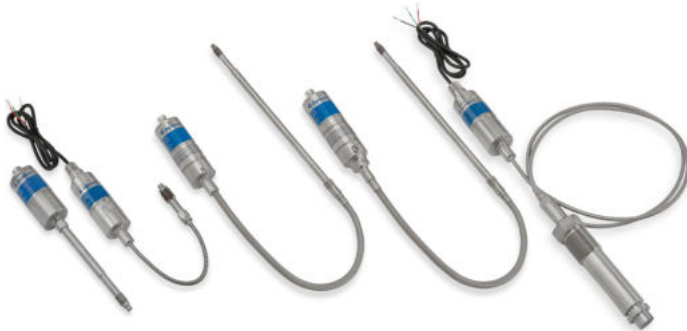


Dynisco SPX 2-Series

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.

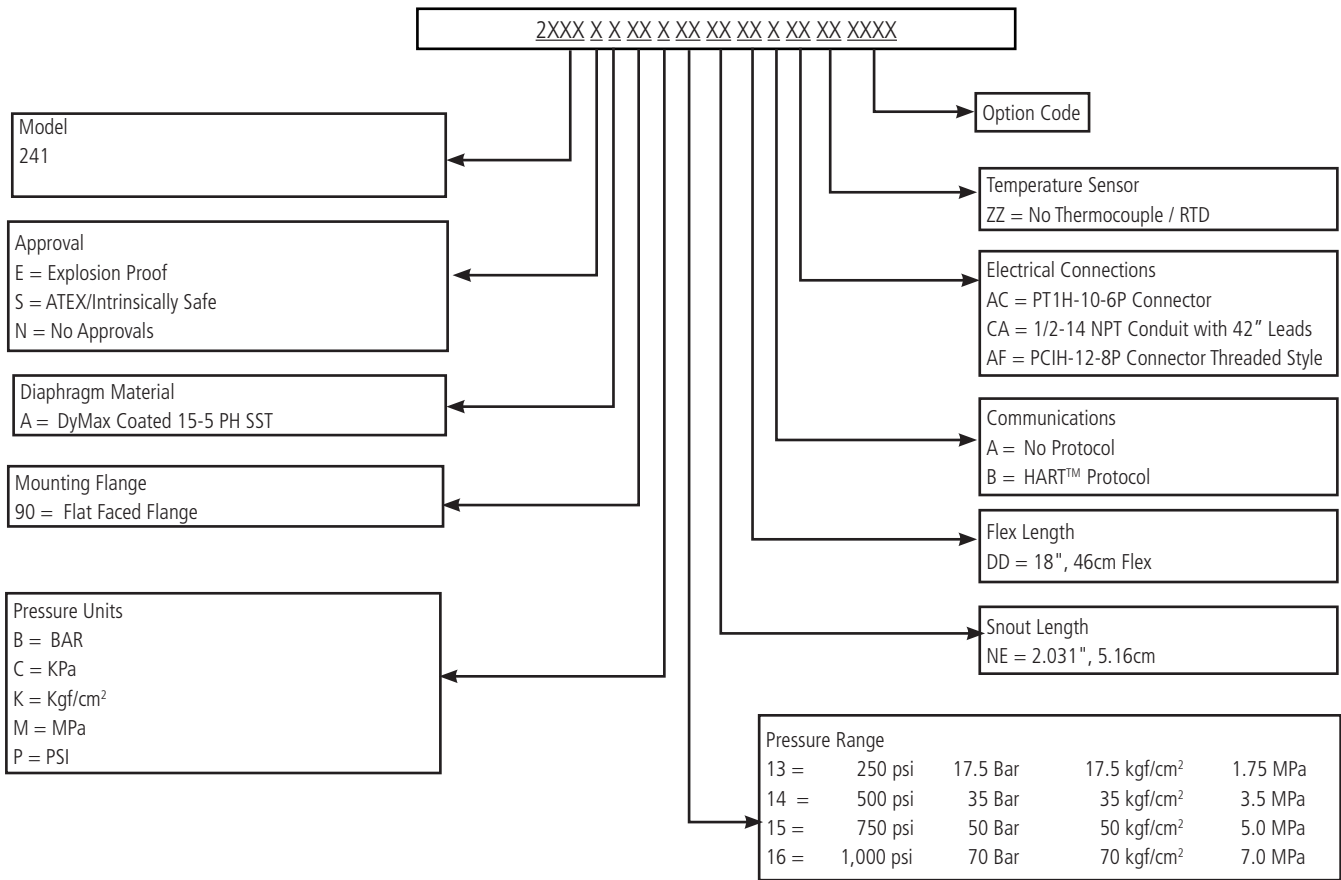
Features

- 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	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

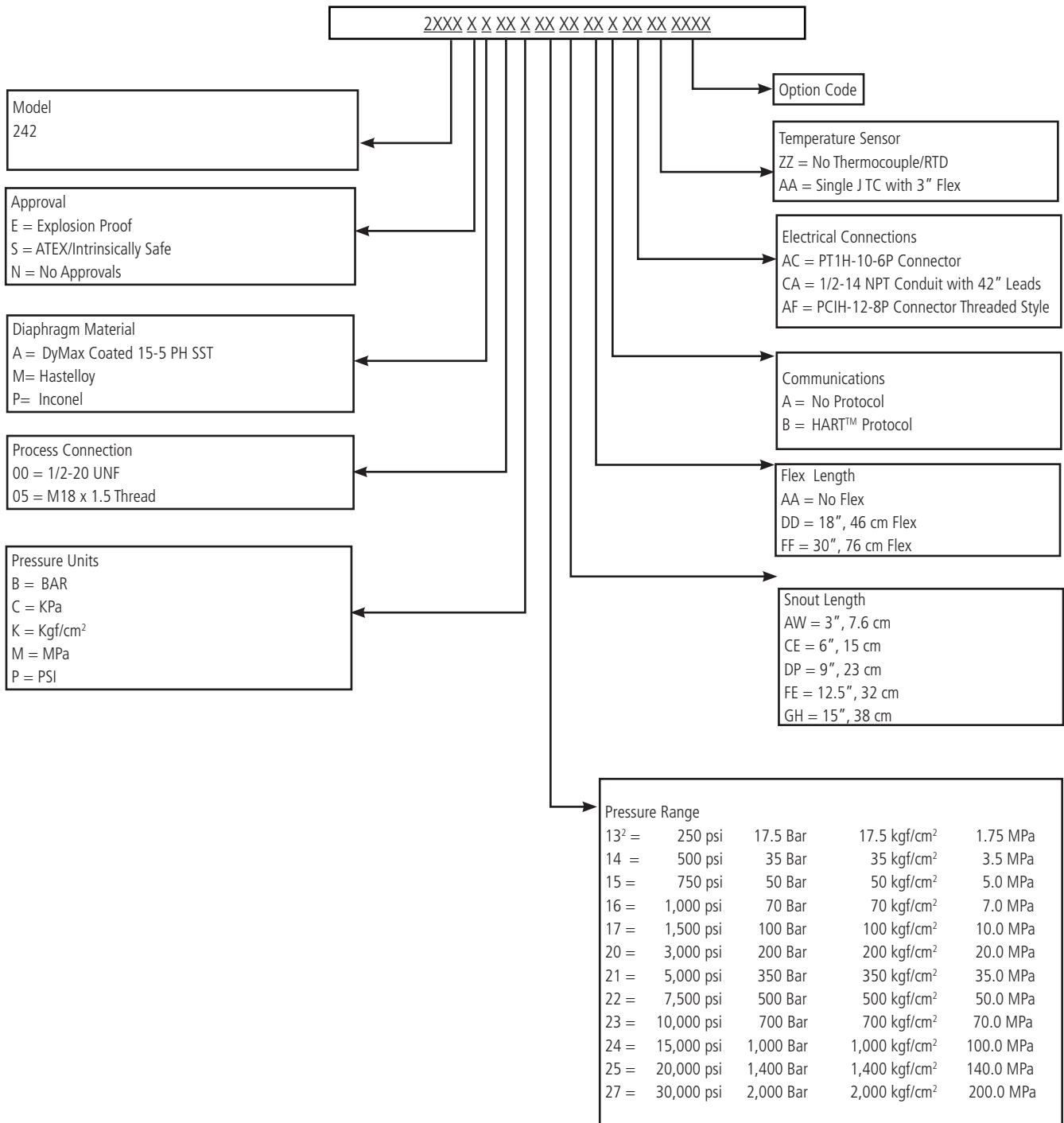
Mechanical Characteristics	
Mounting Torque	2241: 350 inch-lbf max 2242: 500 inch-lbf max 2243: 50 inch-lbf max 2244: 350 inch-lbf max 2290: 350 inch-lbf max 2291: 350 inch-lbf max 2292: 80 ft-lbf max
Standard Wetted Parts	DyMax coated 15-5 PH SST
Approvals & Certifications	
ATEX/IECEX Intrinsically 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.

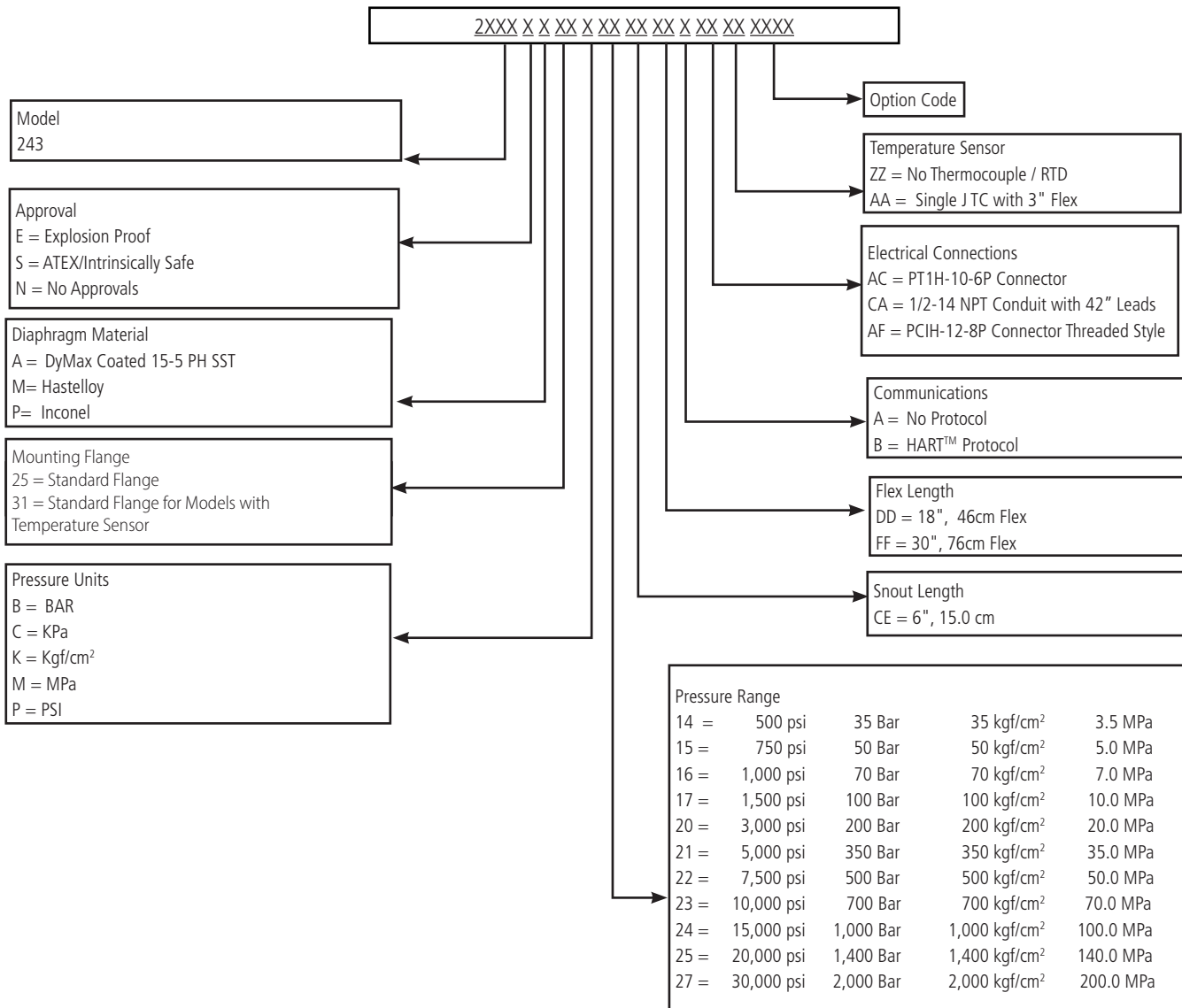
Ordering Guide for Models SPX2242¹



¹Other configurations are available. Please consult factory.

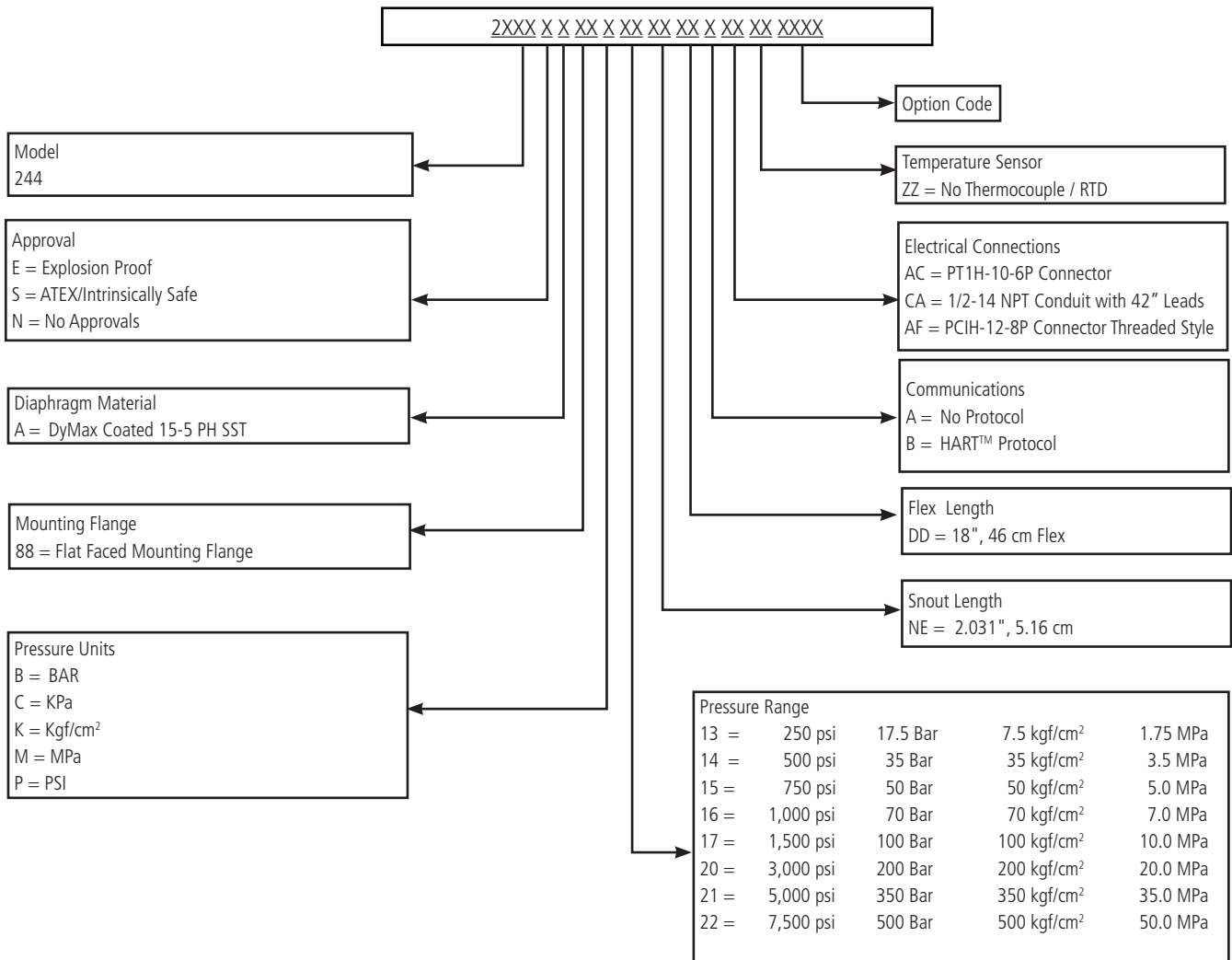
²Available in M18 x 1.5 thread only.

Ordering Guide for Models SPX2243¹



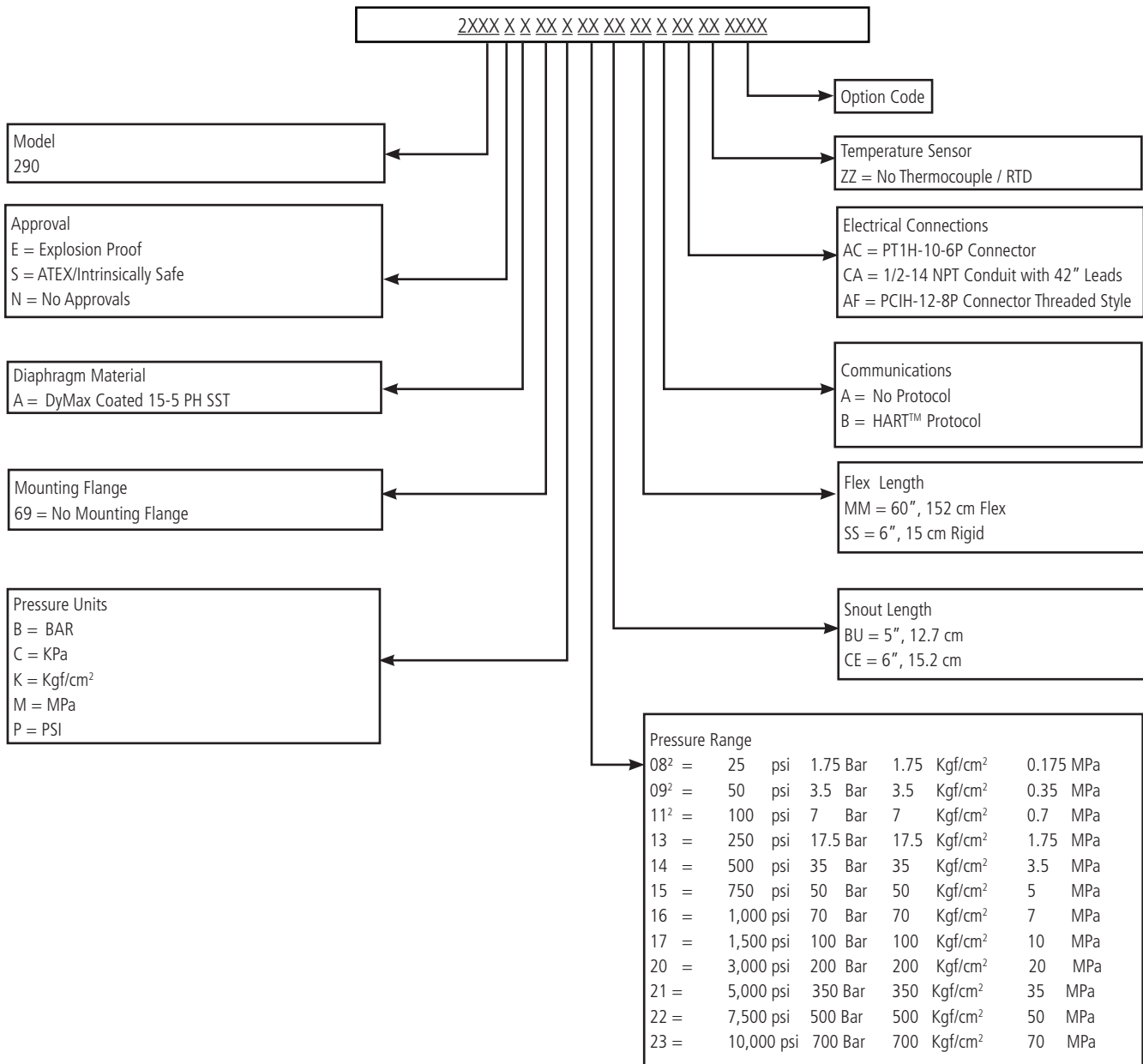
¹Other configurations are available. Please consult factory.

Ordering Guide for Models SPX2244¹



¹Other configurations are available. Please consult factory.

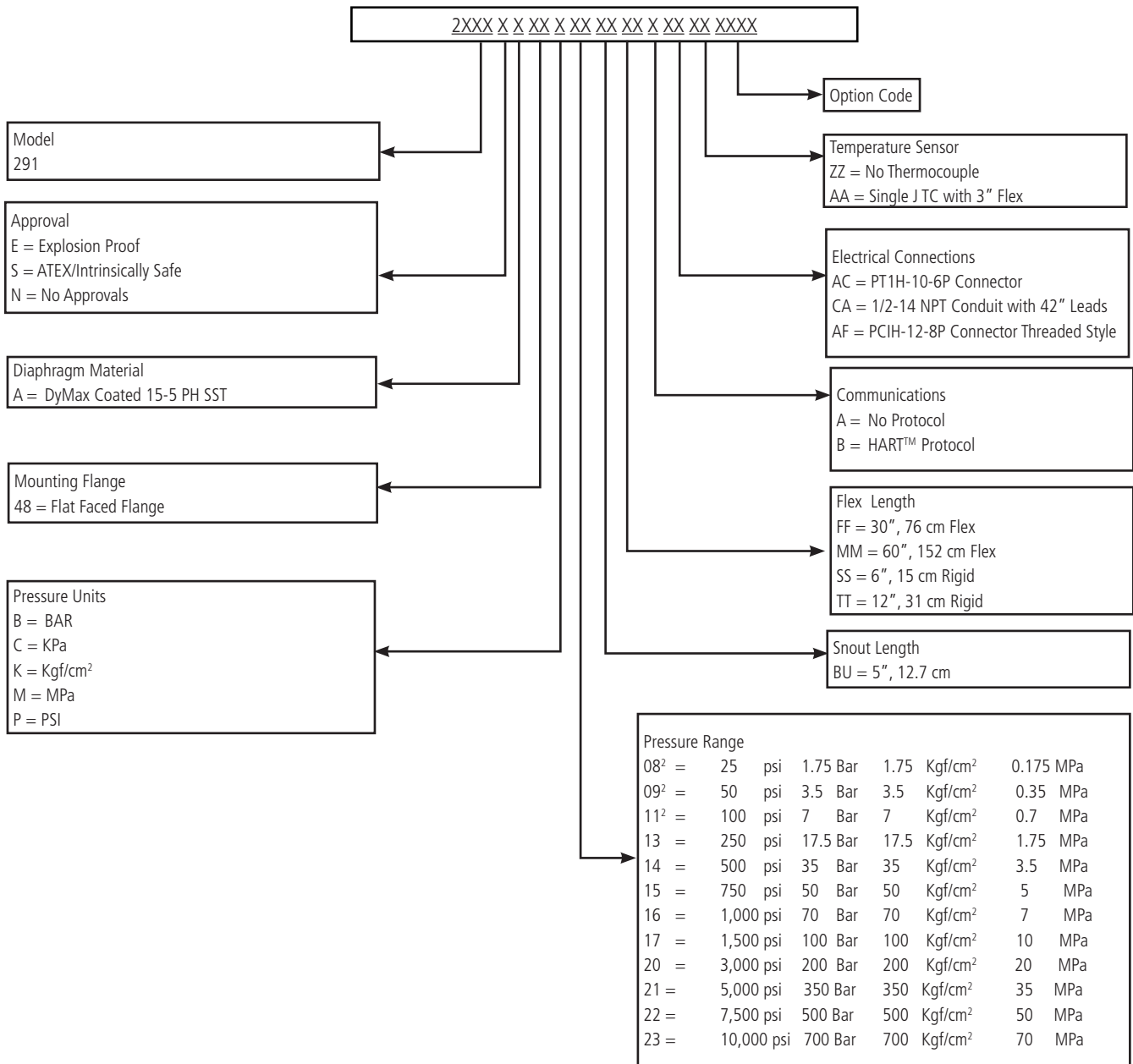
Ordering Guide for Models SPX2290¹



¹Other configurations are available. Please consult factory.

²Pressure ranges below 250 psi are supplied with rigid capillary

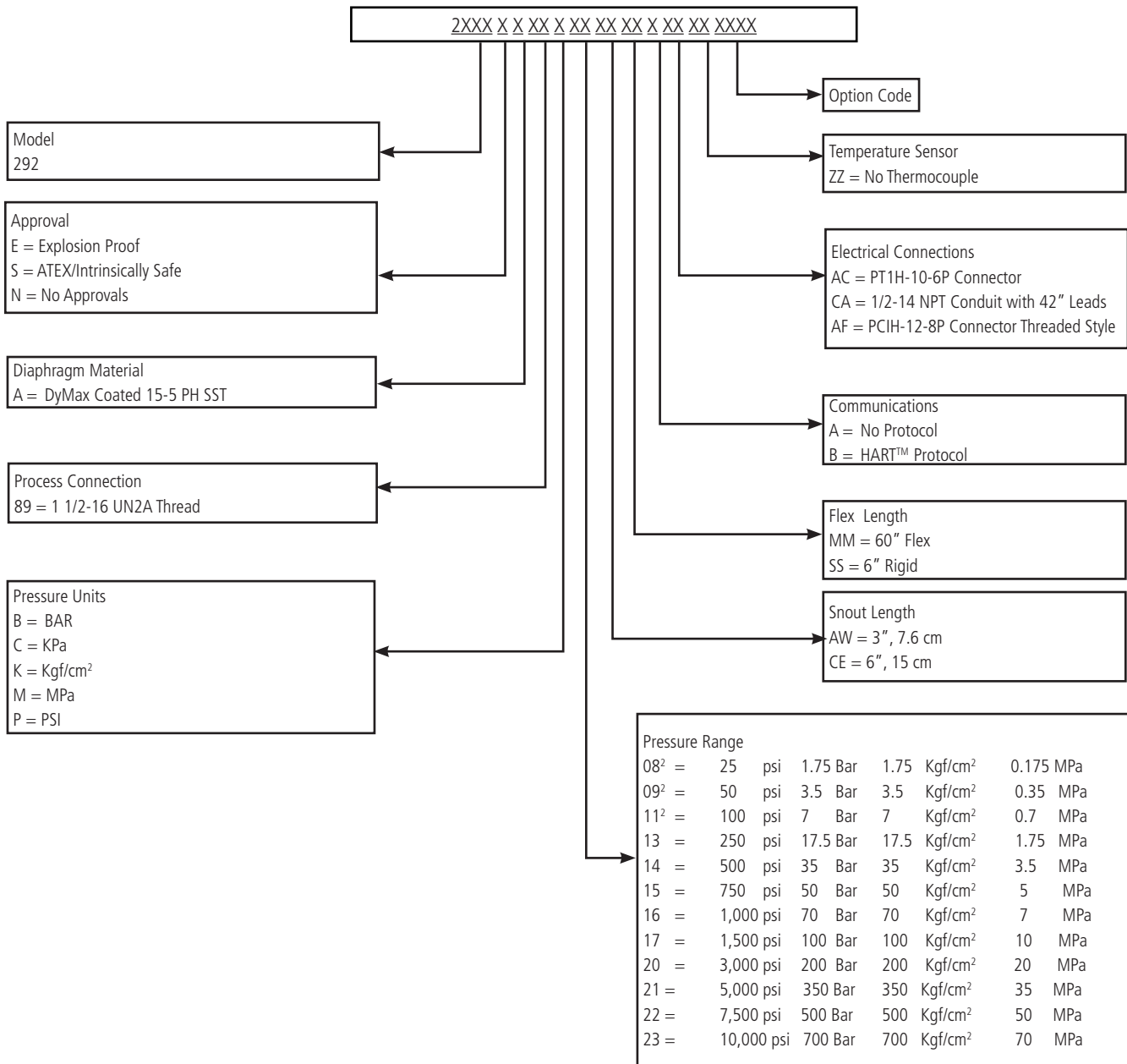
Ordering Guide for Models SPX2291¹



¹Other configurations are available. Please consult factory.

²Pressure ranges below 250 psi are supplied with rigid capillary

Ordering Guide for Models SPX2292¹



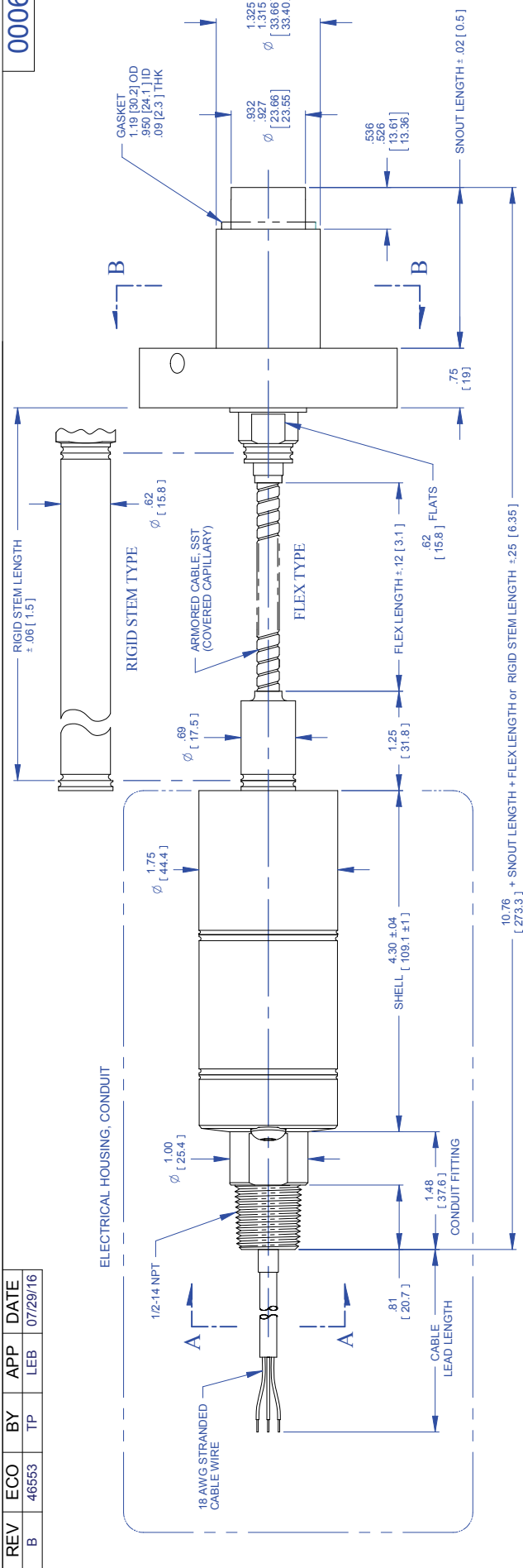
¹Other configurations are available. Please consult factory.

²Pressure ranges below 250 psi are supplied with rigid capillary

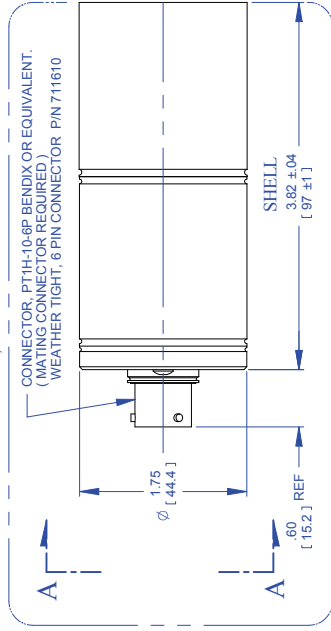
REV	ECO	BY	APP	DATE
B	46553	TP	LEB	07/29/16

000614

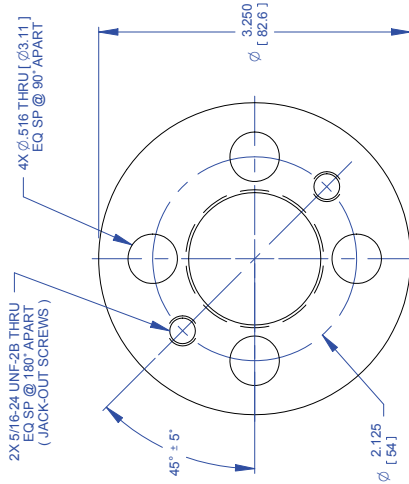
ELECTRICAL HOUSING, CONDUIT



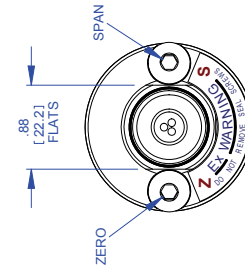
ELECTRICAL HOUSING, CONNECTOR CONFIGURATION



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



VIEW B-B
FLANGE



VIEW A-A
3 CONDUCTOR SHOWN

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

NOTES:

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

TOLERANCES UNLESS OTHERWISE SPECIFIED:

1. 2 PLACE DECIMAL 0.01
2. 3 PLACE DECIMAL 0.005
3. 4 PLACE DECIMAL 0.0005
4. DRILLS 0.050 DIA ±.005 0.050 DIA ±.008
5. ANGLES ±.05° MAX
6. EDGES R .005 OR CHAMFER MAX
7. ALL DIMENSIONS ARE IN INCHES
8. ALL DIMENSIONS ARE IN MILLIMETERS

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

DRAWN DRG DATE 11/24/11
CHECKED MUL DATE 11/03/11
APPROVED DATE 11/03/11
FINISH

MODEL NO SPX-GEN2
DO NOT SCALE DRAWING
MATERIAL

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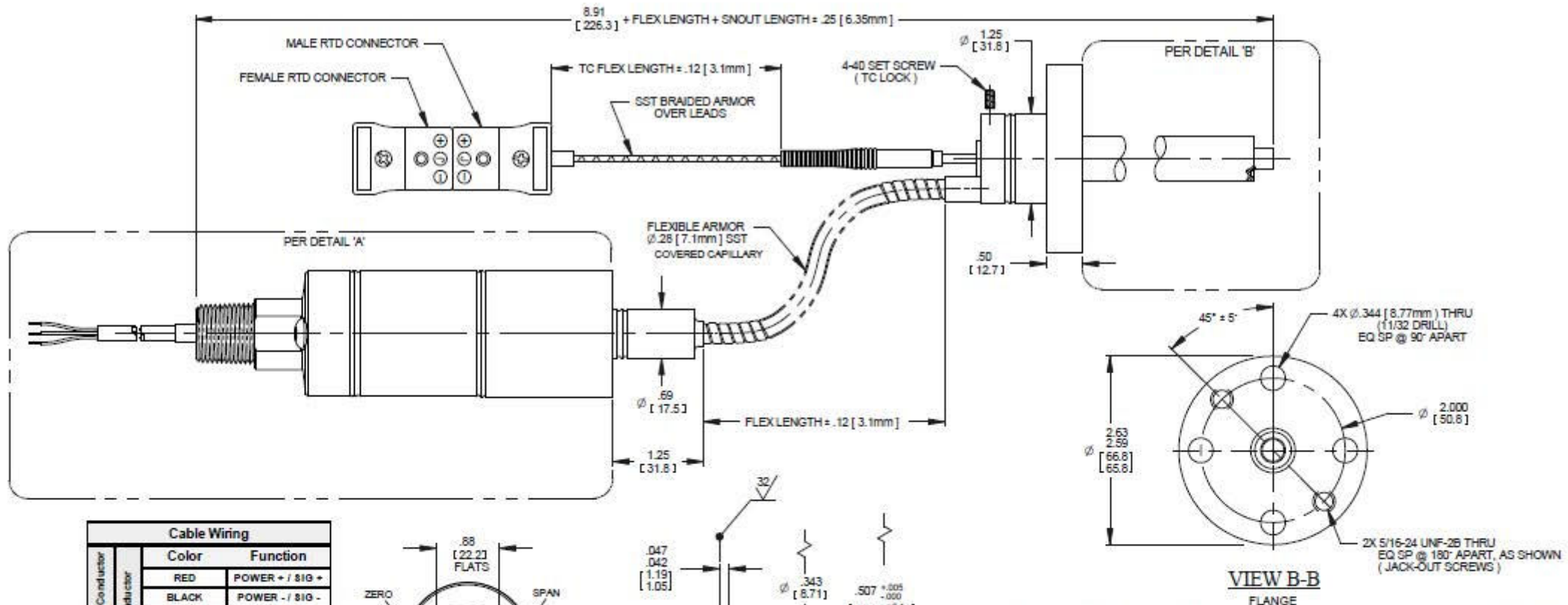
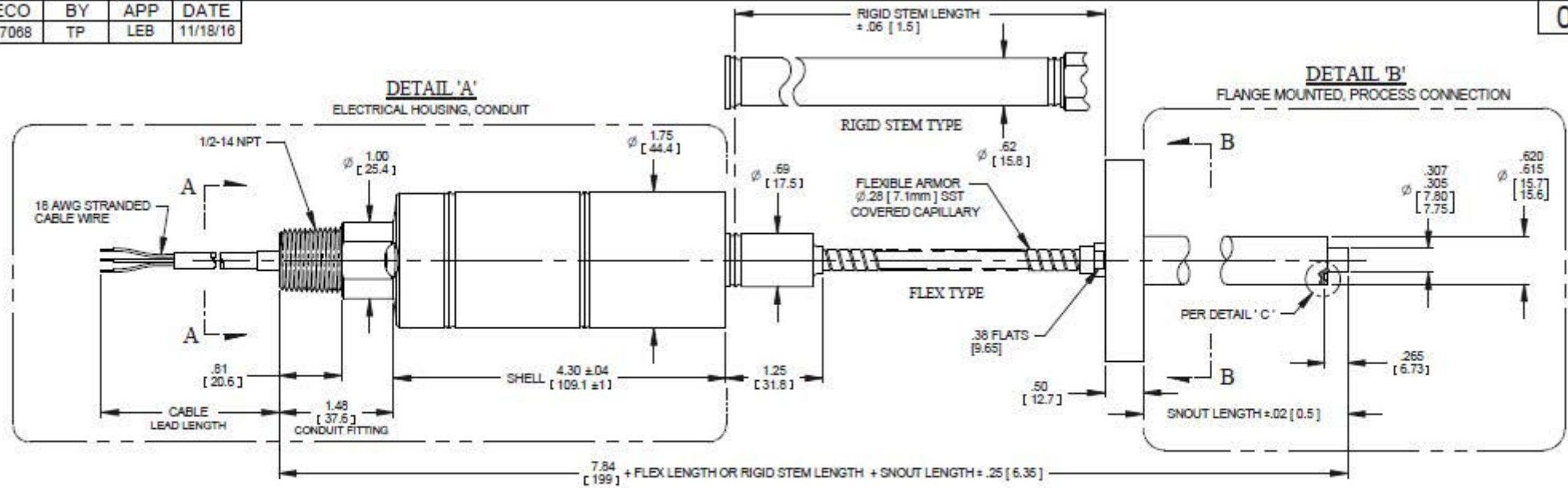
FORCE PARKWAY FRANKLIN, VA

SIZE DWG. NO. REV
C 000614 B

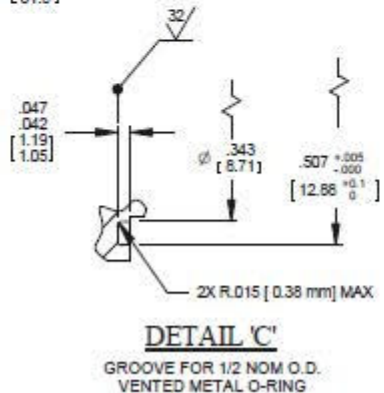
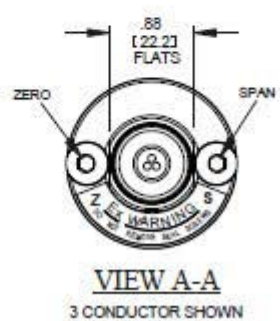
SCALE: NONE SHEET 1 OF 1

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

000618



Cable Wiring		
Conductor	Color	Function
3 - Conductor	RED	POWER + / 810 +
5 - Conductor	BLACK	POWER - / 810 -
	GREEN	GROUND
	ORANGE	Real +
	BLUE	Real -



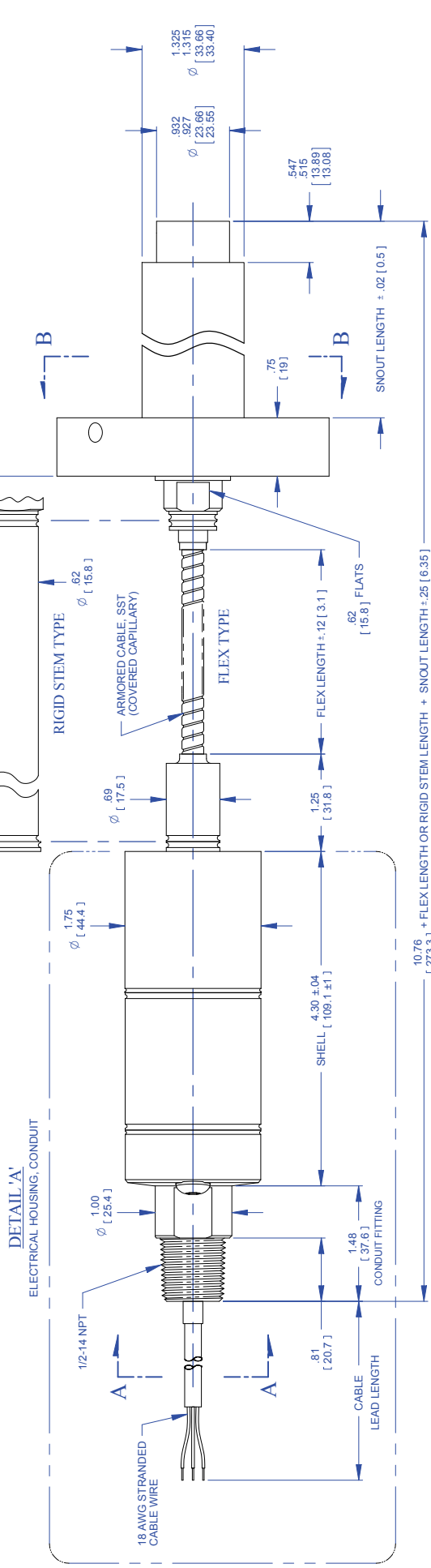
NOTES:
1. ALL DIMENSIONS ARE INCHES [MILLIMETERS]
2. EXPOSED SURFACES ARE STAINLESS STEEL.

TOLERANCES UNLESS OTHERWISE SPECIFIED: 1. 2 PLACE DECIMAL ± .01 2. 3 PLACE DECIMAL ± .005 3. FRACTIONS ± .002 4. DRILLS - 1/32 DIA ± .002 - 1/8 DIA ± .003 5. ANGLES ± .01° 6. RADIUS ± .002 MAX 7. SQUARE ± .005 ON CHAMFER MAX 8. PART TO BE FREE OF BURRS 9. ALL DIMENSIONS ARE IN INCHES		TITLE SPX-GEN2 OUTLINE MODELS 2243, 5343 FLEX, RIGID & TPT VERSIONS	RECEIPT AIR MAY BE OTHERWISE PROVIDED BY CONTRACT. THESE DIMENSIONS AND SPECIFICATIONS ARE THE PROPERTY OF DYNISCO, AND SHALL NOT BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION.
MODEL NO. SPX-GEN2	DRAWN DRG DATE 11/29/10	FORWARDING INFORMATION	
DO NOT SCALE DRAWING	CHECKED DATE	SIZE C	DWG. NO. 000618
MATERIAL	APPROVED MJL DATE 01/31/11	REV C	SCALE: NONE SHEET 1 of 1
	FINISH		

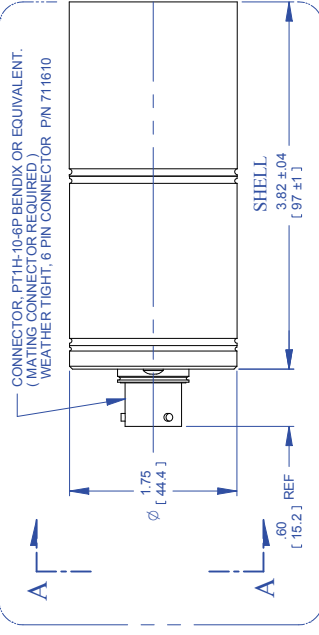


REV	ECO	BY	APP	DATE
B	46563	TP	LEB	07/29/16

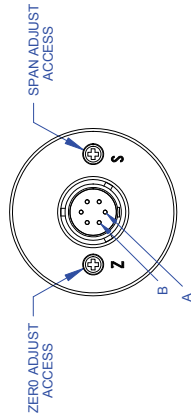
000620



ELECTRICAL HOUSING, CONNECTOR CONFIGURATION

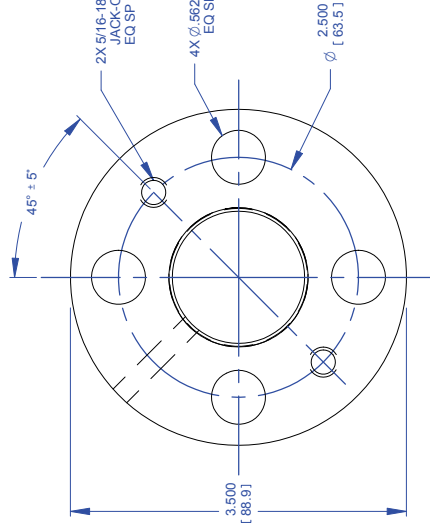


ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS



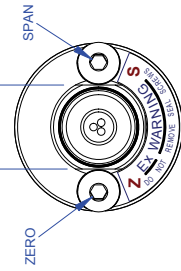
VIEW A-A

CONNECTOR WIRING	FUNCTION
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 -
		Rcal +

NOTES:

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

TOLERANCES UNLESS OTHERWISE SPECIFIED:

- 1.2 PLACE DECIMAL 1.01
- 3 PLACE DECIMAL 1.005
- Ø .0005
- Ø .0015
- Ø .0025
- Ø .005
- Ø .01
- Ø .015
- Ø .02
- Ø .03
- Ø .04
- Ø .05
- Ø .06
- Ø .07
- Ø .08
- Ø .09
- Ø .10
- Ø .12
- Ø .15
- Ø .20
- Ø .25
- Ø .30
- Ø .375
- Ø .50
- Ø .625
- Ø .75
- Ø .875
- Ø 1.00
- Ø 1.125
- Ø 1.25
- Ø 1.375
- Ø 1.50
- Ø 1.625
- Ø 1.75
- Ø 1.875
- Ø 2.00
- Ø 2.125
- Ø 2.25
- Ø 2.375
- Ø 2.50
- Ø 2.625
- Ø 2.75
- Ø 2.875
- Ø 3.00
- Ø 3.125
- Ø 3.25
- Ø 3.375
- Ø 3.50
- Ø 3.625
- Ø 3.75
- Ø 3.875
- Ø 4.00
- Ø 4.125
- Ø 4.25
- Ø 4.375
- Ø 4.50
- Ø 4.625
- Ø 4.75
- Ø 4.875
- Ø 5.00
- Ø 5.125
- Ø 5.25
- Ø 5.375
- Ø 5.50
- Ø 5.625
- Ø 5.75
- Ø 5.875
- Ø 6.00
- Ø 6.125
- Ø 6.25
- Ø 6.375
- Ø 6.50
- Ø 6.625
- Ø 6.75
- Ø 6.875
- Ø 7.00
- Ø 7.125
- Ø 7.25
- Ø 7.375
- Ø 7.50
- Ø 7.625
- Ø 7.75
- Ø 7.875
- Ø 8.00
- Ø 8.125
- Ø 8.25
- Ø 8.375
- Ø 8.50
- Ø 8.625
- Ø 8.75
- Ø 8.875
- Ø 9.00
- Ø 9.125
- Ø 9.25
- Ø 9.375
- Ø 9.50
- Ø 9.625
- Ø 9.75
- Ø 9.875
- Ø 10.00

TITLE
SPX-GEN2 OUTLINE
MODELS 2244, 5344
FLEX & RIGID VERSIONS

DRAWN DRG DATE 11/29/10

CHECKED MUL DATE 01/13/11

APPROVED DATE 01/13/11

FINISH

MODEL NO. SPX-GEN2

DO NOT SCALE DRAWING

MATERIAL

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FORCE PARKWAY, TINKLETON, VA

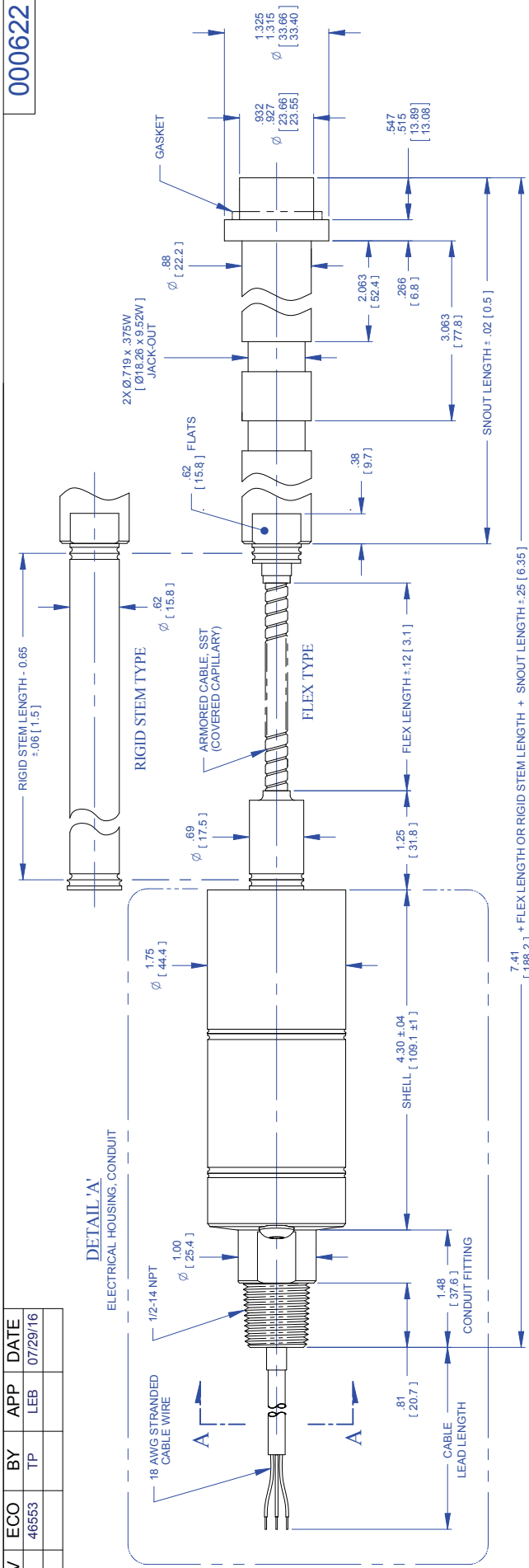
SIZE DWG. NO. REV
C 000620 B

SCALE: NONE SHEET 1 OF 1

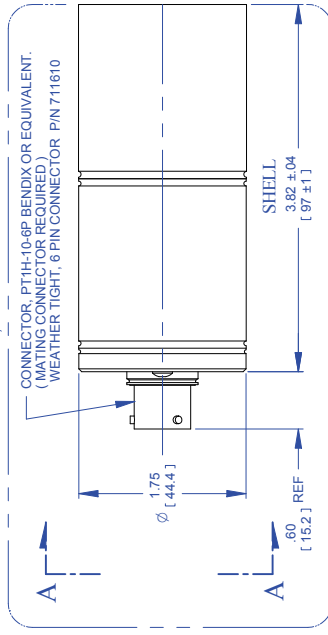
REV	ECO	BY	APP	DATE
B	46553	TP	LEB	07/29/16

000622

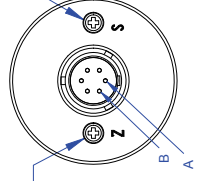
DETAIL A
ELECTRICAL HOUSING, CONDUIT



ELECTRICAL HOUSING, CONNECTOR CONFIGURATION



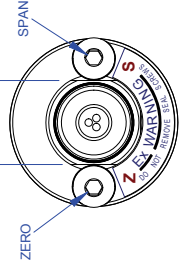
ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS



VIEW A-A

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

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



VIEW A-A

3. CONDUCTOR SHOWN

TOLERANCES UNLESS OTHERWISE SPECIFIED:

1. 2 PLACE DECIMAL ±.01
2. 3 PLACE DECIMAL ±.005
3. DRILLS ±0.030
4. DRILLS ±0.030
5. ANGLES ±0.5° MAX
6. EDGES R .005 OR CHAMFER MAX
7. FINISHES AS SHOWN
8. ALL DIMENSIONS ARE IN INCHES

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

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NOTES:

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

Dynisco
FORCE PARKWAY, FRANKLIN, MA

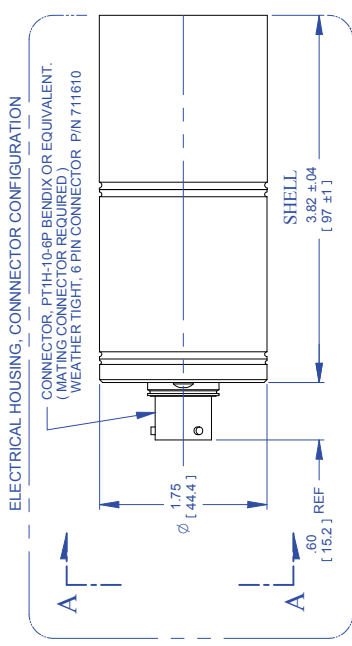
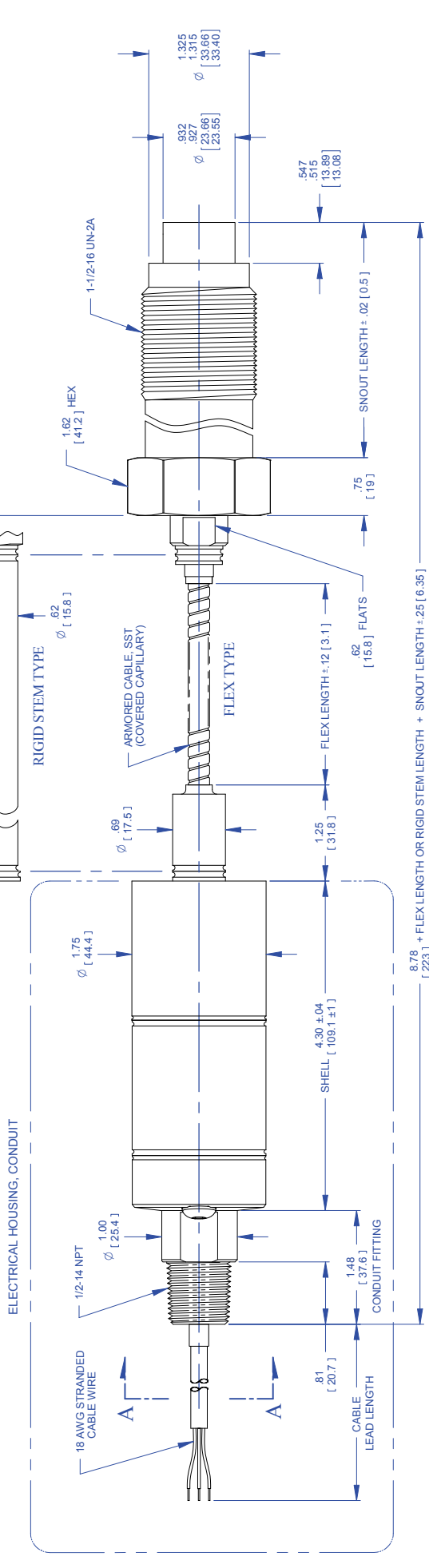
MODEL NO.	SPX-GEN2
DRAWN	DATE 12/08/10
CHECKED	DATE 01/31/11
APPROVED	MUL
FINISH	

SIZE	C
DWG. NO.	000622
REV	B

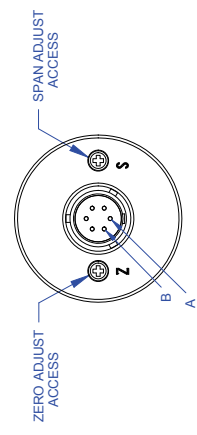
SCALE: NONE SHEET 1 OF 1

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

000625

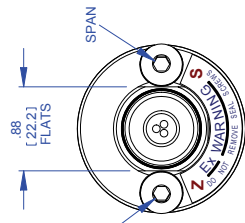


ZERO AND SPAN ADJUSTS ARE PROTECTED BY SEAL SCREWS



VIEW A-A

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 -

EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS SHALL BE THE PROPERTY OF DYNISCO. NO PARTS OR INFORMATION CONTAINED HEREIN SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION.

Dynisco
FORCE PARWAY, FRANKLIN, VA

TOLERANCES UNLESS OTHERWISE SPECIFIED:
 1. 2 PLACE DECIMAL 0.01
 2. 3 PLACE DECIMAL 0.005
 3. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY
 4. ANGLES 90° ± 0.05° MAX
 5. EDGES R .005 OR CHAMFER MAX .015
 6. DIMENSIONS ARE IN INCHES
 7. ALL DIMENSIONS ARE TO BE TAKEN UNLESS OTHERWISE SPECIFIED

SPX-GEN2 OUTLINE
MODELS 2292, 5392
FLEX & RIGID VERSIONS

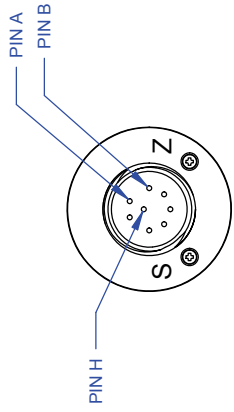
MODEL NO. SPX-GEN2
 DRAWN DRG DATE 12/07/10
 CHECKED DATE 01/13/11
 APPROVED MJL DATE 01/13/11
 FINISH

SCALE: NONE SHEET 1 OF 1

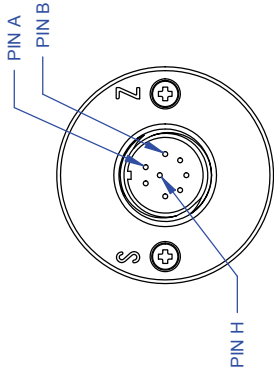
NOTES:
 1. ALL DIMENSIONS ARE INCHES [MILLIMETERS]
 2. EXPOSED SURFACES ARE STAINLESS STEEL.

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

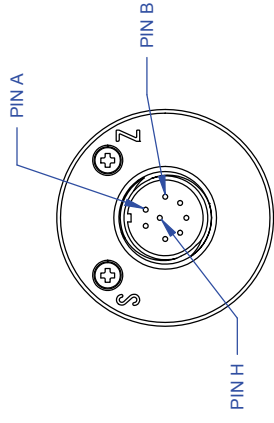
000652



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

TITLE		DATE	
GUARDIAN SERIES CONNECTORS		TP	7/27/16
DRAWN	CHECKED	DATE	DATE
LEB	LEB	7/27/16	7/27/16
APPROVED	APPROVED	DATE	DATE
FINISH	FINISH	63	✓

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DYNISCO FORGE PARKWAY, FRANKLIN, MA 01917 1/31/2016/01/31/2016		DWG. NO.	REV
SIZE	B	000652	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



www.dynisco.com



Dynisco

38 Forge Parkway
Franklin, MA 02038
USA

Hotline 1-800-Dynisco
www.dynisco.com
Phone +1 508 541 9400
Fax +1 508 541 6206
Email infoinst@dynisco.com

Dynisco Europe, GmbH

Pfaffemstr. 21 Phone +49 7131 297 0
74078 Hellbronn Fax +49 7131 297 166
Germany Email dyniscoeurope@dynisco.com

Dynisco Shanghai

Building 7A, No. 568 Phone +86 21 34074072-819
Longpan Rd Malu Toll Free +86 400 728 9117
Jiading, 201801 China Fax +86 21 34074025