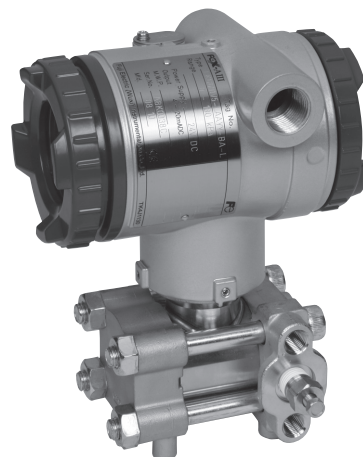


PRESSURE TRANSMITTER(HYDROGEN PERMEATION RESISTANT TYPE)

DATA SHEET

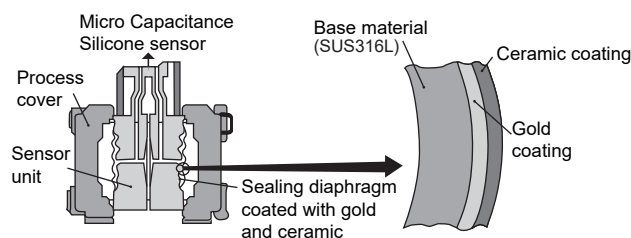
FKG...5/FDG...5

The FCX -AIII pressure transmitter accurately measures pressure and converts it into an output signal of 4~20mA DC. The transmitter utilizes a unique micromachined capacitance silicon sensor with state-of-the-art microprocessor technology to provide exceptional performance and functionality. It's small volume, light weight, good environment adaptability, and applicable to all fields. If using the hand held communicator(sold separately), it can be set and display via remote operation, without affecting the DC 4~20mA output signal of transmitter. FCX-AIII series transmitters with safety function have obtained the certificate of SIL certification by TÜV.



Features

1. The world's first double coating structure (patent).
Permeation of hydrogen into the fill fluid can be suppressed by the world's first gold and ceramic coating (double coating) at the surface of seal diaphragm.



2. High accuracy
Pressure transmitter can be carried out with high accuracy measurement in the range of 50 ~ 10000kPa. There's no need to linear calibration when carrying out zero elevation or suppression.
3. Excellent environmental adaptability
The advanced floating cell protects sensor from temperature and overpressure effect, and controls the total measurement error of the filled to the minimum.
4. Excellent operability and easy to use
It has an excellent operability and easy to use in any application.
 - All range meet the requirements of explosion-proof.
 - 5-digit digital indicator
 - Stainless steel AMP case
 - Built-in RFI filter and lightning arrester
 - Built-in local configurator with 3 push buttons
5. The transmitter can communicate using FUJI, HART, communication protocol, and also can use FOUNDATION FIELDBUS or PROFIBUS protocol after changing the electronic circuit.

Specifications

Functional specifications

- Measured fluid: Liquid, gas, or vapor

• Range, operating pressure, and overrange limit:

Model	Operating pressure [MPa]	Span limit [kPa]		Range limit [kPa]		Overrange limit [MPa]
		Min.	Max.	Lower	Upper	
FKG □□ 07 FDG □□ 07	-0.1 ~ 0.5	50	500	According to the lower range limit of fill fluid (see the next page)	500	1.5
FKG □□ 08 FDG □□ 08	-0.1 ~ 3	300	3000		3000	9
FKG □□ 09 FDG □□ 09	-0.1 ~ 10	1000	10000		10000	15

• Process temperature, Lower range limit: Refer to Figure 1

Fill fluid	13th digit code	Process Temperature	Lower range limit
Silicone oil	Y,G,N	-20 ~ +100°C	2.7kPa abs
Fluorinated oil	W,A	-20 ~ +80°C	Atmospheric pressure

• Remote function: Refer to table 1

Note: HHC's version must be higher than 7.0 (or FXW□□□□1-□4).

• Output signal: (1)FKG: DC4~20mA+HART protocol
(2)FDG: FOUNDATION Fieldbus protocol or PROFIBUS-PA

• Allowable load resistance: 0 ~ 600Ω (at DC 24V)
(Refer to figure 2) For communication with HHC, min. of 250Ω resistor is required.

Power supply:	General	DC10.5 ~ 45V
(Refer to figure 2)	Intrinsic safety	DC10.5 ~ 26V
	With arrester	DC10.5 ~ 32V

FKG

- Condition of communication line: Length: up to 2km
 (0.75 ~ 1.25mm² Using twisted pair cable when instrument control cable is more than 1km.)
 Load resistance: 250 ~ 600Ω
 (DC24V, including resistance of cable)
 Load capacitance: 0.22μF or less
 Load inductance: 3.3mH or less
 spacing with power line: 15cm or more
 (Please avoid parallel wiring.)
 Note: Line condition of intrinsic safety and explosion-proof is different, please refer to the instruction manual.
- Saturation current: Upper limit 20.0 ~ 22.5mA(variable)
 Lower limit 3.2 ~ 4.0mA(variable)
 (Settable in increments of 0.1mA with HHC or local configurator unit with LCD display.)
- Damping: The time constant is adjustable from 0.06 to 32 seconds.
- Adjustment function: Zero and span are adjustable by the external adjustment screw, or by local configurator with 3 push buttons, or by HHC.
- Zero elevation/suppression: Zero can be elevated or suppressed within the range of -0.1 MPa to upper range limit.
- Normal/reverse action: Selectable from HHC or LCD unit with local adjustment function.
- Burnout direction: Output hold
 Output 20.0 ~ 22.5mA (variable)
 Output 3.2 ~ 4.0mA (variable)
 (Settable in increments of 0.1mA with HHC or local configurator unit with LCD display.)
- Explosion proof: Refer to table 4
- Ambient temperature: -40 ~ +85°C
 (With arrester: -40 ~ +60°C
 Fluorinated oil fill: -10 ~ +60°C
 Note: The optimum operating temperature of digital indicator is -30 ~ +80°C, response is slow below -30°C.)
- Storage temperature: -40 ~ +90°C
- Weather resistance: DIN 40040 GPC
- EMC applicable standard: EN61326-1: 2006 C €

Performance specifications

- Accuracy rating: ± 0.15 %
 Percentage of span (including linearity, hysteresis, and repeatability at 23°C)
- Ambient temperature effect: Changed per 28°C in the range of -40°C ~ +85°C.
 Zero shift: $\pm \left(0.1 + 0.075 \frac{URL}{x} \right) \% / 28^\circ C$
 Total shift: $\pm \left(0.125 + 0.075 \frac{URL}{x} \right) \% / 28^\circ C$
 In the formula: x : SPAN
 URL : Upper range limit
- Overrange effect: Zero shift ±0.2% of URL for any overrange to maximum limit .
- Mounting position effect: 0.1kPa/10°
 In case of 13th digit code"W", "D", "A" (Treatment, Fill fluid), the influence value is 2 times of above.
- Supply voltage effect: ± 0.005% /1V(DC 16.1 ~ 45V)

- Insulation strength: 500VAC, 50/60Hz, 1 min, between circuit and earth.
- Insulation resistance: More than 100MΩ at 500V DC, between circuit and earth.
- Update rate: 60ms
- Response time: Time constant: 0.08s (at 23°C)
 Dead time: approx. 0.12s

Structure and material

- Materials of detecting unit:

Material code	Process cover	Detecting unit body	
		Seal diaphragm	Other wetted parts
C	SCS14A	SUS316L(*1)	SUS316

(*1) The wetted surface of diaphragm is coated with gold and ceramic.

SCS14A (JIS G 5121)··CF8M (ASTM A351/A351M) Equivalent

- Amp case materials: Aluminium die casting + Polyester coating (color: silvery) or Stainless steel(SCS14A)
- Amp case cover materials: Aluminium die casting + Polyester coating (color: blue) or Stainless steel(SCS14A)
- Structure of case: Immersion protected type JIS C 0920 (Equivalent to IEC IP67, NEMA 6/6P)
- Outline dimension: According to the outline drawing.
- Weight: approx. 3.4kg (body)
- Conduit connection: G¹/₂, 1/2-14NPT, M20× 1.5, Pg13.5 (Refer to the model code table for details.)
- External terminal: M3.5 Screw
- Preprocess connection: Rc¹/₄ or 1/4-18NPT (Refer to the model code table for details.)
- Mounting method: Mounting on 50A(2B) pipe with U-bolt, or mounting on the wall (according to model and specification)
- Direction of AMP unit: Amp unit can be turned clockwise or counterclockwise by 90° or 180°, relative to the direction of detecting unit.

Optional specifications

- Analog indicator: Built in amplifier unit
 Class 2.5, moving-coil, movement 90°, 0 ~ 100% evenly divided scale or actual scale
 (The actual scale can be selected in the four evenly divided scales (range: 30, 35, 40, 50) or 0~100% evenly divided scale with reading coefficient.)
- Digital indicator: Built in amplifier unit, 5 digit LCD and unit display, 0 ~ 100% scale display or actual scale display. Optimum operating temperature range: -30 ~ +80°C,
- Digital indicator: Displaying or setting the items of table 1 (with 3 push buttons) via 3 push buttons of digital indicator.
- Arrester: Built in amplifier unit
 Lightning performance: 4kV(1.2× 50μs)
- Degreasing treatment for oxygen: Filling fluorinated oil, degreasing and cleaning for wetted parts
- NACE specifications: H₂S treatment countermeasure based on NACE specification.
- Anti-corrosive coating of detecting unit: Epoxy and polyurethane double coating
- Stainless steel tag plate: The plate can be engraved up to 14 characters (letters and numbers)

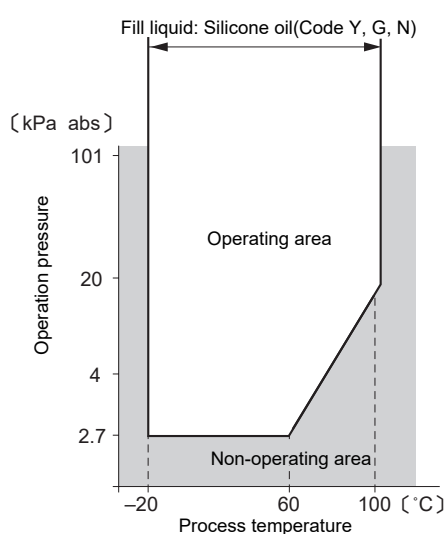
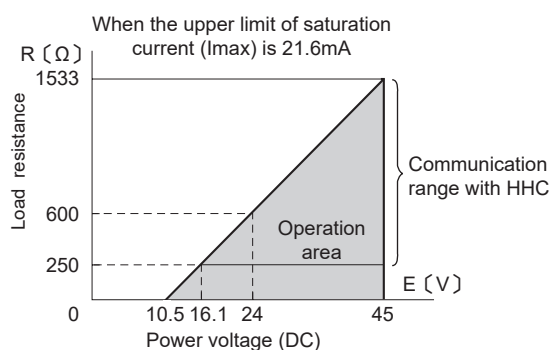


Figure 1 Relation between process temperature and operating pressure



(Note) The load resistance varies according to the upper limit of saturation current.

$$R \text{ [}\Omega\text{]} = \frac{E \text{ [V]} - 10.5}{(I_{\max} \text{ [mA]} + 0.9) \times 10^{-3}}$$

Figure 2 Operation area of power voltage and load resistance

The product conforms to the requirements of European EMC directive "Electromagnetic Compatibility Directive 2004/108/EC". The detail content is recorded in the technical construction file number TN5A0704. The applicable standards are as follows:

Emission list:

EN 61326-1 : 2006 Class A (Industrial location)

Frequency range	Limits	Reference standard
30 ~ 230MHz	40dB(μV/m) quasi peak, measured at 10m distance	EN55011:1998 +A1:1999
230 ~ 1000MHz	47dB(μV/m) quasi peak, measured at 10m distance	+A2:2002 (Group1 Class A)

Immunity requirements:

EN 61326-1 : 2006 Table2 (Industrial location)

Phenomenon	Test value	Basic standard	P.C.
Electrostatic discharge	2/4kV (Contact) 2/4/8kV (Air)	IEC 61000-4-2:1995 +A1:1998+A2:2001	B
Electromagnetic field	10V/m(80 ~ 1000MHz) 3V/m(1.4 ~ 2.0GHz) 1V/m(2.0 ~ 2.7GHz) 80%AM(1kHz)	IEC 61000-4-3:2002 +A1:2002	A
Rated power frequency magnetic field	30 A/m 50/60 Hz	IEC 61000-4-8:1993 +A1:2001	A
Burst	2kV	IEC 61000-4-4:2004	B
Surge	1.2/50μs(Voltage) 8.0/20μs(Current) 0.5/1kV line to line 0.5/1/2kV line to ground	IEC 61000-4-5:1995 +A1:2001	B
Conducted RF	0.15 ~ 80MHz 3V 80%AM(1kHz)	IEC 61000-4-6:1996 +A1:2001	A

Definition of performance criteria:

A: During testing, normal performance within the specification limits.

B: During testing, temporary degradation, or less of function or performance which is self-recovering.

Table1 Adjustment function

No.	Items	HHC (Model:FXW) ^{Note1)}		Local configurator (With 3 push buttons)	
		Display	Set	Dispaly	Set
1	Tag No.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Serial No. & Software Version	<input type="checkbox"/>	—	<input type="checkbox"/>	—
4	Engineering unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Range Limit	<input type="checkbox"/>	—	<input type="checkbox"/>	—
6	Measuring range	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Damping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Output mode	<input type="checkbox"/>	—	<input type="checkbox"/>	—
9	Burnout direction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	Zero/span calibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Calibration of output circuit	—	<input type="checkbox"/>	—	<input type="checkbox"/>
C	Measured data	<input type="checkbox"/>	—	<input type="checkbox"/>	—
D	Self-diagnosis	<input type="checkbox"/>	—	<input type="checkbox"/>	—
E	Printer function	<input type="checkbox"/>	—	—	—
F	Lock of adj. function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G	Indication of digital indicator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H	Linzearize	<input type="checkbox"/>	<input type="checkbox"/>	—	—
I	Rerange	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J	Saturation current Write	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K	protect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L	History				
	-Calibration history	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	-Temperature history	<input type="checkbox"/>	—	<input type="checkbox"/>	—

Note1) The version of HHC must be higher than 7.0 when it supports FCX-All series transmitter(or FXW□□□□1-□4).

It can upgrade the version by changing ROM, please consult our company's windows or agency shop nearby for details.

Scope of delivery

Instrument body, pipe mounting bracket
(according to type selection)

Related products

- Oval flange (Model: LFP, refer to the data sheet for the details.
Process connection: 1/2-14NPT or Rc1/2.
Carbon steel or 316 stainless steel.
- Hand held communicator (Model: FXW):
Hand held, built-in battery, setting, display
For the details, please refer to data sheet (CSDS8-47).

Ordering information

1. Model code
2. Span
3. Please select the direction of output (Notuse/OVER/UNDER) when the transmitter is fault (Burnout). If unspecified, it is Notuse.
4. If the scale of indicator is selected to actual scale (9th code: D、H、P、S), please select the items of display (digit, scale, unit , etc).
5. Please select the tag plate according to need.(up to 14 digit, consist of letters and numbers).

FKG

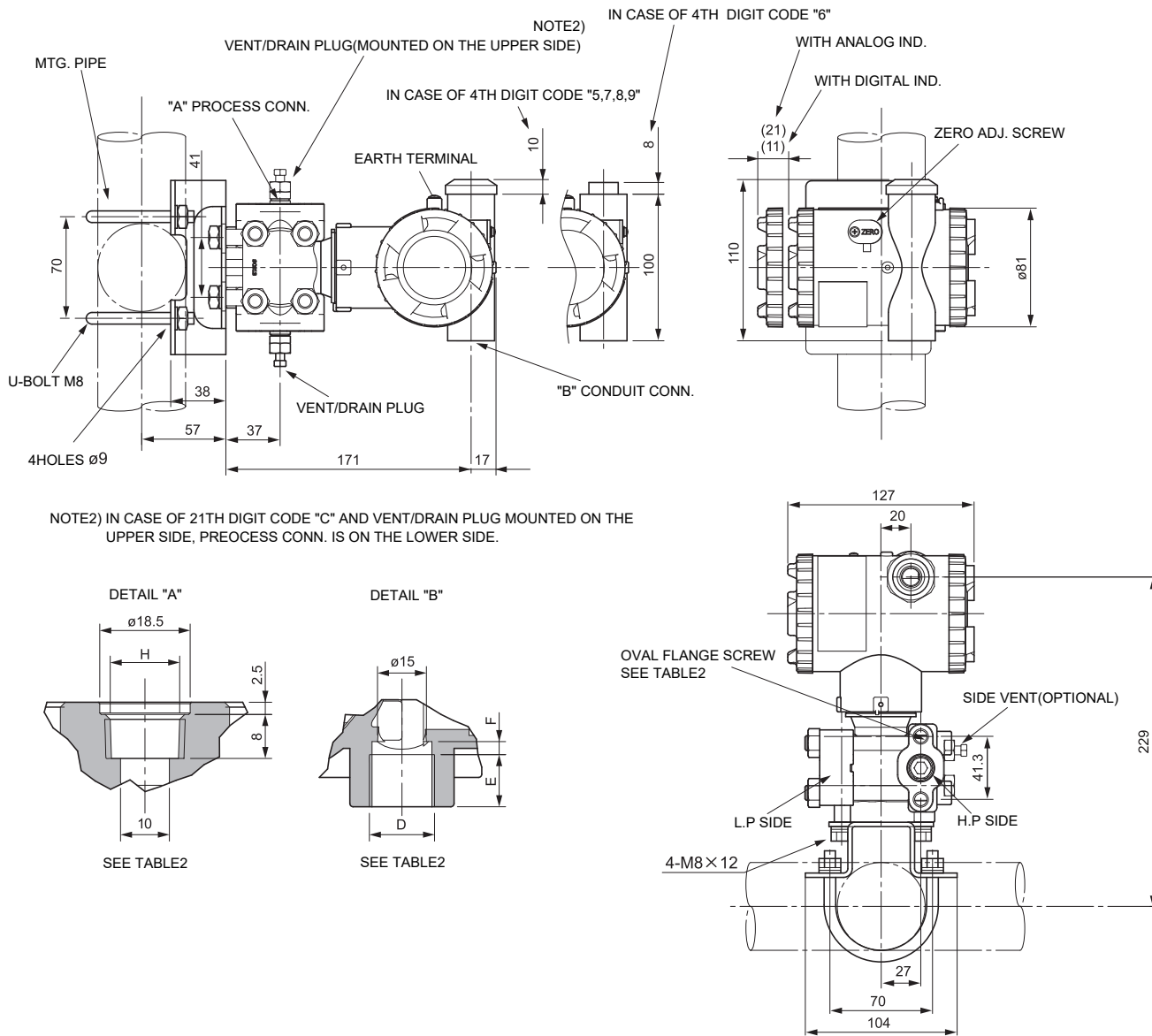
Digit	Description	Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	21
	Pressure transmitter(hydrogen permeation resistant type) DC4~20mA+HART FOUNDATION Fieldbus and PROFIBUS		F	G															
			F	K	G	0		5											
			F	D	G	0		5											
13	<Treatment of wetted parts> <Fill fluid> Standard Silicone oil (General) Standard Fluorinated oil Degreasing Silicone oil Oxygen service Fluorinated oil NACE Specification Silicone oil	Note6													Y W G A N				
14	<O ring material/Gasket material> Teflon(Gasket)															B			
15	<Vent/Drain plug type> <Bolt/Nut material> Standard Standard(Cr-Mo hexagon socket bolt/carbon steel nut) Standard Cr-Mo hexagon head bolt/carbon steel nut Standard NACE Bolt/Nut (*A) Standard NACE Bolt/Nut (*B) Standard SUS304 Bolt/Nut Standard SUS316 Bolt/Nut	Note2															A B C D E U		
16	<Options> <Material> None None Two valves manifold SUS304 Two valves manifold SUS316 Oval flange SUS304 Oval flange SUS316 Adapter SUS304 Adapter SUS316 Oval flange + Adapter SUS304 Oval flange + Adapter SUS316																Y A B C D J K E F		
21	<Other> Vent/drain plug mounted on the upper side Inspection report	Note11																	C F

(*A) NACE Bolt/Nut material: ASTM A193 B7M/A194 2HM
(*B) NACE Bolt/Nut material: ASTM A320 L7M/A194 2HM

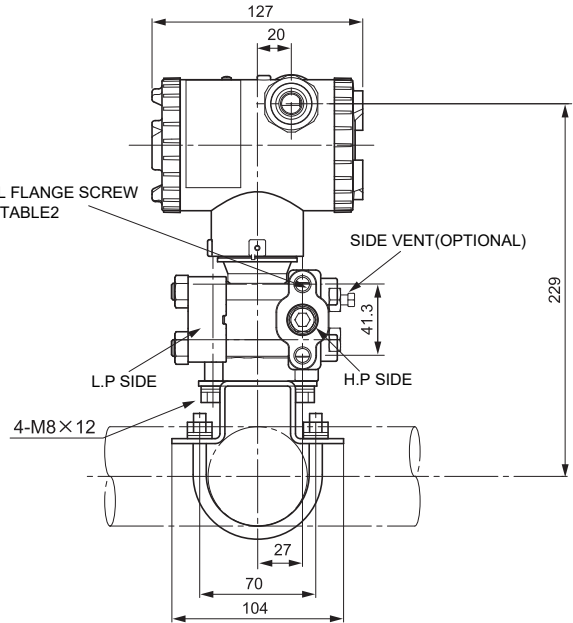
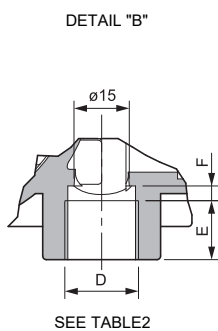
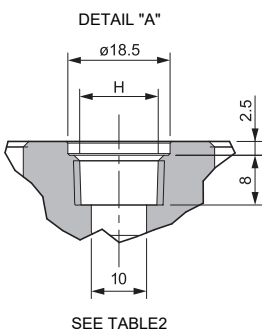
- Note1) The wetted surface of seal diaphragm is coated with gold and ceramic
 Note2) Please select SUS bolts and nuts for tropical area.
 Note3) The name of customer's tag plate can be engraved on stand stainless steel name plate. If extra tag plate is required, please select "Yes".
 Note5) Not available for 10th digit code "C".
 Note6) Not available for 15th digit code "A, B".
 Note7) Please note when select Fieldbus or Profibus transmitter.
 Note8) Available only for 4th digit code "5, S".
 Note9) Available only for 4th digit code "6, 8, T, W".
 Note10) Available only for 4th digit code "6, T".
 Note11) The digit is blank when not needed.
 Note12) When selecting L type AMP case, recommending Flat type bracket.
 When selecting T type AMP case, recommending L type bracket.
 Note13) The 8th digit code can be selected as "S", this means that it's the transmitter with safety function. SIL2 capability for single transmitter use, SIL3 capability for dual transmitter use.

OUTLINE DIAGRAM (Unit: mm)

<AMP. CASE: T TYPE > IN CASE OF 11TH DIGIT CODE "C, K, F, L"



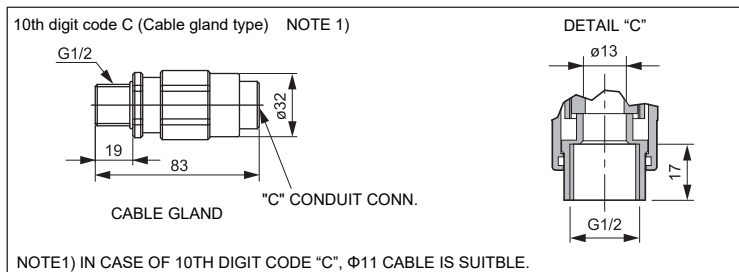
NOTE2) IN CASE OF 21TH DIGIT CODE "C" AND VENT/DRAIN PLUG MOUNTED ON THE UPPER SIDE, PREPROCESS CONN. IS ON THE LOWER SIDE.



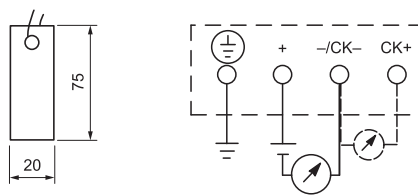
4th digit code	Conduit conn.			Process conn.	Oval flange screw
	D	E	F	H	
5	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH 15
6	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH 15
7	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH 15
8	M20x1.5	16	4	1/4-18NPT	M10 SCREW DEPTH 15
9	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH 15

TABLE 2

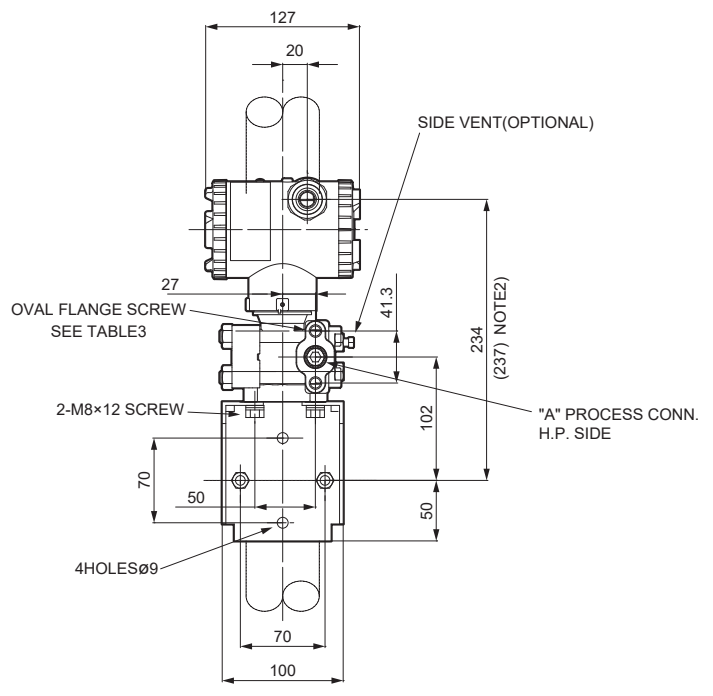
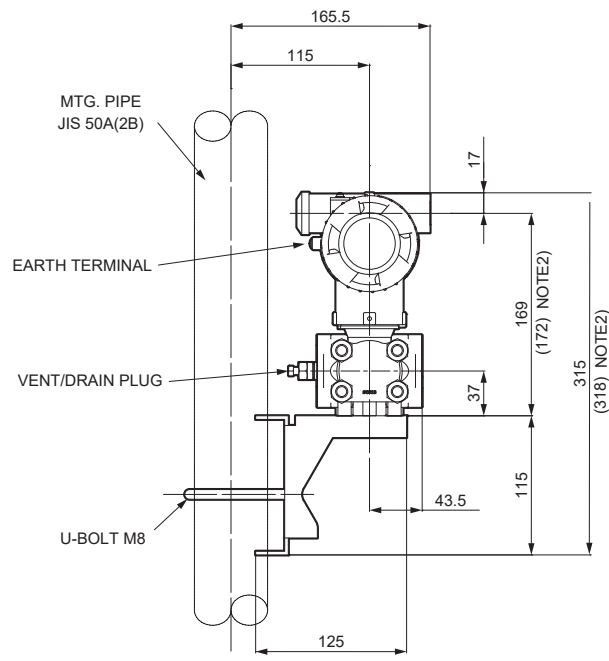
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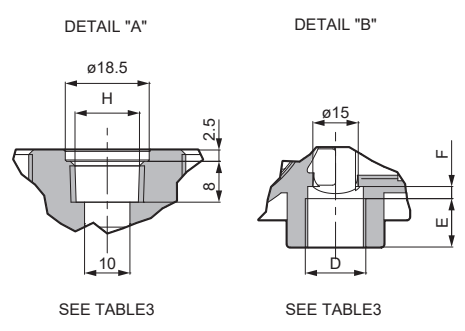
<SS TAG PLATE(OPTIONAL)> <CONNECTION DIAGRAM>



<AMP. CASE: T TYPE > IN CASE OF 11TH DIGIT CODE "M, N, P, Q"

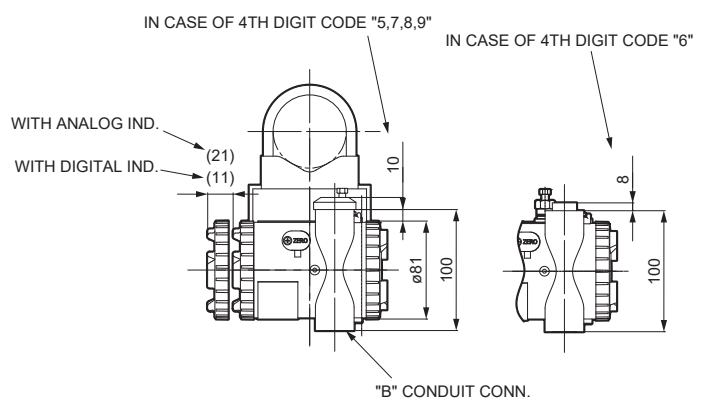


NOTE2) IN CASE OF 7TH DIGIT CODE "W,J,H,M,T"



SEE TABLE3

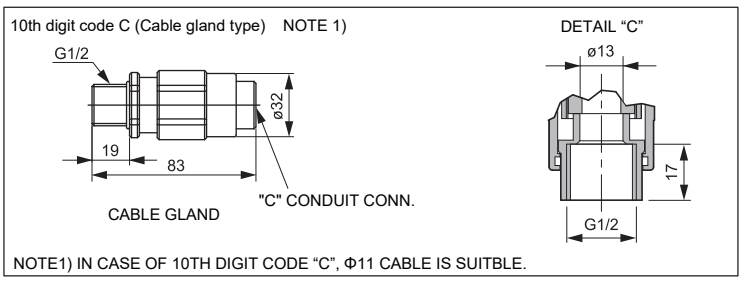
SEE TABLE3



4th digit code	Conduit conn.			Process conn.	Oval flange screw
	D	E	F	H	
5	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH 15
6	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH 15
7	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH 15
8	M20x1.5	16	4	1/4-18NPT	M10 SCREW DEPTH 15
9	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH 15

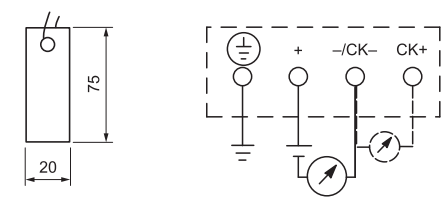
TABLE 3

<OPTIONAL PARTS FOR FLAMEPROOF OF TIIS>



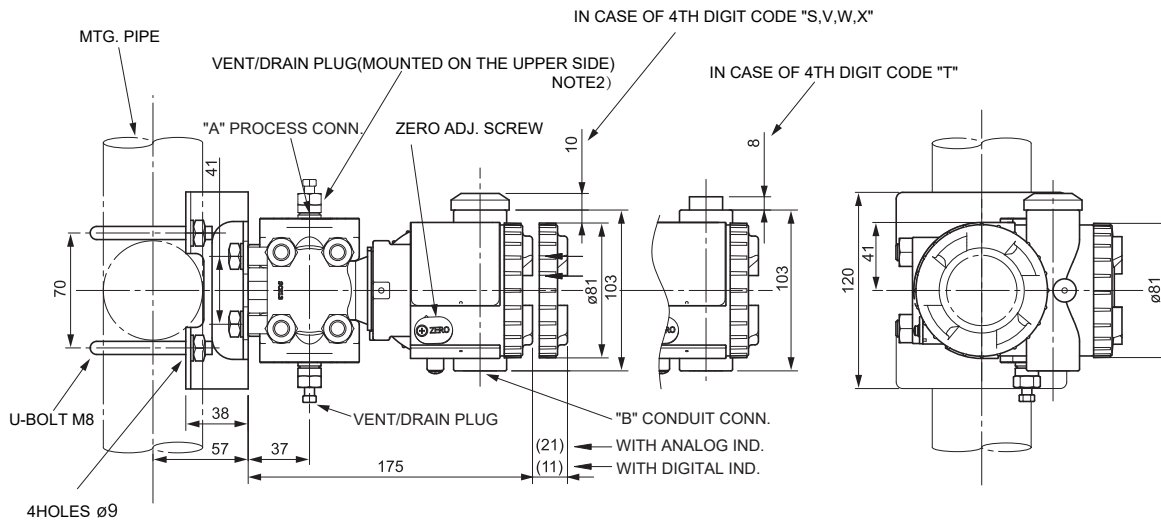
NOTE1) IN CASE OF 10TH DIGIT CODE "C", ø11 CABLE IS SUITBLE.

<SS TAG PLATE(OPTIONAL)> <CONNECTION DIAGRAM>

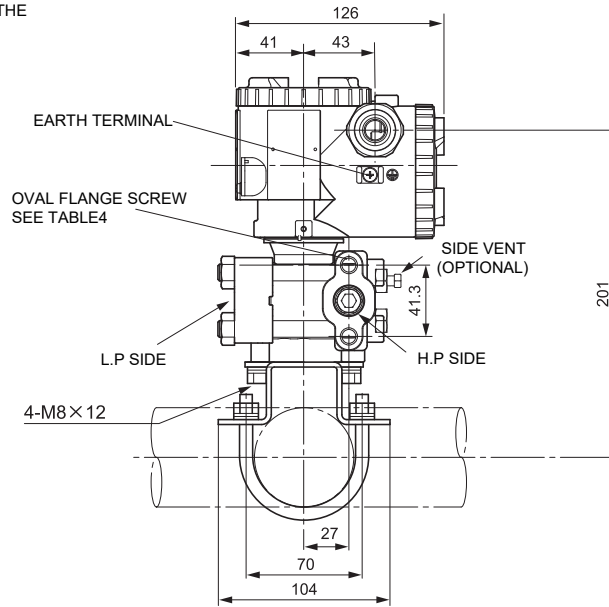
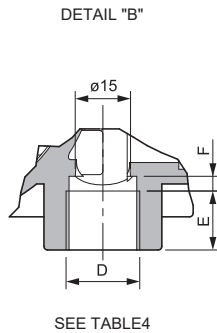
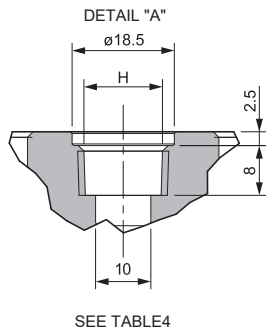


FKG

<AMP. CASE: L TYPE > IN CASE OF 11TH DIGIT CODE "C, K, F, L"



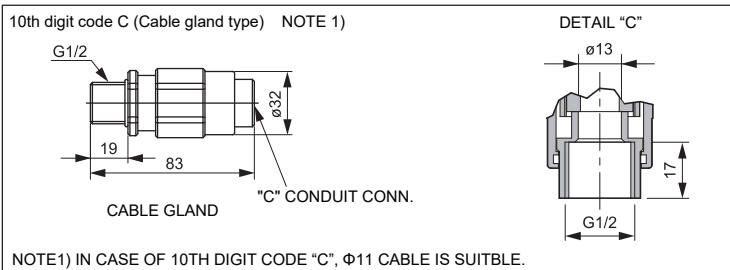
NOTE2) IN CASE OF 21TH DIGIT CODE "C" AND VENT/DRAIN PLUG MOUNTED ON THE UPPER SIDE, PREPROCESS CONN. IS ON THE LOWER SIDE.



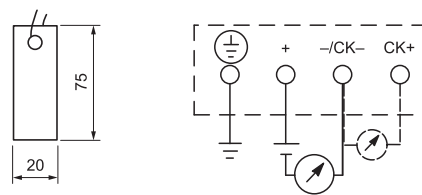
4th digit code	Conduit conn.			Process conn.	Oval flange screw
	D	E	F	H	
S	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH 15
T	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH 15
V	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH 15
W	M20x1.5	16	4	1/4-18NPT	M10 SCREW DEPTH 15
X	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH 15

TABLE 4

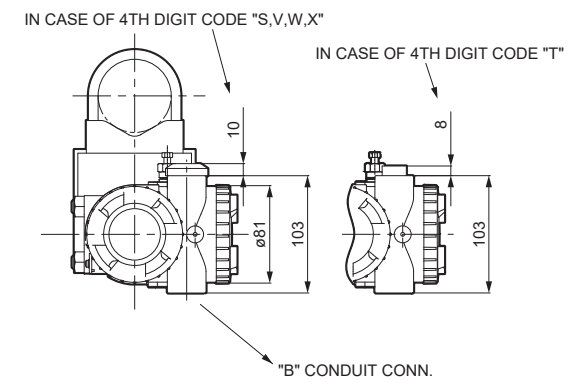
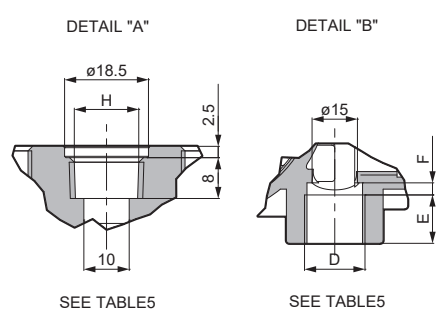
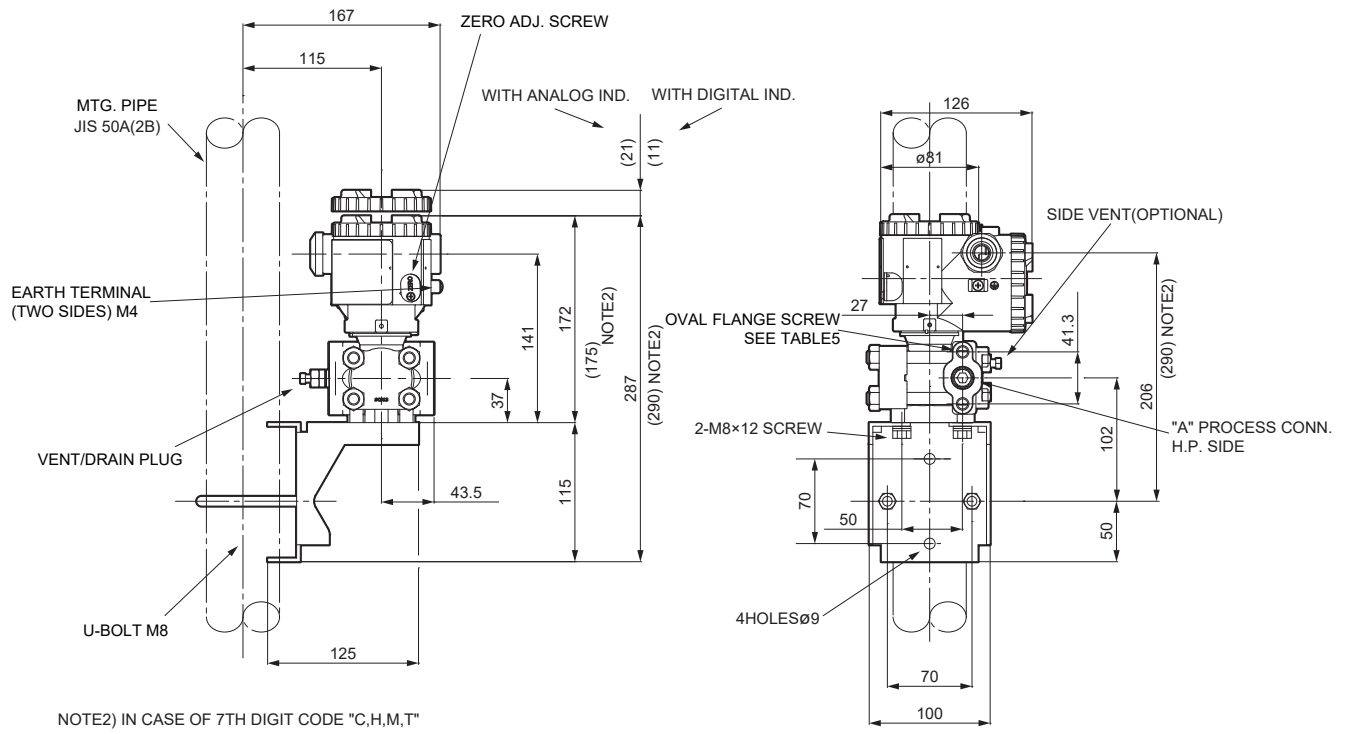
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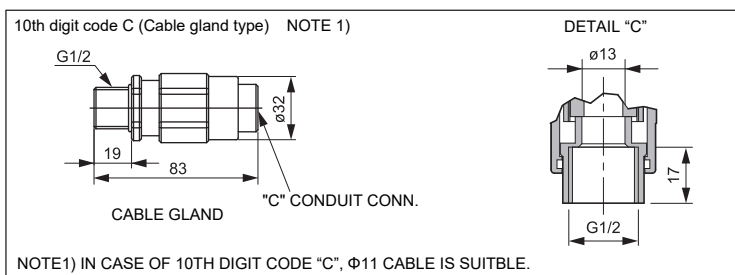
<AMP. CASE: L TYPE > IN CASE OF 11TH DIGIT CODE "M,N,P,Q"



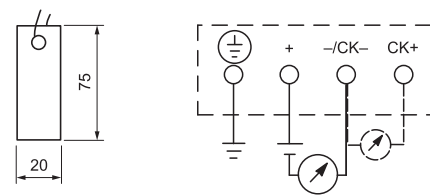
4th digit code	Conduit conn.			Process conn.	Oval flange screw
	D	E	F	H	
S	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH 15
T	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH 15
V	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH 15
W	M20x1.5	16	4	1/4-18NPT	M10 SCREW DEPTH 15
X	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH 15

TABLE 5

<OPTIONAL PARTS FOR FLAMEPROOF OF TIIS>



<SS TAG PLATE(OPTIONAL)> <CONNECTION DIAGRAM>



FKG

Table 6 Explosion proof

Authorities	Intrinsic safety	Authorities	Flameproof																								
ATEX	Ex II 1 G Ex ia II C T5 Tamb = -40°C ~ +50°C Ex ia II C T4 Tamb = -40°C ~ +70°C Entity Parameters: Ui = 28V, li = 94.3mA, Pi = 0.66W Ci = 26nF(without arrester), Li = 0.6mH(without analog indicator) Ci = 36nF(with arrester), Li = 0.7mH(with analog indicator)	ATEX	Ex II 2 GD EEx d II C T6 IP66/67 T85°C Tamb = -40°C ~ +65°C EEx d II C T5 IP66/67 T100°C Tamb = -40°C ~ +85°C																								
FM	Class I II III DIV.1 Groups A, B, C, D, E, F, G T4 Entity Type 4X <table border="1"> <thead> <tr> <th>Model</th> <th>9th digit</th> <th>13th digit</th> <th>Tamb</th> </tr> </thead> <tbody> <tr> <td>A,B,D</td> <td>Y,G,N</td> <td></td> <td>-40°C ~ +85°C</td> </tr> <tr> <td>L,P,1,2</td> <td>Y,G,N</td> <td></td> <td>-20°C ~ +80°C</td> </tr> <tr> <td>Q,S,4,5</td> <td>Y,G,N</td> <td></td> <td>-20°C ~ +60°C</td> </tr> <tr> <td>E,F,H</td> <td>Y,G,N</td> <td></td> <td>-40°C ~ +60°C</td> </tr> <tr> <td>-</td> <td>W,A,D</td> <td></td> <td>-10°C ~ +60°C</td> </tr> </tbody> </table> Entity Parameters: Vmax = 28V, Imax = 94.3mA, Pi = 0.66W, Ci = 35.98nF, Li = 0.694mH	Model	9th digit	13th digit	Tamb	A,B,D	Y,G,N		-40°C ~ +85°C	L,P,1,2	Y,G,N		-20°C ~ +80°C	Q,S,4,5	Y,G,N		-20°C ~ +60°C	E,F,H	Y,G,N		-40°C ~ +60°C	-	W,A,D		-10°C ~ +60°C	FM	Class I Div.1 Groups B, C, D T6 Type 4X Class II III Div.1 Groups E, F, G T6 Type 4X Tamb max = +60°C
Model	9th digit	13th digit	Tamb																								
A,B,D	Y,G,N		-40°C ~ +85°C																								
L,P,1,2	Y,G,N		-20°C ~ +80°C																								
Q,S,4,5	Y,G,N		-20°C ~ +60°C																								
E,F,H	Y,G,N		-40°C ~ +60°C																								
-	W,A,D		-10°C ~ +60°C																								
CSA	Class I Div.1 Groups A, B, C, D Class II Div.1 Groups E, F, G Class III Div.1 Temp code T5 Tamb max = +50°C Temp code T4 Tamb max = +70°C Entity Parameters: Vmax = 28V Imax = 94.3mA Ci = 25nF(without arrester), Li = 0.6mH(without analog indicator) Ci = 36nF(with arrester), Li = 0.7mH(with abalig indicator)	CSA	Class I Div.1 Groups C, D Class II Div.1 Groups E, F, G Class III Div.1 Note) "Seal Not Required" enclosure is allowed.																								
TIIS	Ex ia IIC T4 Tamb max = +60°C Entity Parameters: Ui = 28V, li = 94.3mA, Pi = 0.66W, Ci = 38.4nF, Li = 0.694mH	TIIS	Ex do IIB+H2 T4 Tamb max = +60°C Maximum process temp. = +120°C																								
IECEX Scheme	Ex ia II C T4 Tamb = -40°C ~ +70°C Ex ia II C T5 Tamb = -40°C ~ +50°C Entity Parameters: Ui = 28V li = 94.3mA Pi = 0.66W Ci = 26nF(without arrester), Li = 0.6mH(without analog indicator) Ci = 36nF(with arrester), Li = 0.7mH(with abalig indicator)	IECEX Scheme	Ex d II C T5 IP66/67 Tamb = -40°C ~ +85°C Ex d II C T6 IP66/67 Tamb = -40°C ~ +65°C																								
NEPSI	Ex ia IIC T4 Ex d IIB+H2T6/Ex ia IIC T4 <table border="1"> <thead> <tr> <th>Model</th> <th>9th digit</th> <th>13th digit</th> <th>Tamb</th> </tr> </thead> <tbody> <tr> <td>A,B,D</td> <td>Y,G,N</td> <td></td> <td>-40°C ~ +85°C</td> </tr> <tr> <td>L,P,1,2</td> <td>Y,G,N</td> <td></td> <td>-20°C ~ +80°C</td> </tr> <tr> <td>Q,S,4,5</td> <td>Y,G,N</td> <td></td> <td>-20°C ~ +60°C</td> </tr> <tr> <td>E F H</td> <td>Y,G,N</td> <td></td> <td>-40°C ~ +60°C</td> </tr> <tr> <td>-</td> <td>W,A,D</td> <td></td> <td>-10°C ~ +60°C</td> </tr> </tbody> </table> Entity Parameters: Ui = 42.4V, li = 113mA, Pi = 1W, Ci = 35.98nF, Li = 0.694mH	Model	9th digit	13th digit	Tamb	A,B,D	Y,G,N		-40°C ~ +85°C	L,P,1,2	Y,G,N		-20°C ~ +80°C	Q,S,4,5	Y,G,N		-20°C ~ +60°C	E F H	Y,G,N		-40°C ~ +60°C	-	W,A,D		-10°C ~ +60°C	NEPSI	Ex d II B+H2 T6 Tamb = -40°C ~ +60°C
Model	9th digit	13th digit	Tamb																								
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-	W,A,D		-10°C ~ +60°C																								
		Authorities	Type n Nonincendive																								
		ATEX	Ex II3 GD EEx nL IIC T5 Tamb = -40°C ~ +50°C EEx nL IIC T4 Tamb = -40°C ~ +70°C Specific Parameters: Model without arrester: Ui=42.4V, li=113mA, Pi=1W, Ci=25.18nF, Li=0.694mH Model with arrester: Ui=32V, li=113mA, Pi=1W, Ci=35.98nF, Li=0.694mH EEx nAL IIC T5 Tamb = -40°C ~ +50°C EEx nAL IIC T4 Tamb = -40°C ~ +70°C Specific Parameters: Model without arrester: Umax=42.4V, Imax=113mA, Pmax=1W Model with arrester: Umax=32V, Imax=113mA, Pmax=1W																								
		FM	Class I II III Div.2 Groups A, B, C, D, F, G T4 Entity Type 4X <table border="1"> <thead> <tr> <th>Model</th> <th>9th digit</th> <th>13th digit</th> <th>Tamb</th> </tr> </thead> <tbody> <tr> <td>A,B,D</td> <td>Y,G,N</td> <td></td> <td>-40°C ~ +85°C</td> </tr> <tr> <td>L,P,1,2</td> <td>Y,G,N</td> <td></td> <td>-20°C ~ +80°C</td> </tr> <tr> <td>Q,S,4,5</td> <td>Y,G,N</td> <td></td> <td>-20°C ~ +60°C</td> </tr> <tr> <td>E,F,H</td> <td>Y,G,N</td> <td></td> <td>-40°C ~ +60°C</td> </tr> <tr> <td>-</td> <td>W,A,D</td> <td></td> <td>-10°C ~ +60°C</td> </tr> </tbody> </table>	Model	9th digit	13th digit	Tamb	A,B,D	Y,G,N		-40°C ~ +85°C	L,P,1,2	Y,G,N		-20°C ~ +80°C	Q,S,4,5	Y,G,N		-20°C ~ +60°C	E,F,H	Y,G,N		-40°C ~ +60°C	-	W,A,D		-10°C ~ +60°C
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		CSA	Class I Div.2 Groups A, B, C, D Class II Div.2 Groups E, F, G Class III Div.2 Temp code T5 Tamb max = +50°C Temp code T4 Tamb max = +70°C Entity Parameters: Vmax=28V,Ci=25.18nF (without arrester), Ci=35.98nF (with arrester), Li=0.694mH																								

⚠ Caution on Safety

* Before using this product, be sure to read its instruction manual in advance.