



# TECHNICAL GUIDANCE

FCX-AIII Series

FKB...5

## REMOTE SEAL TYPE PRESSURE TRANSMITTER

### OUTLINE

The FCX-AIII pressure transmitter accurately measures gauge pressure and transmits a proportional 4 to 20mA signal.

The transmitter utilizes a unique micromachined capacitance silicon sensor with state-of-the-art microprocessor technology to provide exceptional performance and functionality.

Totally welded construction of the seals assures excellent reliability in high temperature and highly corrosive process conditions.

### FEATURES

#### 1. High accuracy

0.2% accuracy for all calibrated spans is a standard feature for all GP models covering 1.3kPa {0.013bar} range to 50000kPa {500bar} high pressure range. 0.1% accuracy is available as option.

#### 2. Minimum environmental influence

The "Advanced Floating Cell" design which protects the pressure sensor against changes in temperature, and overpressure substantially reduces total measurement error in actual field applications.

#### 3. HART® bilingual communications protocol

FCX-AIII series transmitter offers bilingual communications to speak both proprietary protocol and HART®. Any HART® compatible devices can communicate with FCX-AIII.

#### 4. Application flexibility

Various options that render the FCX-AIII suitable for almost any process applications include:

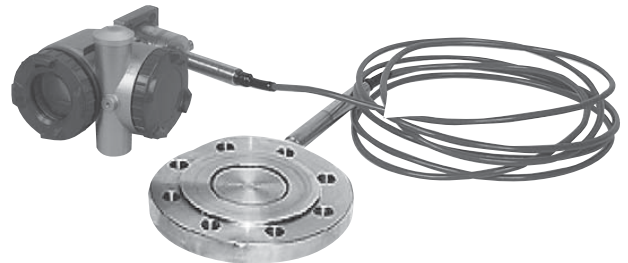
- Full range of hazardous area approvals
- Built-in RFI filter and lightning arrester
- 5-digit LCD meter with engineering unit
- Stainless steel electronics housing
- Wide selection of materials
- High temperature, high vacuum seals

#### 5. Burnout current flexibility (Under Scale: 3.2 to 4.0mA, Over Scale: 20.0 to 22.5mA)

Burnout signal level is adjustable using Model FXW Hand Held Communicator (HHC) to comply with NAMUR NE43.

#### 6. Dry calibration without reference pressure

Thanks to the best combination of unique construction of mechanical parts (Sensor unit) and high performance electronics circuit (Electronics unit), reliability of dry calibration without reference pressure is at equal level as wet calibration.



### SPECIFICATIONS

#### Functional specifications

Service: Liquid, gas, or vapor

Span, range, and overrange limit:

Type	Span limit [kPa]{bar}		Range limit [kPa]{bar}	Overrange limit [MPa] {bar}
	Min.	Max.		
FKB□□1	1.3 {0.013}	130 {1.3}	-100 to +130 {-1 to +1.3}	1 {10}
FKB□□2	5 {0.05}	500 {5}	-100 to +500 {-1 to +5}	1.5 {15}
FKB□□3	30 {0.3}	3000 {30}	-100 to +3000 {-1 to +30}	9 {90}
FKB□□4	100 {1}	10000 {100}	-100 to +10000 {-1 to +100}	15 {150}
FKB□□5	500 {5}	50000 {500}	-100 to +50000 {-1 to +500}	75 {750}

Remark: To minimize environmental influence, span should be greater than 1/40 of the max. span in most applications.

Note: Refer to code symbols on page 6 for the detail of span limit.

- Lower range limit (vacuum limit) ;

Silicone fill sensor: See Fig. 1, Fig. 2

Fluorinated fill sensor: Atmospheric pressure

- Conversion factors to different units;

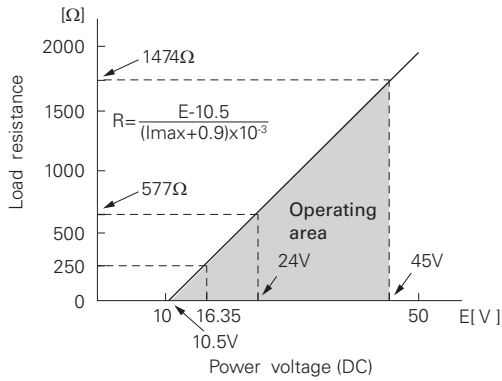
1MPa=10<sup>3</sup>kPa=10bar=10.19716kgf/cm<sup>2</sup>=145.0377psi

1kPa=10mbar=101.9716mmH<sub>2</sub>O=4.01463inH<sub>2</sub>O

Output signal: 4 to 20mA DC with digital signal superimposed on the 4 to 20mA signal.

Power supply: Transmitter operates on 10.5V to 45V DC at transmitter terminals.

Load limitations: see figure below



Note: For communication with HHC<sup>(1)</sup> (Model: FXW), min. of 250Ω is required.

Hazardous locations: SEE TABLE 2

Zero/span adjustment:

Zero and span are adjustable from the HHC<sup>(1)</sup>. Zero and span are also adjustable externally from the adjustment screw.

Damping:

Adjustable from HHC or local adjustment unit with LCD display.

The time constant is configurator between 0.06 to 32 seconds.

Zero elevation/suppression:

Zero can be elevated or suppressed within the specified range limit of each sensor model.

Normal/reverse action:

Selectable from HHC<sup>(1)</sup>.

Indication:

Analog indicator or 5-digit LCD meter, as specified.

Burnout direction: Selectable from HHC<sup>(1)</sup>

If self-diagnostic detect transmitter failure, the analog signal will be driven to either "Output Hold", "Output Overscale" or "Output Underscale" modes.

"Output Hold":

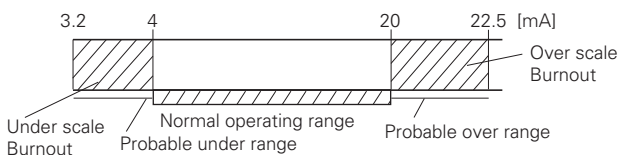
Output signal is hold as the value just before failure happens.

"Output Overscale":

Adjustable within the range 20.0mA to 22.5mA from HHC<sup>(1)</sup>

"Output Underscale":

Adjustable within the range 3.2mA to 4.0mA from HHC<sup>(1)</sup>



Output Limits conforming the NAMUR NE43 by order.

Loop-check output:

Transmitter can be configured to provide constant signal 3.2mA through 22.5mA by HHC<sup>(1)</sup>.

EMC Conformity: EN61326-1: 2006 CE

Temperature limit:

Ambient: -40 to +85°C

(-20 to +80°C for LCD indicator)

(-40 to +60°C for arrester option)

(-10 to +60°C for fluorinated oil fill transmitter)

(-10 to +85°C for silicone oil "U", "S", "K" \*)

(+20 to +85°C for silicone oil "X" \*)

\*) In case of capillary length is more than 7m, max. temperature is +55°C.

For explosionproof units (flameproof or intrinsic safety), ambient temperature must be within the limits specified by each standard.

Process:

Fill fluid	Diaphragm seal 7th code	Process temperature	Lower limit of static press.
Fluorinated oil	W, A and D	-20 to 120°C	Atmospheric pressure
Silicone oil	U	-15 to 250°C	
	X	20 to 350°C	
	Y and G	-40 to 180°C	2.7kPa abs {20mmHg abs}
	S	-15 to 250°C	
	K	-15 to 200°C	0.13kPa abs {1mmHg abs} or more

Storage: -40 to +90°C

Humidity limit: 0 to 100% RH

Communication: With HHC<sup>(1)</sup> (Model FXW), following items can be remotely displayed or configured.

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

Local configurator with LCD display (option):

Local configurator with 3 push button and LCD display can support following items.

Items	By communication with FXW		By local configurator (with 3 push button)	
	Display	Set	Display	Set
Tag No.	✓	✓	✓	✓
Model No.	✓	✓	✓	✓
Serial No. & Software Version	✓	—	✓	—
Engineering unit	✓	✓	✓	✓
Range limit	✓	—	✓	—
Measuring range	✓	✓	✓	✓
Damping	✓	✓	✓	✓
Output mode	✓	—	✓	—
Burnout direction	✓	✓	✓	✓
Calibration	✓	✓	✓	✓
Output adjust	—	✓	—	✓
Data	✓	—	✓	—
Self diagnoses	✓	—	✓	—
Printer (In case of FXW with printer option)	✓	—	—	—
External switch lock	✓	✓	✓	✓
Transmitter display	✓	✓	✓	✓
Linearize	✓	✓	—	—
Rerange	✓	✓	✓	✓
Saturate current	✓	✓	✓	✓
Write protect	✓	✓	✓	✓
History				
- Calibration history	✓	✓	✓	✓
- Ambient temperature history	✓	—	✓	—

(Note) (1) HHC: Hand Held Communicator

**Performance specifications**

Reference conditions, silicone oil fill, 316SS isolating diaphragms, 4 to 20mA analog output in linear mode.

**Accuracy rating:** (including linearity, hysteresis, and repeatability)

(Standard)

For spans greater than 1/10 of URL:  $\pm 0.2\%$  of span

For spans below 1/10 of URL:

$$\pm \left( 0.1 + 0.1 \frac{0.1 \times \text{URL}}{\text{Span}} \right) \% \text{ of span}$$

(Option) (Code; 15th digit H, K, T, G)

Not available for Max span 50000kPa model.

For spans greater than 1/10 of URL:  $\pm 0.1\%$  of span

For spans below 1/10 of URL:

$$\pm \left( 0.05 + 0.05 \frac{0.1 \times \text{URL}}{\text{Span}} \right) \% \text{ of span}$$

**Stability:**  $\pm 0.2\%$  of upper range limit (URL) for 10 years.

**Temperature effect:**

Effect per 28°C change between the limits of -40°C and +85°C

(Standard) Zero shift:  $\pm \left( 0.35 \frac{\text{URL}}{x} \right) \%$

Total effect:  $\pm \left( 0.5 \frac{\text{URL}}{x} \right) \%$

(Option) (Code; 15th digit J, K, F, G)

Zero shift:

$\pm 0.3\%$  ( $x \geq 1/4$  URL)

$\pm \left( 0.1 + 0.2 \frac{0.25 \times \text{URL}}{x} \right) \%$  ( $x < 1/4$  URL)

Total effect:

$\pm 0.4\%$  ( $x \geq 1/4$  URL)

$\pm \left( 0.2 + 0.2 \frac{0.25 \times \text{URL}}{x} \right) \%$  ( $x < 1/4$  URL)

**Overrange effect:** Zero shift; 0.2% of URL for any overrange to maximum limit

**Supply voltage effect:**

Less than 0.005% of calibrated span per 1V

**Update rate:** 60 msec

**Step response:** Time constant: 0.3s (at 23°C)

Dead time: 0.12s

(without electrical damping)

**Dielectric strength:**

500V AC, 50/60Hz 1 min., between circuit and earth.

**Insulation resistance:**

More than 100MΩ/500V DC.

**Internal resistance for external field indicator:**

12Ω or less

**Physical specifications**

**Electrical connections:**

G1/2, 1/2-14 NPT, Pg13.5, or M20 × 1.5 conduit, as specified.

**Process connections:**

JIS, ANSI, or DIN raised face flanges or screw connection JIS/ISO G1 external thread.

Refer to "Code symbols."

**Process-wetted parts material:**

Diaphragm: 316L stainless steel, MA276, Monel, Tantalum, Titanium or Zirconium

Flange face: 316L stainless steel, MA276, Monel, Tantalum, Titanium or Zirconium

Extension: 316 stainless steel

(Refer to "Code symbols")

**Non-wetted parts material:**

Electronics housing: Low copper die-cast aluminum alloy, or 316 stainless steel.

Capillary: PVC or stainless steel, as specified in 6th digit of diaphragm seal code.

Mounting flange: 316L stainless steel

Fill fluid: Silicone oil (standard) or fluorinated oil

Mounting bracket: 304 stainless steel

**Environmental protection:**

IEC IP67 and NEMA 6/6P

**Mounting:**

On 60.5mm (JIS 50A) pipe using mounting bracket, direct wall mounting

**Mass {weight}:**

Transmitter approximately 8.2 to 11.2kg without options.

Add; 0.5kg for mounting bracket

4.5kg for stainless steel housing option

1.5kg per 50mm extension of diaphragm

**Optional features**

**Indicator:**

A plug-in analog indicator (2.5% accuracy). An optional 5-digit LCD meter with engineering unit is also available.

**Local configurator with LCD display:**

An optional 5 digits LCD meter with 3 push buttons can support items as using communication with FXW.

**Arrester:**

A built-in arrester protects the electronics from lightning surges.

Lightning surge immunity:

4kV (1.2 × 50μs)

**Oxygen service:**

Special cleaning procedures are followed throughout the process to maintain all process wetted parts oil-free.

The fill fluid is fluorinated oil.

**Chlorine service:**

Oil-free procedures as above. Includes fluorinated oil for fill.

**Degreasing:**

Process-wetted parts are cleaned, but the fill fluid is standard silicone oil. Not for use on oxygen or chlorine measurement.

**Vacuum and high temperature service:**

Special silicone oil and filling procedure are applied.

See Fig.1 and Fig.2.

**Optional tag plate:**

An extra stainless steel tag for customer tag data is wired to the transmitter.

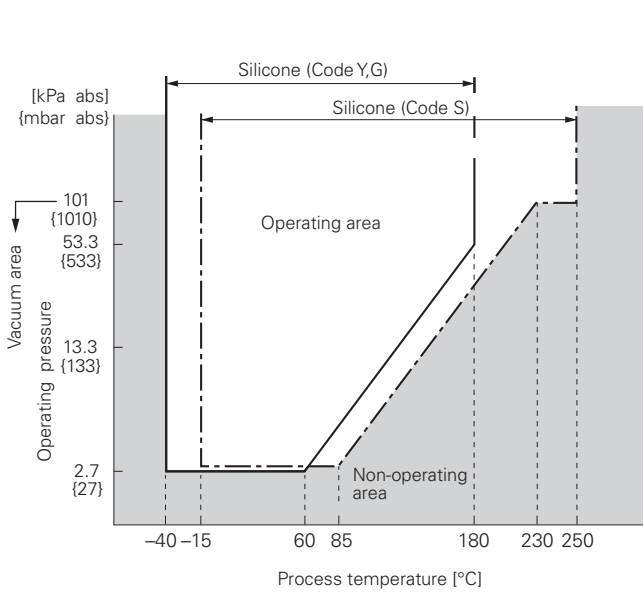
ACCESSORIES

Hand-held communicator: Model FXW

ORDERING INFORMATION

When ordering this instrument, specify.

1. CODE SYMBOLS
2. Measuring range.
3. Output orientation (burnout direction) when abnormality is occurred in the transmitter.  
Hold / Overscale / Underscale  
Unless otherwise specified, output hold function is supplied.
4. Indication method (indicated value and unit) in case of the actual scale (code D, H, P, S 2,5 on 9th digit).
5. Tag No. (up to 14 alphanumeric characters), if required.



Note: When using the transmitter in a vacuum area, locate it lower than the flange.

Fig. 1 Relation between process temperature and operating pressure

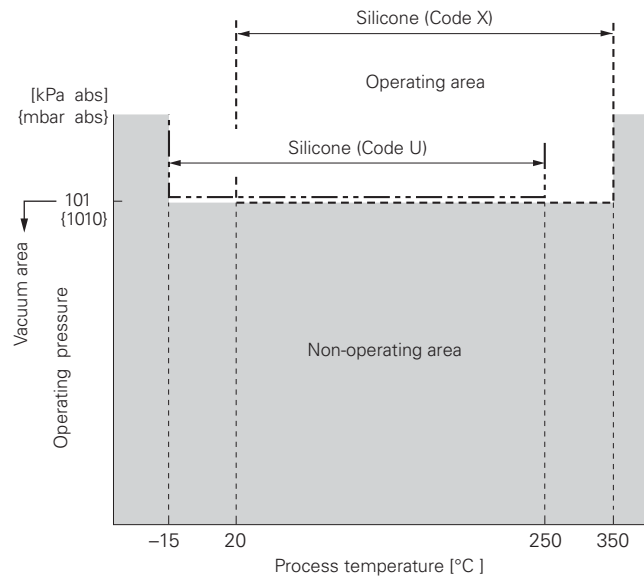
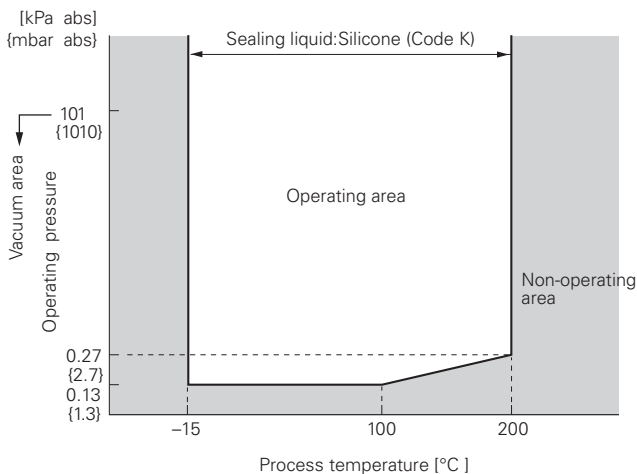


Fig. 3 Relation between process temperature and operating pressure



Note: When using the transmitter in a vacuum area, locate it lower than the flange.

Fig. 2 Relation between process temperature and operating pressure

### How to specify a model

1. Select codes for the base model and the diaphragm seal separately.
2. Base model code: FKB □□□□5-□□□□□-□□ ...15 digits
3. Diaphragm seal code: J □□□□□□ ...7 digits, for JIS flange  
A/S □□□□□□ ...7 digits, for ANSI/JPI · DIN flange
4. Join the two, adding a slash (/) between them.

Example: **FKBT43V5-1XB1Y-0\* / SR4VYAY**

└──────────┘
└──────────┘  
 Base model                  Diaphragm seal

#### <Base model>

Digit			
1st, 2nd, 3rd	Base model	FKB	Remote seal type pressure transmitter
4th	Amplifier case	T	L shape case, conduit connection NPT1/2
5th	Flange rating	4	Pressure standard 150LB
6th	Measurement span	3	Range 3000 kPa
7th	Diaphragm material	(fixed to V)	..... To be specified in diaphragm seal code
8th	Revision code	5	
9th	Indicator	1	Local configurator with LCD display
10th	Approval for hazardous locations	X	ATEX flameproof
11th	Remote seal type	B	Capillary
12th	Accessories	1	No stainless steel tag, no stainless housing
13th	Transmitter cellbody filling oil	(Fixed to Y)	.....Silicone oil
14th	(Fixed)	0	
15th	(Fixed)	*	

#### <Diaphragm seal>

1st	Diaphragm seal type	S	Diaphragm seal for ANSI/JPI standards
2nd	Capillary connection	R	Side capillary
3rd	Flange size and rating	4	ANSI/JPI 150LB 3B
4th	Flange material	V	316L SS
5th	Extension	Y	0mm
6th	Capillary length	A	1.5m
7th	Fill fluid	Y	Silicone oil

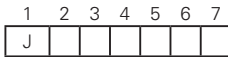
CODE SYMBOLS <Base model>

Digit	Description	Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	← Digit No. of code																																									
4	<AMP case> <Conduit connection>      <Case shape> G1/2                                  T shape 1/2-14NPT                          T shape Pg 13.5                                T shape M20 × 1.5                            T shape ----- G1/2                                  L shape 1/2-14NPT                          L shape Pg 13.5                                L shape M20 × 1.5                            L shape		F	K	B				V	5	-		B																																														
5	<Flange size and rating> ANSI/JPI 150 LB ANSI/JPI 300 LB ANSI/JPI 600 LB ----- JIS 10K JIS 20K JIS 30K JIS 63K ----- Screw type (316SS) JIS G1 screw (316SS)	Note1					4	6	L																																																		
6	<Span limit (*1) [kPa]> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Flange type</th> <th colspan="2">With flange adapter</th> <th colspan="2">Screw type</th> </tr> <tr> <th>80A/3B or larger</th> <th>50A/2B</th> <th>40A/1.5B or smaller</th> <th>Screw type</th> <th colspan="2">JIS G1 screw</th> </tr> </thead> <tbody> <tr> <td>1.3 ..... 130</td> <td>Not available</td> <td>Not available</td> <td>Not available</td> <td colspan="2">Not available</td> </tr> <tr> <td>5 ..... 500</td> <td>50 ..... 500</td> <td>50 ..... 500</td> <td>50 ..... 500</td> <td colspan="2">Not available</td> </tr> <tr> <td>30 ..... 3000</td> <td>300 ..... 3000</td> <td>300 ..... 3000</td> <td>300 ..... 3000</td> <td colspan="2">Not available</td> </tr> <tr> <td>100 ..... 10000</td> <td>1000 ... 10000</td> <td>1000 ... 10000</td> <td>1000 ... 10000</td> <td colspan="2">100 ..... 10000</td> </tr> <tr> <td>Not available</td> <td>Not available</td> <td>Not available</td> <td>Not available</td> <td colspan="2">500 ..... 50000</td> </tr> </tbody> </table> *Select the flange specification in the diaphragm seal code.	Flange type		With flange adapter		Screw type		80A/3B or larger	50A/2B	40A/1.5B or smaller	Screw type	JIS G1 screw		1.3 ..... 130	Not available	Not available	Not available	Not available		5 ..... 500	50 ..... 500	50 ..... 500	50 ..... 500	Not available		30 ..... 3000	300 ..... 3000	300 ..... 3000	300 ..... 3000	Not available		100 ..... 10000	1000 ... 10000	1000 ... 10000	1000 ... 10000	100 ..... 10000		Not available	Not available	Not available	Not available	500 ..... 50000		Note2															
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7	-									V																																																	
9	<Indicator>                          <Scale>                          <Arrester> None    -    None Analog                                        0 to 100% linear scale          None Analog                                        Custom scale                        None ----- None    -    Yes Analog                                        0 to 100% linear scale          Yes Analog                                        Custom scale                        Yes ----- Digital                                        0 to 100% linear scale          None Digital                                        Custom scale                        None Digital                                        0 to 100% linear scale          Yes Digital                                        Custom scale                        Yes ----- Digital (Local configurator unit with LCD) 0 to 100% linear scale          None Digital (Local configurator unit with LCD) Custom scale                        None Digital (Local configurator unit with LCD) 0 to 100% linear scale          Yes Digital (Local configurator unit with LCD) Custom scale                        Yes											A																																															
10	<Approvals for hazardous locations> None (for ordinary location) TIIS Flameproof (Cable grand seal) TIIS Intrinsic safety ----- FM Flameproof (or explosionproof) FM Intrinsic safety FM Combined of flameproof and intrinsic safety ----- ATEX Flameproof ATEX Intrinsic safety ATEX Type n ATEX Combined of flameproof and intrinsic safety ----- IECEx scheme, Flameproof IECEx scheme, Intrinsic safety ----- CSA Flameproof (or explosionproof) CSA Intrinsic safety and nonincentive	Note3 Note4 Note4 Note5 Note5 Note5 Note4										A	C																																														
11	<Mounting design> Capillary												B																																														

Digit	Description	Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	← Digit No. of code
12	<Option> <SS parts> <Bolt/nut>(*7)      <SS tag plate>(*6)      <SS housing>	Note6 Note7	F	K	B					5	-				Y	-	0	
	None } (*8)      None      None      Note8														1			
	None } (*8)      Yes      None      Note8														2			
	None } (*8)      None      Yes } (*12)      Note8,12														3			
	None } (*8)      Yes      Yes } (*12)      Note8,12														4			
	Carbon steel } (*9)      None      None      Note9														Y			
	Carbon steel } (*9)      Yes      None      Note9														B			
	Carbon steel } (*9)      None      Yes } (*12)      Note9,12														C			
	Carbon steel } (*9)      Yes      Yes } (*12)      Note9,12														E			
	316 SS } (*10)      None      None      Note10														A			
	316 SS } (*10)      Yes      None      Note10														D			
	316 SS } (*10)      None      Yes } (*12)      Note10,12														F			
	316 SS } (*10)      Yes      Yes } (*12)      Note10,12														G			
	660 SS } (*11)      None      None      Note11														H			
	660 SS } (*11)      Yes      None      Note11														J			
	660 SS } (*11)      None      Yes } (*12)      Note11,12														K			
	660 SS } (*11)      Yes      Yes } (*12)      Note11,12														L			
13	Transmitter cell body filling oil: Silicone oil														Y			
14	-																0	
15	<Fixed code> (*13)	Note13																*

- Note 1: (\*1) Available for 6th digit code "4", "5", and diaphragm seal 4th digit code "V", 5th digit code "Y".
- Note 2: (\*2) 100: 1 turn down is possible, but should be used at a span greater than 1/40 of the maximum span for better performance.
- Note 3: (\*3) Available for 4th digit code "S".
- Note 4: (\*4) Available for 4th digit code "6", "T".
- Note 5: (\*5) Available for 4th digit code "6", "8", "T", "W".
- Note 6: (\*6) Customer tag number can be engraved on standard stainless steel name plate. If extra tag plate is required, select "Yes".
- Note 7: (\*7) For use in tropics, select stainless bolts and nuts.
- Note 8: (\*8) Available for 6th digit code "1", "2", "3".
- Note 9: (\*9) Available for 6th digit code "4", "5".
- Note 10: (\*10) Available for 6th digit code "4".
- Note 11: (\*11) Available for 6th digit code "5".
- Note 12: (\*12) Not available for 4th digit code "5" to "8", and 10th digit code "C".
- Note 13: (\*13) In case of hazardous location type, tagplate is made by Fuji Electric Co., Ltd.

CODE SYMBOLS <Diaphragm seal for JIS>



Digit	Description		Code	Note
1	<Capillary connection>	<Flange size and rating>		Note 1
2	Flanged axial diaphragm seal connection (Center capillary)	JIS 10K 15A With flange adapter	JAA	Note 2
3		JIS 20K 15A With flange adapter	JAB	Note 2
		JIS 30K 15A With flange adapter	JAC	Note 2
	JIS 63K 15A With flange adapter	JAE	Note 2	
	JIS 10K 20A With flange adapter	JAF	Note 2	
	JIS 20K 20A With flange adapter	JAG	Note 2	
	JIS 30K 20A With flange adapter	JAH	Note 2	
	JIS 63K 20A With flange adapter	JAL	Note 2	
	JIS 10K 40A With flange adapter	JAS	Note 2	
	JIS 20K 40A With flange adapter	JAT	Note 2	
	JIS 30K 40A With flange adapter	JAU	Note 2	
	JIS 63K 40A With flange adapter	JAW	Note 2	
	JIS 10K 50A	JAX		
	JIS 20K 50A	JAY		
	JIS 30K 50A	JA1		
	JIS 63K 50A	JA3		
	JIS 10K 80A	JA4		
	JIS 20K 80A	JA5		
	JIS 30K 80A	JA6		
	JIS 10K 100A	JA7		
	JIS 20K 100A	JA8		
	JIS 30K 100A	JA9		
	Screw type (JIS G1 screw)	JAK		
	<Capillary connection>	JIS 10K 50A	JRX	
	Flanged radial diaphragm seal connection (Side capillary)	JIS 20K 50A	JRY	
		JIS 30K 50A	JR1	
		JIS 63K 50A	JR3	
		JIS 10K 80A	JR4	
		JIS 20K 80A	JR5	
		JIS 30K 80A	JR6	
		JIS 10K 100A	JR7	
		JIS 20K 100A	JR8	
	JIS 30K 100A	JR9		
	<Capillary connection>	JIS 10K 50A	JWX	
	Wafer type	JIS 20K 50A	JWY	
		JIS 30K 50A	JW1	
		JIS 63K 50A	JW3	
		JIS 10K 80A	JW4	
		JIS 20K 80A	JW5	
		JIS 30K 80A	JW6	
		JIS 10K 100A	JW7	
		JIS 20K 100A	JW8	
		JIS 30K 100A	JW9	

Digit	Description				Code	Note
4	<Diaphragm seal material>					
	<Diaphragm>	<Flange face>	<Flange>			
	316L SS	316L SS	316L SS		V	
	Hastelloy-C	Hastelloy-C	316L SS		H	
	Monel	Monel	316L SS		B	
	Tantalum	Tantalum	316L SS		T	
	Titanium	Titanium	316L SS		P	Note 3
	Zirconium	Zirconium	316L SS		R	Note 3
	316L SS + Au coating	316L SS	316L SS		J	
5	<Diaphragm extension>					
	None				Y	
	50mm	4th digit code "V" only			A	Note 4
	100mm	4th digit code "V" only			B	Note 4
	150mm	4th digit code "V" only			C	Note 4
	200mm	4th digit code "V" only			D	Note 4
6	<Remote seal type>					
	<Mounting design>	<Capillary length>	<Capillary armor>	<Mounting bracket>		
	Capillary	1.5m	PVC	304L SS	A	Note 5
	Capillary	3m	PVC	304L SS	B	Note 5
	Capillary	6m	PVC	304L SS	C	Note 5
	Capillary	5m	PVC	304L SS	1	Note 5
	Capillary	7m	PVC	304L SS	2	Note 5
	Capillary	8m	PVC	304L SS	3	Note 5
	Capillary	10m	PVC	304L SS	4	Note 5
	Capillary	1.5m	316L SS	304L SS	G	Note 6
	Capillary	3m	316L SS	304L SS	H	Note 6
	Capillary	6m	316L SS	304L SS	K	Note 6
	Capillary	5m	316L SS	304L SS	5	Note 6
	Capillary	7m	316L SS	304L SS	6	Note 6
	Capillary	8m	316L SS	304L SS	7	Note 6
	Capillary	10m	316L SS	304L SS	8	Note 6
7	<Treatment>					
	None (Standard)			Silicone oil	Y	
	None (Standard)			Fluorinated oil	W	
	Degreasing			Fluorinated oil	G	
	Oxygen service			Fluorinated oil	A	Note 7
	Chlorine service			Silicone oil	D	Note 8
	High temp. (-15 to 250°C)			Silicone oil	U	Note 9
	High temp. (20 to 350°C)			Silicone oil	X	Note 10
	High temp and vacuum (-15 to 250°C)			Silicone oil	S	Note 11
	High temp and high vacuum (-15 to 200°C)			Silicone oil	K	Note 11

- Note 1: (\*1) Select the appropriate digit codes for 1st to 3rd digit codes, so that they correspond to the flange specified in the base model 5th digit code. For example, if base model 5th digit code is "0" (i.e. JIS10K), select JIS10K flange in 1st, 2nd, and 3rd digit codes for diaphragm seal.
- Note 2: (\*2) Available for 4rd digit code "V".
- Note 3: (\*3) Available for 3rd digit code "4", "5", "6".
- Note 4: (\*4) When 7th digit code is "S" or "K", 3rd digit code should be any of "7", "8", "9".
- Note 5: (\*5) Available for 7th digit code "Y", "W", "G", "A", "D".
- Note 6: (\*6) Available for all of 7th digit code.
- Note 7: (\*7) Available for 4th digit code "V".
- Note 8: (\*8) Available for 4th digit code "H", "T".
- Note 9: (\*9) Available for 4th digit code "V", "H".
- Note 10: (\*10) Available for 3rd digit code "4", "5", "6", "7", "8", "9", and for 4th digit code "V", "H".
- Note 11: (\*11) Available for 3rd digit code "4", "5", "6", "7", "8", "9", and for 4th digit code "V".



CODE SYMBOLS <Diaphragm seal for ANSI/JPI>

1	2	3	4	5	6	7
A/S						

Digit	Description			Note	
1	<Capillary connection>	<Flange size and rating>			Note 1
2	Flanged axial diaphragm seal connection (Center capillary)	ANSI/JPI 150LB 1/2B	With flange adapter	AAK	Note 2
3		ANSI/JPI 300LB 1/2B	With flange adapter	AAL	Note 2
		ANSI/JPI 600LB 1/2B	With flange adapter	AAM	Note 2
		ANSI/JPI 150LB 3/4B	With flange adapter	AAN	Note 2
		ANSI/JPI 300LB 3/4B	With flange adapter	AAP	Note 2
		ANSI/JPI 600LB 3/4B	With flange adapter	AAQ	Note 2
		ANSI/JPI 150LB 1.5B	With flange adapter	SAE	Note 2
		ANSI/JPI 300LB 1.5B	With flange adapter	SAF	Note 2
		ANSI/JPI 600LB 1.5B	With flange adapter	AAU	Note 2
		ANSI/JPI 150LB 2B		SAH	
		ANSI/JPI 300LB 2B		SAJ	
		ANSI/JPI 600LB 2B		AAV	
		ANSI/JPI 150LB 3B		SA4	
		ANSI/JPI 300LB 3B		SA6	
		ANSI/JPI 600LB 3B		AAW	
		ANSI/JPI 150LB 4B		SA5	
		ANSI/JPI 300LB 4B		SA7	
		ANSI/JPI 600LB 4B		AAZ	
		Screwed 1/2 NPT	With flange adapter	AA0	
		Screwed 3/4 NPT	With flange adapter	AA1	
	Screwed Rc1/2	With flange adapter	AA2		
	Screwed Rc3/4	With flange adapter	AA3		
	<Capillary connection>	ANSI/JPI 150LB 2B			SRH
	Flanged radial diaphragm seal connection (Side capillary)	ANSI/JPI 300LB 2B			SRJ
		ANSI/JPI 600LB 2B			ARV
		ANSI/JPI 150LB 3B			SR4
		ANSI/JPI 300LB 3B			SR6
		ANSI/JPI 600LB 3B			ARW
		ANSI/JPI 150LB 4B			SR5
		ANSI/JPI 300LB 4B			SR7
		ANSI/JPI 600LB 4B			ARX
	<Capillary connection>	ANSI/JPI 150LB 2B			SWH
	Wafer type	ANSI/JPI 300LB 2B			SWJ
		ANSI/JPI 600LB 2B			AWV
		ANSI/JPI 150LB 3B			SW4
		ANSI/JPI 300LB 3B			SW6
		ANSI/JPI 600LB 3B			AWW
		ANSI/JPI 150LB 4B			SW5
		ANSI/JPI 300LB 4B			SW7
		ANSI/JPI 600LB 4B			AWX

- Note 1: (\*1) Select the appropriate digit codes for 1st to 3rd digit codes, so that they correspond to the flange specified in the base model 5th digit code. For example, if base model 5th digit code is "0" (i.e. JIS10K), select JIS10K flange in 1st, 2nd, and 3rd digit codes for diaphragm seal.
- Note 2: (\*2) Available for 4rd digit code "V".
- Note 3: (\*3) Available for 3rd digit code "4", "6", "W".
- Note 4: (\*4) When 7th digit code is "S" or "K", 3rd digit code should be any of "5", "7", "X".
- Note 5: (\*5) Available for 7th digit code "Y", "W", "G", "A", "D".
- Note 6: (\*6) Available for all of 7th digit code.
- Note 7: (\*7) Available for 4th digit code "V".
- Note 8: (\*8) Available for 4th digit code "H", "T".
- Note 9: (\*9) Available for 4th digit code "V", "H".
- Note 10: (\*10) Available for 3rd digit code "4", "5", "6", "7", "W", "X", and for 4th digit code "V", "H".
- Note 11: (\*11) Available for 3rd digit code "4", "5", "6", "7", "W", "X", and for 4th digit code "V".

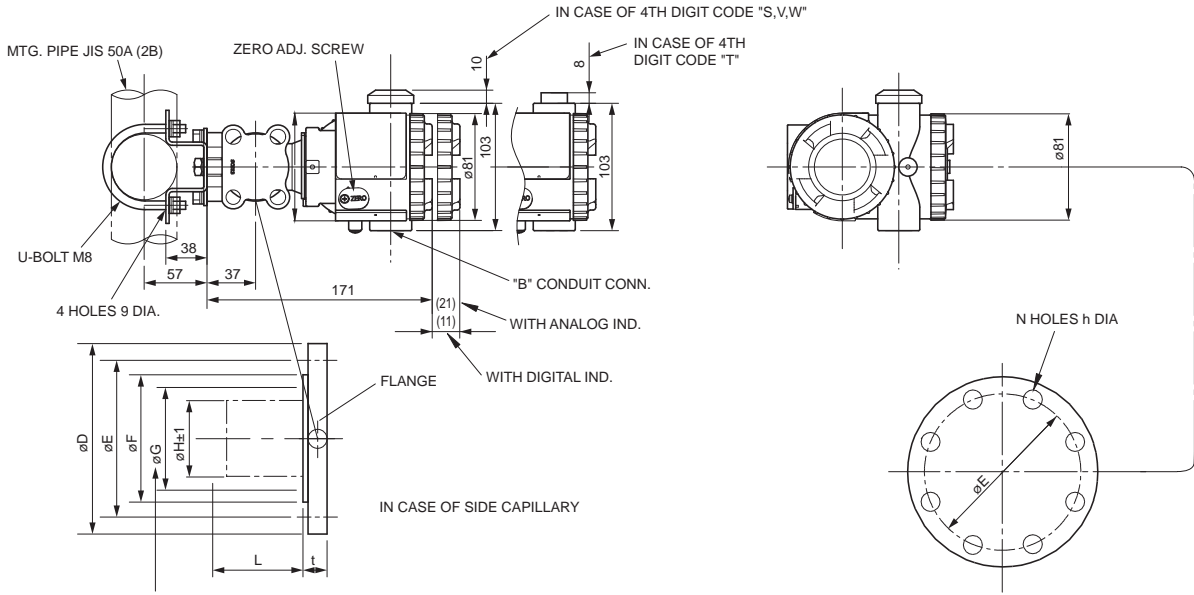
Digit	Description			Code	Note
4	<Diaphragm seal material>				
	<Diaphragm>	<Flange face>	<Flange>		
	316L SS	316L SS	316L SS	V	
	Hastelloy-C	Hastelloy-C	316L SS	H	
	Monel	Monel	316L SS	B	
	Tantalum	Tantalum	316L SS	T	
	Titanium	Titanium	316L SS	P	Note 3
	Zirconium	Zirconium	316L SS	R	Note 3
	316L SS + Au coating	316L SS	316L SS	J	
5	<Diaphragm extension>				
	None			Y	
	50mm	4th digit code "V" only		A	Note 4
	100mm	4th digit code "V" only		B	Note 4
	150mm	4th digit code "V" only		C	Note 4
	200mm	4th digit code "V" only		D	Note 4
6	<Remote seal type>				
	<Mounting design>	<Capillary length>	<Capillary armor>	<Mounting bracket>	
	Capillary	1.5m	PVC	304L SS	A Note 5
	Capillary	3m	PVC	304L SS	B Note 5
	Capillary	6m	PVC	304L SS	C Note 5
	Capillary	5m	PVC	304L SS	1 Note 5
	Capillary	7m	PVC	304L SS	2 Note 5
	Capillary	8m	PVC	304L SS	3 Note 5
	Capillary	10m	PVC	304L SS	4 Note 5
	Capillary	1.5m	SS	304L SS	G Note 6
	Capillary	3m	SS	304L SS	H Note 6
	Capillary	6m	SS	304L SS	K Note 6
	Capillary	5m	316L SS	304L SS	5 Note 6
	Capillary	7m	316L SS	304L SS	6 Note 6
	Capillary	8m	316L SS	304L SS	7 Note 6
	Capillary	10m	316L SS	304L SS	8 Note 6
7	<Treatment>			<Fill fluid>	
	None (Standard)			Silicone oil	Y
	None (Standard)			Fluorinated oil	W
	Degreasing			Silicone oil	G
	Oxygen service			Fluorinated oil	A Note 7
	Chlorine service			Fluorinated oil	D Note 8
	High temp. (-15 to 250°C)			Silicone oil	U Note 9
	High temp. (20 to 350°C)			Silicone oil	X Note 10
	High temp and vacuum (-15 to 250°C)			Silicone oil	S Note 11
	High temp and high vacuum (-15 to 200°C)			Silicone oil	K Note 11

OUTLINE DIAGRAM (Unit:mm)

<AMP. case: L type> Flange type

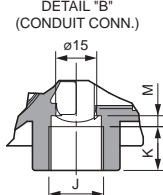
Flange size : JIS 50A, 80A, 100A  
ANSI 2B, 3B, 4B

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4",  
BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.



4th digit of the code symbols	Conduit conn.		
	J	K	M
S	G 1/2	18	2
T	1/2-14NPT	16	4
V	Pg13.5	10.5	4.5
W	M20x1.5	16	4

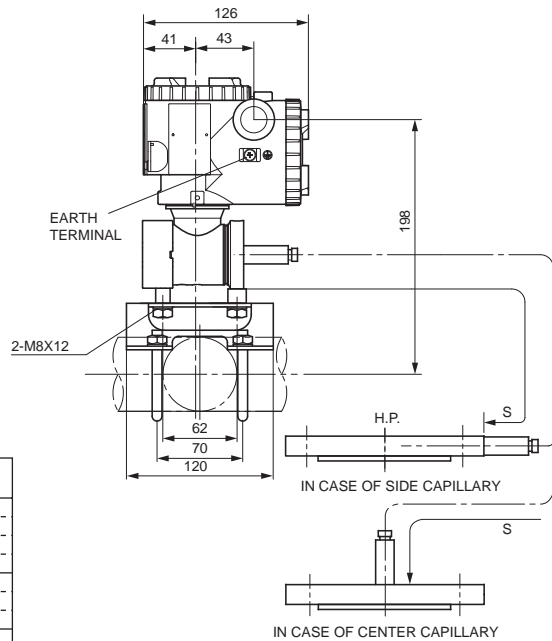
TABLE 2



SEE TABLE 2

Diaphragm section 1st code	Diaphragm section 3rd code	øD	øE	øF	øG	øH±1	t *1	t *2	N-øh	FLANGE
J	X	155	120	96	49	48	16	24	4-19	JIS 10K 50A
J	Y	155	120	96	49	48	18	24	8-19	JIS 20K 50A
J	1	165	130	105	49	48	22	24	8-19	JIS 30K 50A
J	3	185	145	105	49	48	34	34	8-23	JIS 63K 50A
J	4	185	150	126	100	73	18	24	8-19	JIS 10K 80A
J	5	200	160	132	100	73	22	24	8-23	JIS 20K 80A
J	6	210	170	140	100	73	28	28	8-23	JIS 30K 80A
J	7	210	175	151	103	96	18	24	8-19	JIS 10K 100A
J	8	225	185	160	103	96	24	24	8-23	JIS 20K 100A
J	9	240	195	160	103	96	32	32	8-25	JIS 30K 100A
S	H	152	120.6	92.1	49	48	19	24	4-19	ANSI/JPI 150LB 2B
S	J	165	127	92.1	49	48	22.5	24	8-19	ANSI/JPI 300LB 2B
A	V	165	127	92.1	49	48	31.9	31.9	8-19	ANSI/JPI 600LB 2B
S	4	190	152.4	127	100	73	24	24	4-19	ANSI/JPI 150LB 3B
S	6	210	168.3	127	100	73	28.5	28.5	8-22.2	ANSI/JPI 300LB 3B
A	W	210	168.3	127	100	73	38.4	38.4	8-22.2	ANSI/JPI 600LB 3B
S	5	229	190.5	157.2	103	96	24	24	8-19	ANSI/JPI 150LB 4B
S	7	254	200	157.2	103	96	32	32	8-22.2	ANSI/JPI 300LB 4B
A	X	273	215.9	157.2	103	96	44.9	44.9	8-26	ANSI/JPI 600LB 4B

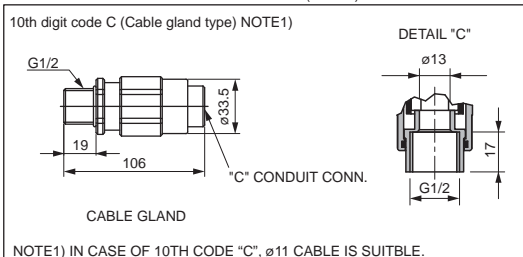
\*1: In case of diaphragm seal section 2nd code "A" (center capillary).  
\*2: In case of diaphragm seal section 2nd code "R" (side capillary), "W" (wafer type).



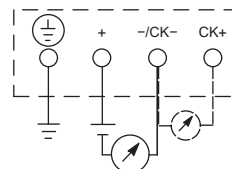
Diaphragm section 5th code	L	MASS APPROX (kg)
Y	0	8.2
A	50	9.2
B	100	10.2
C	150	10.7
D	200	11.2

Diaphragm section 6th code	S(m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

OPTION PARTS FOR FLAMEPROOF OF TIIS (JAPAN)



CONNECTION DIAGRAM



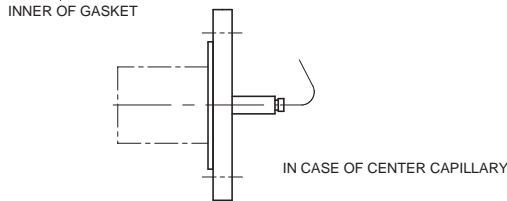
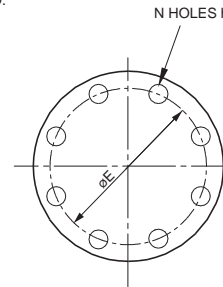
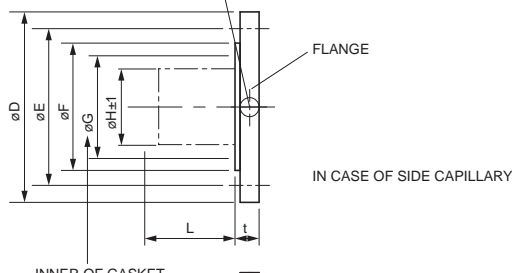
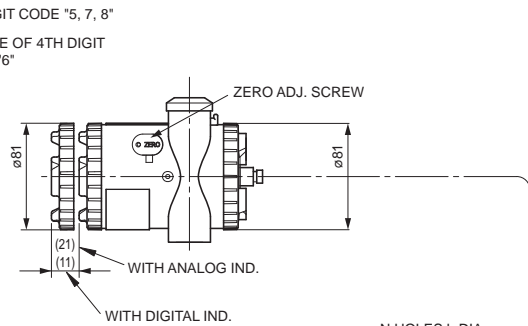
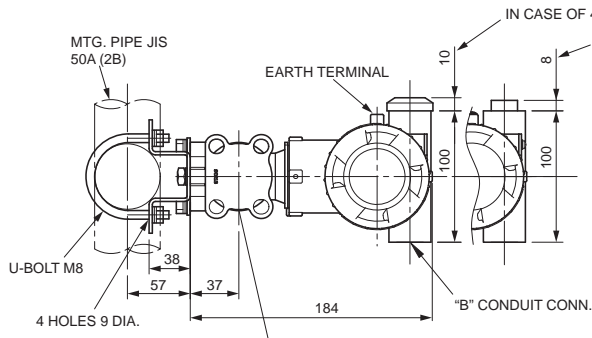
<SS TAG PLATE>



<AMP. case: T type> Flange type

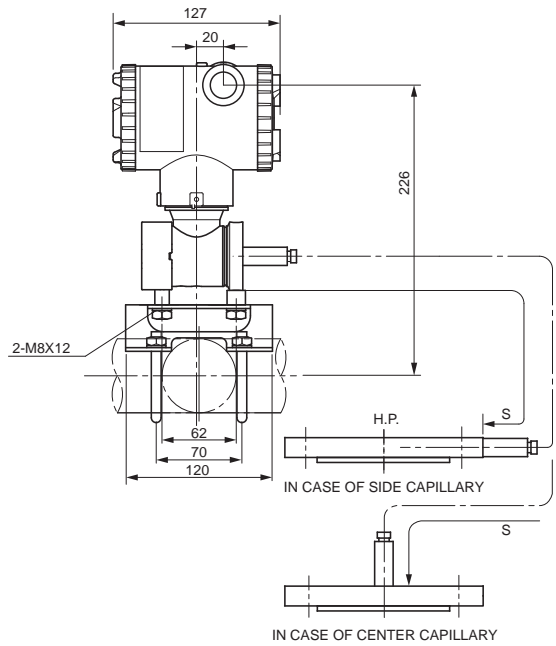
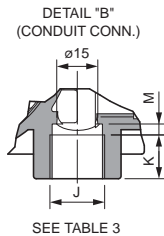
Flange size : JIS 50A, 80A, 100A  
ANSI 2B, 3B, 4B

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4",  
BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.



4th digit of the code symbols	Conduit conn.		
	J	K	M
5	G 1/2	18	2
6	1/2-14NPT	16	4
7	Pg13.5	10.5	4.5
8	M20x1.5	16	4

TABLE 3



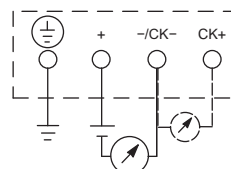
Diaphragm section 1st code	Diaphragm section 3rd code	ØD	ØE	ØF	ØG	ØH±1	t <sup>1</sup>	t <sup>2</sup>	N-Øh	FLANGE
J	X	155	120	96	49	48	16	24	4-19	JIS 10K 50A
J	Y	155	120	96	49	48	18	24	8-19	JIS 20K 50A
J	1	165	130	105	49	48	22	24	8-19	JIS 30K 50A
J	3	185	145	105	49	48	34	34	8-23	JIS 63K 50A
J	4	185	150	126	100	73	18	24	8-19	JIS 10K 80A
J	5	200	160	132	100	73	22	24	8-23	JIS 20K 80A
J	6	210	170	140	100	73	28	28	8-23	JIS 30K 80A
J	7	210	175	151	103	96	18	24	8-19	JIS 10K 100A
J	8	225	185	160	103	96	24	24	8-23	JIS 20K 100A
J	9	240	195	160	103	96	32	32	8-25	JIS 30K 100A
S	H	152	120.6	92.1	49	48	19	24	4-19	ANSI/JPI 150LB 2B
S	V	165	127	92.1	49	48	22.5	24	8-19	ANSI/JPI 300LB 2B
A	V	165	127	92.1	49	48	31.9	31.9	8-19	ANSI/JPI 600LB 2B
S	4	190	152.4	127	100	73	24	24	4-19	ANSI/JPI 150LB 3B
S	6	210	168.3	127	100	73	28.5	28.5	8-22.2	ANSI/JPI 300LB 3B
A	W	210	168.3	127	100	73	38.4	38.4	8-22.2	ANSI/JPI 600LB 3B
S	5	229	190.5	157.2	103	96	24	24	8-19	ANSI/JPI 150LB 4B
S	7	254	200	157.2	103	96	32	32	8-22.2	ANSI/JPI 300LB 4B
A	X	273	215.9	157.2	103	96	44.9	44.9	8-26	ANSI/JPI 600LB 4B

\*1: In case of diaphragm seal section 2nd code "A" (center capillary).  
\*2: In case of diaphragm seal section 2nd code "R" (side capillary), "W" (wafer type).

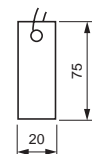
Diaphragm section 5th code	L	MASS APPROX (kg)
Y	0	8.2
A	50	9.2
B	100	10.2
C	150	10.7
D	200	11.2

Diaphragm section 6th code	S(m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

CONNECTION DIAGRAM



<SS TAG PLATE>

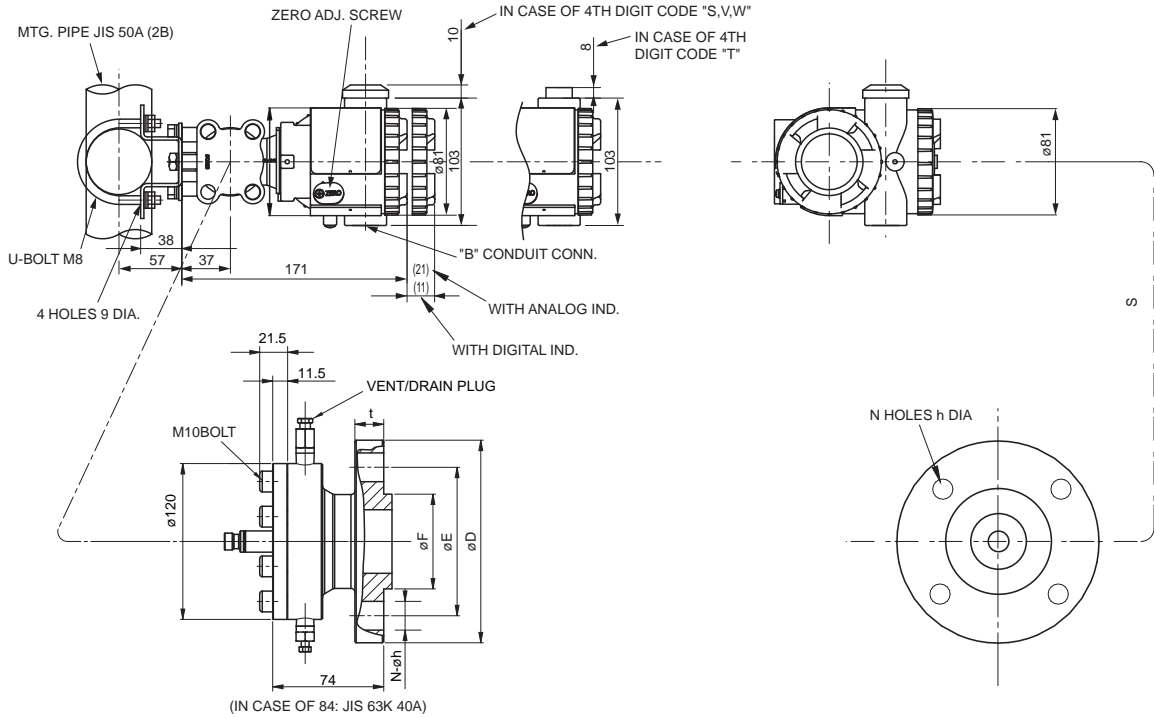


<AMP. case: L type>

Flange adapter (Flange connection type)

Flange size : JIS 15A, 20A, 40A  
ANSI 1/2B, 3/4B, 1.5B

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4",  
BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.



4th digit of the code symbols	Conduit conn.		
	J	K	M
S	G1/2	18	2
T	1/2-14NPT	16	4
V	Pg13.5	10.5	4.5
W	M20x1.5	16	4

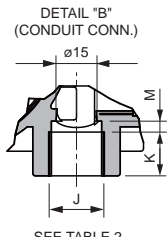
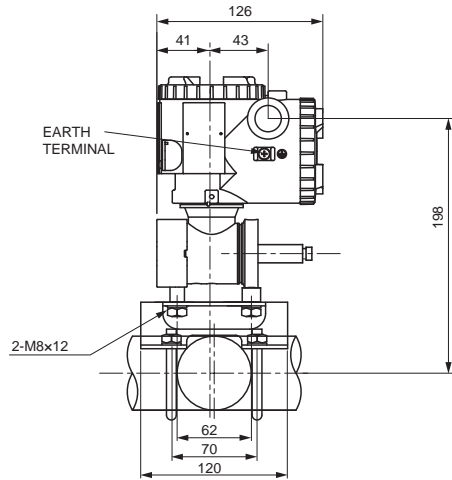


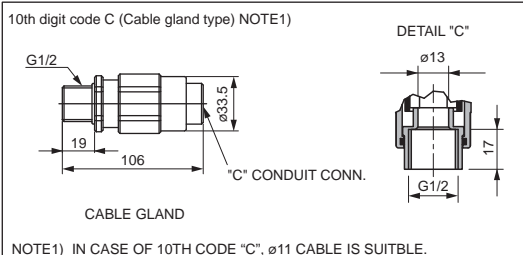
TABLE 2

Diaphragm section 1st code	Diaphragm section 3rd code	øD	øE	øF	t	N-sh	FLANGE
J	A	95	70	51	12	4-15	JIS 10K 15A
J	B	95	70	51	14	4-15	JIS 20K 15A
J	C	115	80	55	18	4-19	JIS 30K 15A
J	E	120	85	55	23	4-19	JIS 63K 15A
J	F	100	75	56	14	4-15	JIS 10K 20A
J	G	100	75	56	16	4-15	JIS 20K 20A
J	H	120	85	60	18	4-19	JIS 30K 20A
J	L	135	95	60	25	4-23	JIS 63K 20A
J	S	140	105	81	16	4-19	JIS 10K 40A
J	T	140	105	81	18	4-19	JIS 20K 40A
J	U	160	120	90	22	4-23	JIS 30K 40A
J	W	175	130	90	32	4-25	JIS 63K 40A
A	K	89	60.3	34.9	11.5	4-16	ANSI/JPI 150LB 1/2B
A	L	95	66.7	34.9	14.5	4-16	ANSI/JPI 300LB 1/2B
A	M	95	66.7	34.9	20.9	4-16	ANSI/JPI 600LB 1/2B
A	N	98	69.9	42.9	13	4-16	ANSI/JPI 150LB 3/4B
A	P	117	82.5	42.9	16	4-20	ANSI/JPI 300LB 3/4B
A	Q	117	82.5	42.9	22.4	4-20	ANSI/JPI 600LB 3/4B
S	E	127	98.4	73	17.5	4-16	ANSI/JPI 150LB 1.5B
S	F	156	114.3	73	20.6	4-23	ANSI/JPI 300LB 1.5B
A	U	156	114.3	73	28.9	4-23	ANSI/JPI 600LB 1.5B

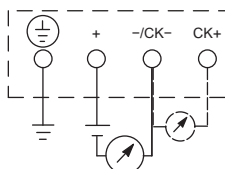


Diaphragm section 6th code	S (m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

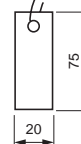
OPTION PARTS FOR FLAMEPROOF OF TIIS (JAPAN)



CONNECTION DIAGRAM



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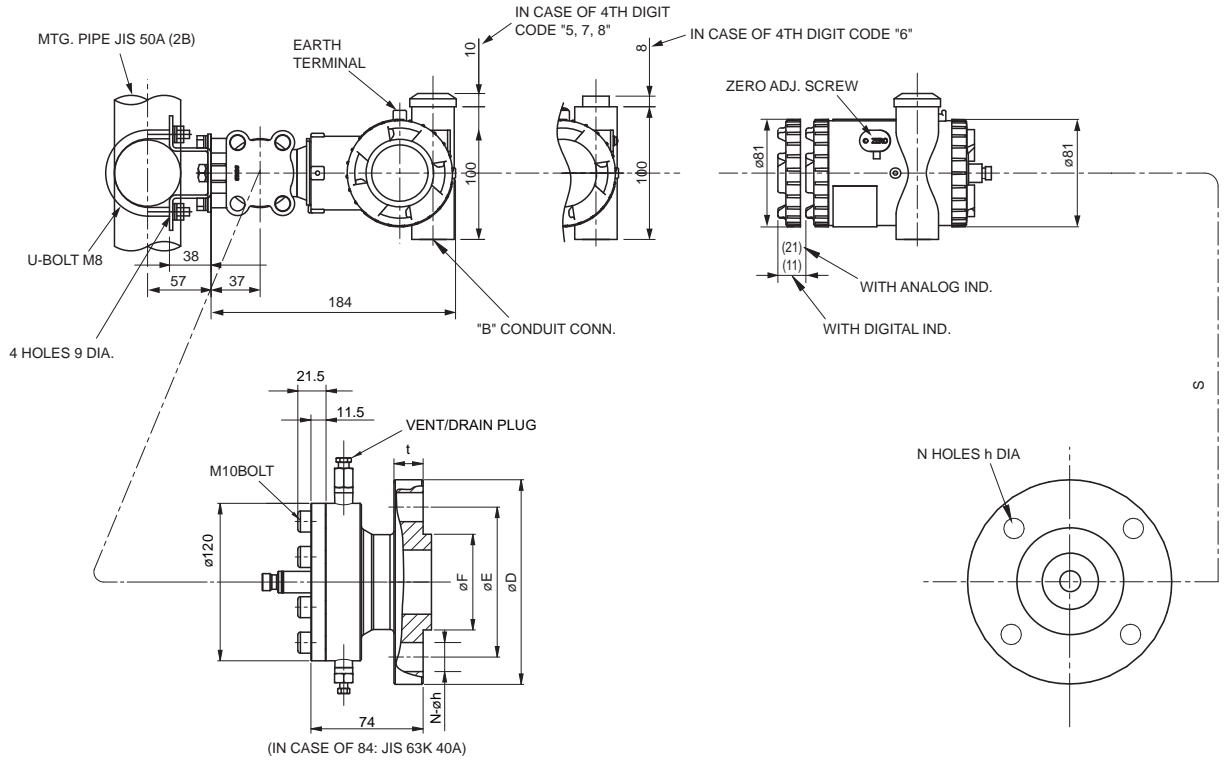


<AMP. case: T type>

Flange adapter (Flange connection type)

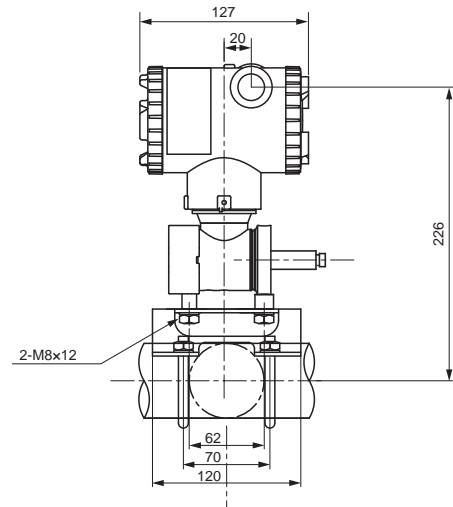
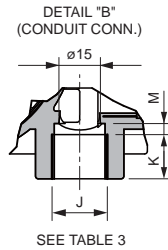
Flange size : JIS 15A, 20A, 40A  
ANSI 1/2B, 3/4B, 1.5B

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4",  
BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.



4th digit of the code symbols	Conduit conn.		
	J	K	M
5	G1/2	18	2
6	1/2-14NPT	16	4
7	Pg13.5	10.5	4.5
8	M20x1.5	16	4

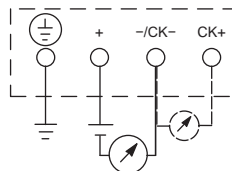
TABLE 3



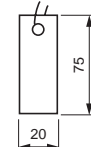
Diaphragm section 1st code	Diaphragm section 3rd code	øD	øE	øF	t	N-øh	FLANGE
J	A	95	70	51	12	4-15	JIS 10K 15A
J	B	95	70	51	14	4-15	JIS 20K 15A
J	C	115	80	55	18	4-19	JIS 30K 15A
J	E	120	85	55	23	4-19	JIS 63K 15A
J	F	100	75	56	14	4-15	JIS 10K 20A
J	G	100	75	56	16	4-15	JIS 20K 20A
J	H	120	85	60	18	4-19	JIS 30K 20A
J	L	135	95	60	25	4-23	JIS 63K 20A
J	S	140	105	81	16	4-19	JIS 10K 40A
J	T	140	105	81	18	4-19	JIS 20K 40A
J	U	160	120	90	22	4-23	JIS 30K 40A
J	W	175	130	90	32	4-25	JIS 63K 40A
A	K	89	60.3	34.9	11.5	4-16	ANSI/JPI 150LB 1/2B
A	L	95	66.7	34.9	14.5	4-16	ANSI/JPI 300LB 1/2B
A	M	95	66.7	34.9	20.9	4-16	ANSI/JPI 600LB 1/2B
A	N	98	69.9	42.9	13	4-16	ANSI/JPI 150LB 3/4B
A	P	117	82.5	42.9	16	4-20	ANSI/JPI 300LB 3/4B
A	Q	117	82.5	42.9	22.4	4-20	ANSI/JPI 600LB 3/4B
S	E	127	98.4	73	17.5	4-16	ANSI/JPI 150LB 1.5B
S	F	156	114.3	73	20.6	4-23	ANSI/JPI 300LB 1.5B
A	U	156	114.3	73	28.9	4-23	ANSI/JPI 600LB 1.5B

Diaphragm section 6th code	S (m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

CONNECTION DIAGRAM



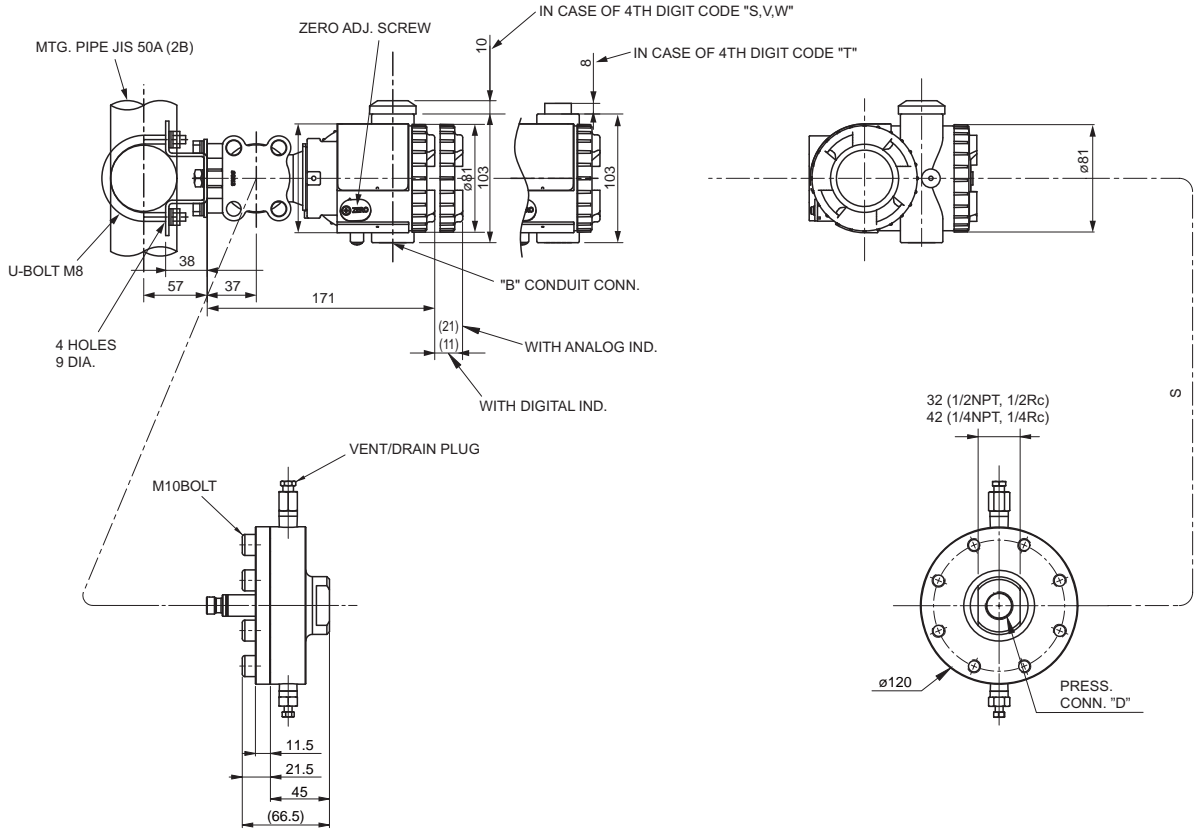
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<AMP. case: L type>

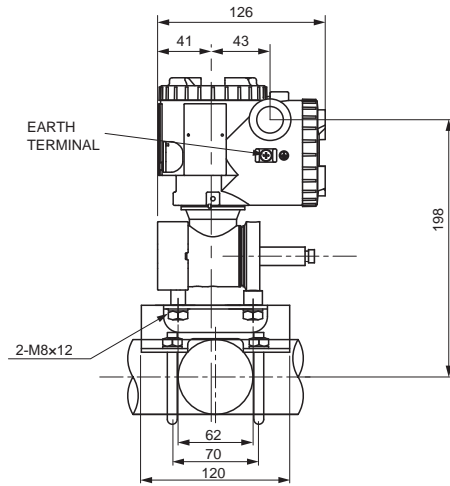
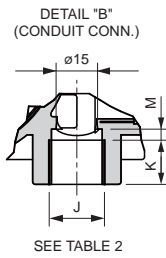
Flange adapter (Screw connection type)

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4", BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.



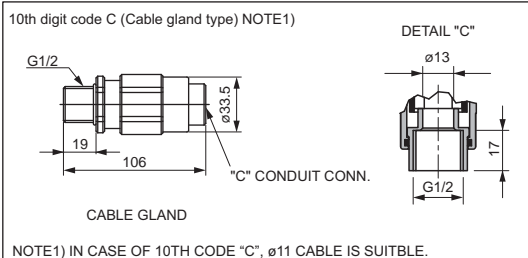
4th digit of the code symbols	Conduit conn.		
	J	K	M
S	G1/2	18	2
T	1/2-14NPT	16	4
V	Pg13.5	10.5	4.5
W	M20x1.5	16	4

TABLE 2

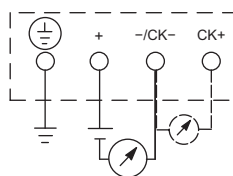


Diaphragm section 6th code	S (m)	Diaphragm section 3rd code	Press. conn. "D"
A, G	1.5	2	Rc 1/2
B, H	3	0	1/2-14NPT
1, 5	5	3	Rc 3/4
C, K	6	1	3/4-14NPT
2, 6	7		
3, 7	8		
4, 8	10		

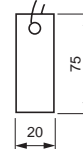
OPTION PARTS FOR FLAMEPROOF OF TIIS (JAPAN)



CONNECTION DIAGRAM



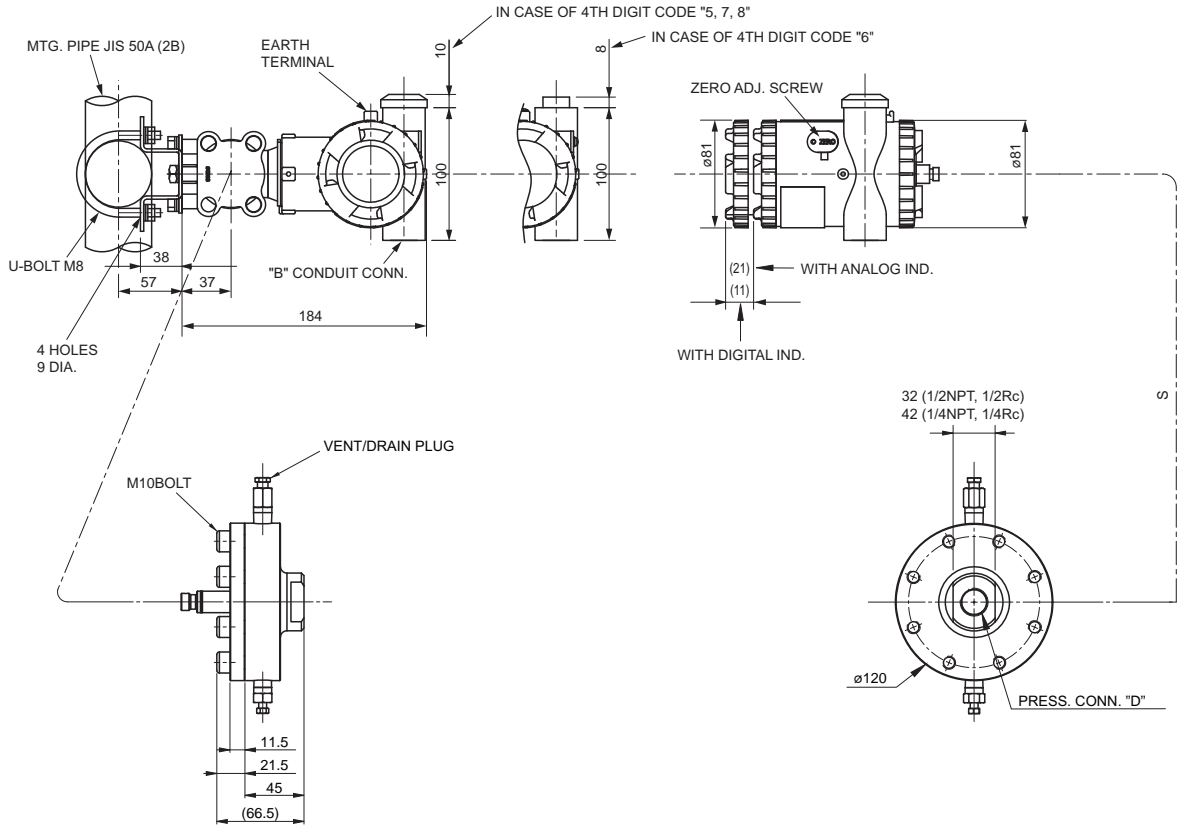
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<AMP. case: T type>

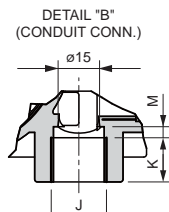
Flange adapter (Screw connection type)

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4",  
BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.

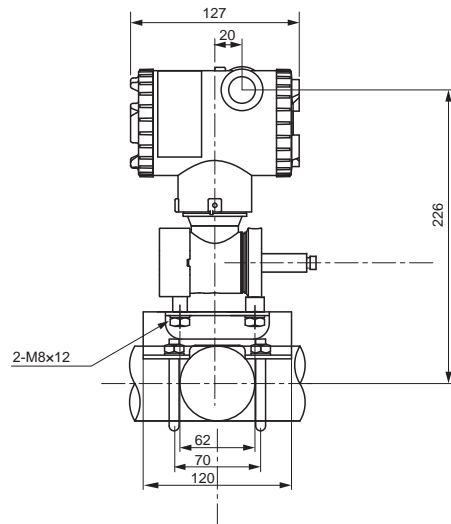


4th digit of the code symbols	Conduit conn.		
	J	K	M
5	G1/2	18	2
6	1/2-14NPT	16	4
7	Pg13.5	10.5	4.5
8	M20x1.5	16	4

TABLE 3



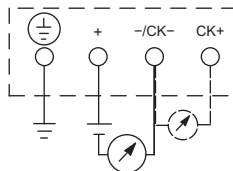
SEE TABLE 3



Diaphragm section 6th code	S (m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

Diaphragm section 3rd code	Press. conn. "D"
2	Rc 1/2
0	1/2-14NPT
3	Rc 3/4
1	3/4-14NPT

CONNECTION DIAGRAM

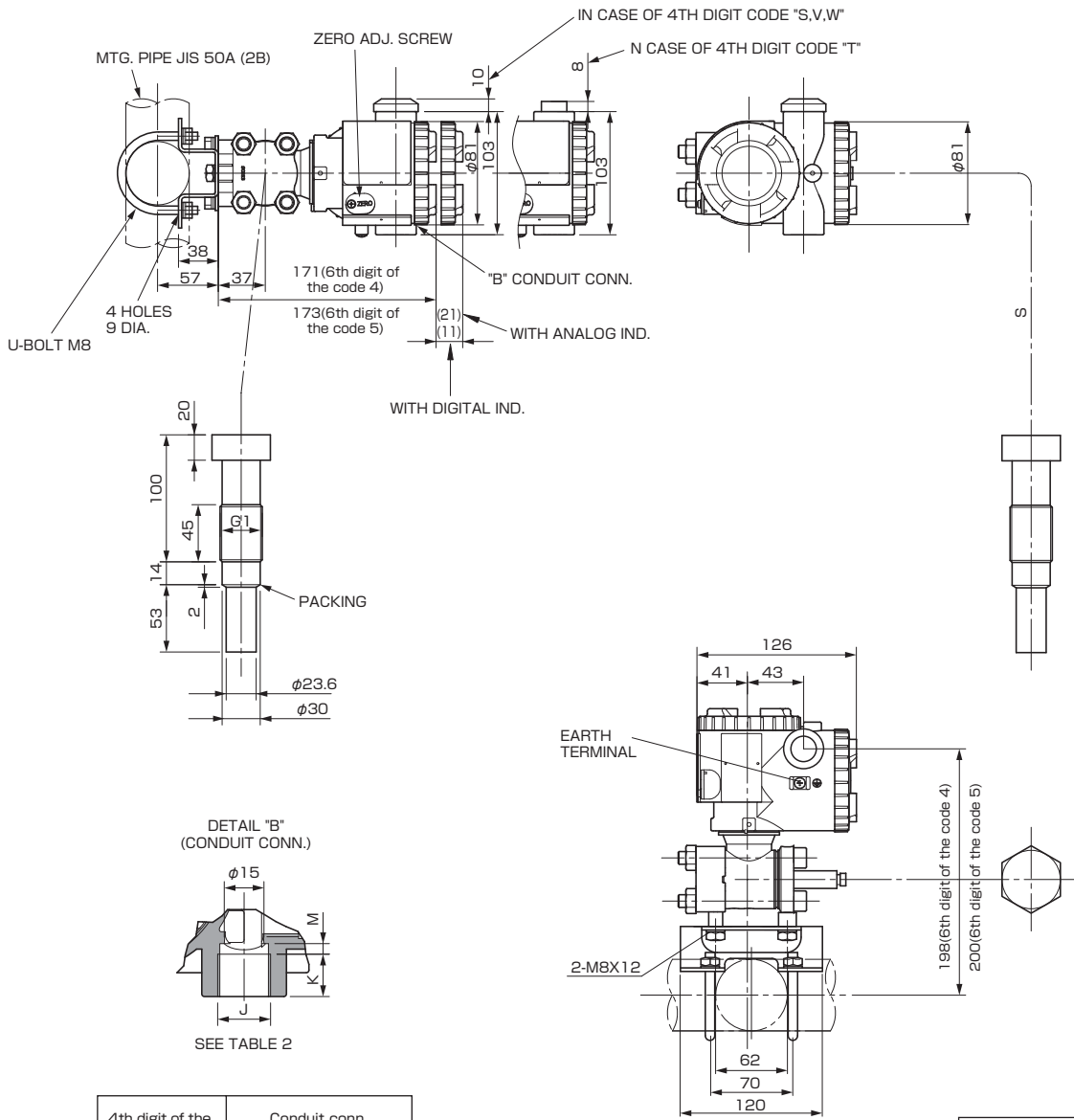


<SS TAG PLATE>



<AMP. case: L type> Screw type

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4", BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.

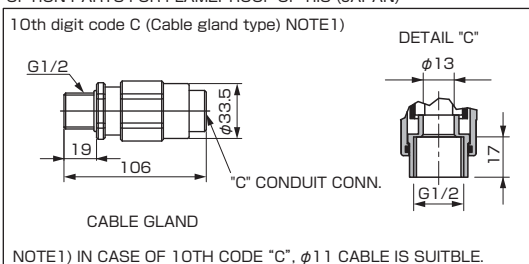


4th digit of the code symbols	Conduit conn.		
	J	K	M
S	G 1/2	18	2
T	1/2-14NPT	16	4
V	Pg13.5	10.5	4.5
W	M20x1.5	16	4

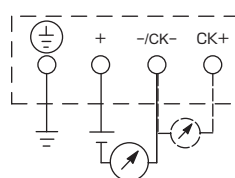
TABLE 2

Diaphragm section 6th code	S(m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

OPTION PARTS FOR FLAMEPROOF OF TIIS (JAPAN)



CONNECTION DIAGRAM



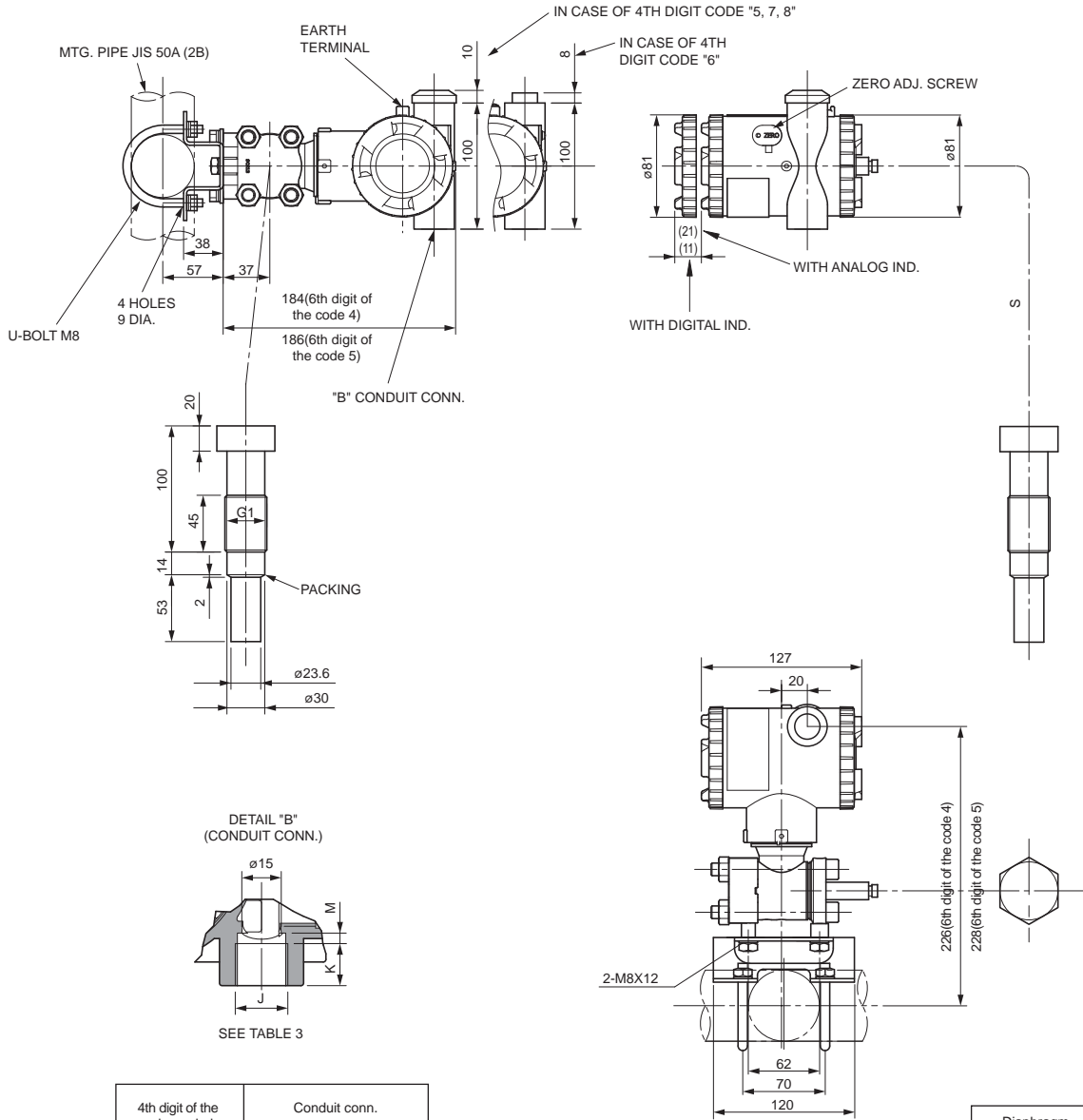
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<AMP. case: T type> Screw type

\* IN CASE OF BASE MODEL CODE 6TH DIGIT "4",  
BOLTS AND NUTS FOR DETECTING UNIT ATTACHED.

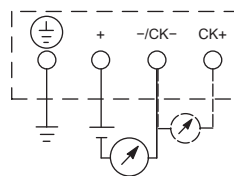


4th digit of the code symbols	Conduit conn.		
	J	K	M
5	G 1/2	18	2
6	1/2-14NPT	16	4
7	Pg13.5	10.5	4.5
8	M20x1.5	16	4

TABLE 3

Diaphragm section 6th code	S(m)
A, G	1.5
B, H	3
1, 5	5
C, K	6
2, 6	7
3, 7	8
4, 8	10

CONNECTION DIAGRAM



<SS TAG PLATE>



TABLE 2

Authorities	Intrinsic safety																					
ATEX	Ex II 1 G Ex ia IIC T5 Tamb = -40°C to +50°C Ex ia IIC T4 Tamb = -40°C to +70°C  Entity Parameters: Ui=28V, Ii=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)																					
Factory Mutual	Class I II III Div.1 Groups A, B, C, D, E, F, G T4 Entity Type 4X <table border="1"> <thead> <tr> <th>Base model</th> <th>Diaphragm</th> <th>Temp</th> </tr> </thead> <tbody> <tr> <td>9th digit</td> <td>7th digit</td> <td></td> </tr> <tr> <td>A,B,D</td> <td>Y,G,U,X,S,K</td> <td>-40°C to +85°C</td> </tr> <tr> <td>L,P,1,2</td> <td>Y,G,U,X,S,K</td> <td>-20°C to +80°C</td> </tr> <tr> <td>Q,S,4,5</td> <td>Y,G,U,X,S,K</td> <td>-20°C to +60°C</td> </tr> <tr> <td>E,F,H</td> <td>Y,G,U,X,S,K</td> <td>-40°C to +60°C</td> </tr> <tr> <td>-</td> <td>W,A,D</td> <td>-10°C to +60°C</td> </tr> </tbody> </table> Entity Parameters: Vmax=28V, Imax=94.3mA, Pi=0.66W, Ci=35.98nF, Li=0.694mH	Base model	Diaphragm	Temp	9th digit	7th digit		A,B,D	Y,G,U,X,S,K	-40°C to +85°C	L,P,1,2	Y,G,U,X,S,K	-20°C to +80°C	Q,S,4,5	Y,G,U,X,S,K	-20°C to +60°C	E,F,H	Y,G,U,X,S,K	-40°C to +60°C	-	W,A,D	-10°C to +60°C
Base model	Diaphragm	Temp																				
9th digit	7th digit																					
A,B,D	Y,G,U,X,S,K	-40°C to +85°C																				
L,P,1,2	Y,G,U,X,S,K	-20°C to +80°C																				
Q,S,4,5	Y,G,U,X,S,K	-20°C to +60°C																				
E,F,H	Y,G,U,X,S,K	-40°C to +60°C																				
-	W,A,D	-10°C to +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), Ci=36nF (With Arrester), Li=0.6mH (Without analog meter), Li=0.7mH (With analog meter)																					
TIIS	Ex ia IIC T4 Tamb max = +60°C Entity Parameters: Ui=28V, Ii=94.3mA, Pi=0.66W, Ci=40.92nF, Li=0.694mH																					
IECEX Scheme	Ex ia IIC T4 Tamb = -40°C to +70°C Ex ia IIC T5 Tamb = -40°C to +50°C Entity Parameters: Ui=28V, Ii=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)																					

Authorities	Flameproof																					
ATEX	Ex II 2 GD Ex d IIC T6 IP66/67 T85°C Tamb = -40°C to +65°C Ex d IIC T5 IP66/67 T100°C Tamb = -40°C to +85°C																					
Factory Mutual	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																					
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 do IIB+H <sub>2</sub> T4 Tamb max = +60°C Maximum process temp. = +120°C																					
IECEX Scheme	Ex d IIC T5 IP66/67 Tamb = -40°C to +85°C Ex d IIC T6 IP66/67 Tamb = -40°C to +65°C																					
Authorities	Type n Nonincendive																					
ATEX	Ex II 3 GD EEx nL IIC T5 Tamb = -40°C to +50°C EEx nL IIC T4 Tamb = -40°C to +70°C Specific Parameters: Model without arrester: Ui=42.4V, Ii=113mA, Pi=1W, Ci=25.18nF, Li=0.694mH Model with arrester: Ui=32V, Ii=113mA, Pi=1W, Ci=35.98nF, Li=0.694mH  EEx nAL IIC T5 Tamb = -40°C to +50°C EEx nAL IIC T4 Tamb = -40°C to +70°C Specific Parameters: Model without arrester: Umax=42.4V, Imax=113mA, Pmax=1W Model with arrester: Umax=32V, Imax=113mA, Pmax=1W																					
Factory Mutual  (pending)	Class I II III Div.2 Groups A, B, C, D, F, G T4 Entity Type 4X <table border="1"> <thead> <tr> <th>Base model</th> <th>Diaphragm</th> <th>Temp</th> </tr> </thead> <tbody> <tr> <td>9th digit</td> <td>7th digit</td> <td></td> </tr> <tr> <td>A,B,D</td> <td>Y,G,U,X,S,K</td> <td>-40°C to +85°C</td> </tr> <tr> <td>L,P,1,2</td> <td>Y,G,U,X,S,K</td> <td>-20°C to +80°C</td> </tr> <tr> <td>Q,S,4,5</td> <td>Y,G,S,K</td> <td>-20°C to +60°C</td> </tr> <tr> <td>E,F,H</td> <td>Y,G,U,X,S,K</td> <td>-40°C to +60°C</td> </tr> <tr> <td>-</td> <td>W,A,D</td> <td>-10°C to +60°C</td> </tr> </tbody> </table>	Base model	Diaphragm	Temp	9th digit	7th digit		A,B,D	Y,G,U,X,S,K	-40°C to +85°C	L,P,1,2	Y,G,U,X,S,K	-20°C to +80°C	Q,S,4,5	Y,G,S,K	-20°C to +60°C	E,F,H	Y,G,U,X,S,K	-40°C to +60°C	-	W,A,D	-10°C to +60°C
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Q,S,4,5	Y,G,S,K	-20°C to +60°C																				
E,F,H	Y,G,U,X,S,K	-40°C to +60°C																				
-	W,A,D	-10°C to +60°C																				



\* Specification is subject to change without notice.

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