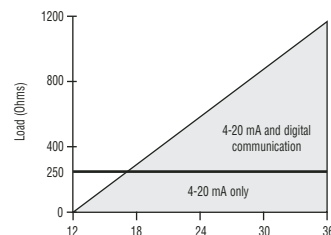
Approvals

CE approved

FM approved, Explosion - Proof, Class I, Division I, Groups B, C and D,

Class II/III, Division 2, Groups E, F and G (optional),

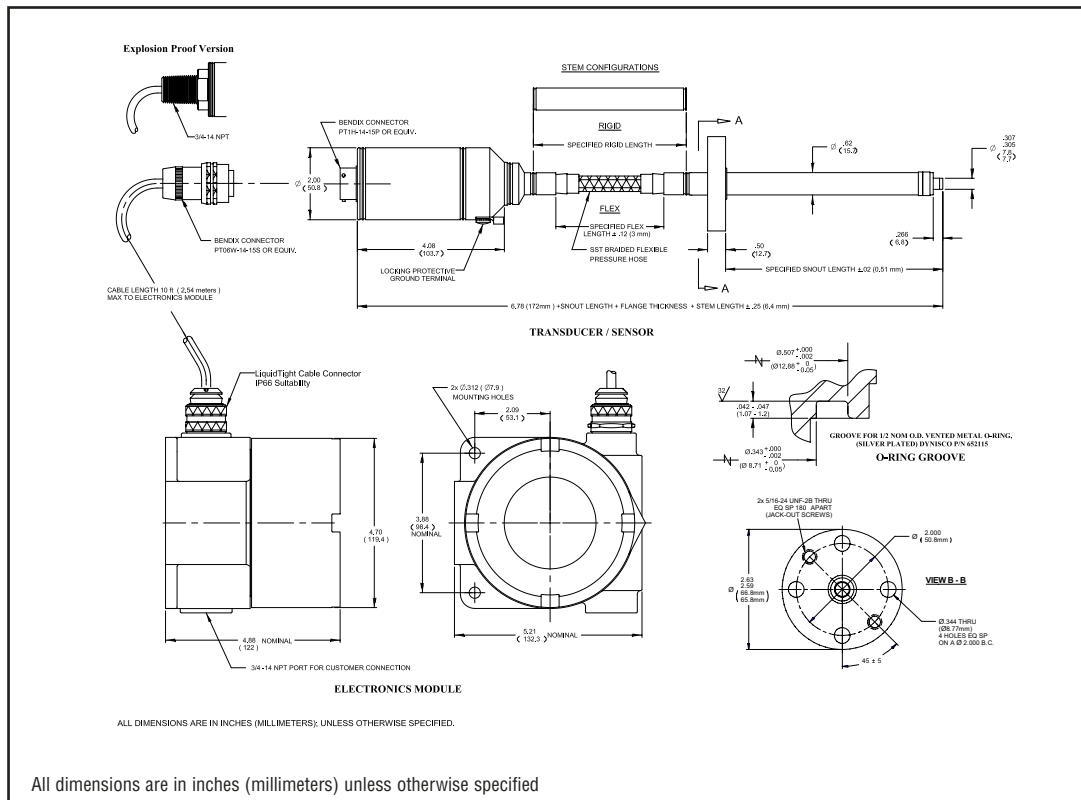
SIRA approved, Intrinsically Safe, EEx ia IIC (optional)



(Shown for standard unit without LCD display)

DYNISCO MODEL 1194

Smart Pressure Transmitter for Flanged Mounting



Ordering Guide

Model	Diaphragm Material		Pressure Range				Snout Lengths	
	Code	Description	Code	psi	Code	bar	Code	Length
N1194: No Approvals S1194: Intrinsically Safe EE x ia IIC E1194: Explosion-Proof Class 1, Division 1, Groups B, C and D Class II/III, Division 2, Groups E, F and G	(Blank)	15-5 PH SST	1.5M	0 - 1,500	1CB	0 - 100	6	6" (152)
		with	3M	0 - 3,000	2CB	0 - 200		
		Dymax®	5M	0 - 5,000	3.5CB	0 - 350		
		coated	7.5M	0 - 7,500	5CB	0 - 500		
		diaphragm	10M	0 - 10,000	6.8CB	0 - 680		
	H	Hastelloy						For non- standard lengths please consult factory.

Standard Stem (Extension) Lengths		Temperature Output		LCD Display		Communication Protocol		Options		Cable Length	
Code	Length	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
0	0" (0)	(Blank)	No second	(Blank)	No display	H	HART	M625	Full snout	(Blank)	120" (3048)
18	18" (457)		4-20mA output	D2	Programmable		configurable		temperature	L72	72" (1829)
30	30" (762)	T	Second		pressure and				compensated		
			4-20mA output		temperature				to 660°F		
					display				(350°C)		
For non-standard lengths please consult factory											
Note: Max. "snout & capillary" lengths is 36" (914)											CE and intrinsically safe models are supplied with 72" (1824) of cable.

All dimensions are in inches (millimeters) unless otherwise specified.

Ordering Example: E1194H - 3M - 6/18 - D2 - H

Notes:

- Please consult factory for alternate full scale settings and non-standard options.
- 10M units are compensated to at least 7.5M and extrapolated to 10M.
- Mounting bracket P/N 190750 is recommended.

