PRESSURE TRANSMITTER

DATA SHEET FKG···5

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.

FEATURES

1. **High accuracy up to ±0.04%**
   0.065% accuracy as standard, 0.04% accuracy as option. Fuji's micro-capacitance silicon sensor assures this accuracy for all elevated or suppressed calibration ranges without additional adjustment.
2. **Minimum environmental influence**
   The "Advance Floating Cell" design which protects the pressure sensor against changes in temperature, and overpressure substantially reduces total measurement error in actual field applications.
3. **Fuji/HART® bilingual communications protocol**
   FCX–AIII series transmitter offers bilingual communications to speak both Fuji 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
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
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.
10.5V to 32V DC for the units with optional arrester.

Span, range and overrange limit:

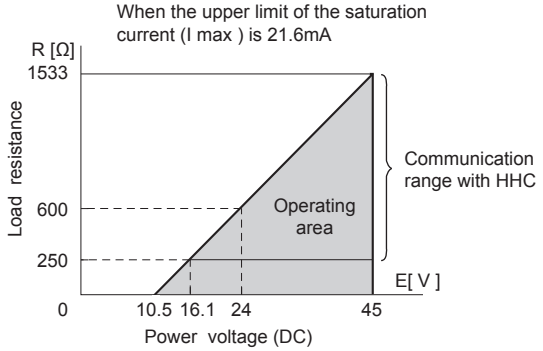
Type	Span limit [kPa] {bar}		Range limit [kPa] {bar}		Overrange limit [MPa] {bar}
	Min.	Max.	Lower limit	Upper limit	
FKG□01	1.3 {0.013}	130 {1.3}	−100 {−1}	130 {1.3}	1 {10}
FKG□02	5 {0.05}	500 {5}	−100 {−1}	500 {5}	1.5 {15}
FKG□03	30 {0.3}	3000 {30}	−100 {−1}	3000 {30}	9 {90}
FKG□04	100 {1}	10000 {100}	−100 {−1}	10000 {100}	15 {150}
FKG□05	500 {5}	50000 {500}	−100 {−1}	50000 {500}	75 {750}

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

– Lower range limit (vacuum limit) ;
Silicone fill sensor: See Fig. 1
Fluorinated fill sensor: 66kPa abs (500mmHg abs) at below 60°C

– Conversion factors to different units;
1 MPa=10^3 kPa=10bar=10.19716kgf/cm^2= 145.0377psi
1kPa=10mbar=101.9716mmH_2O =4.01463inH_2O

Load limitations: see figure below



Note) The loed resistance varies with the upper limit of the saturation current [I max]

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

Note: For communication with HHC(1) (Model: FXW), min. of 250Ω required.

Hazardous locations: (Under an application) SEE TABLE2

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

Damping: Adjustable from HHC or local configurator unit with LCD display.
The time constant is adjustable 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(1).

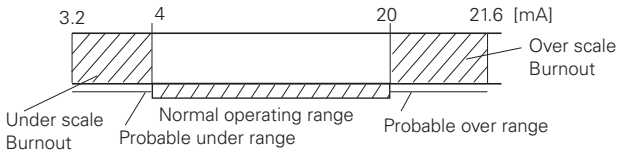
Indication: Analog indicator or 5-digit LCD meter, as specified.

Burnout direction: Selectable from HHC(1)
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 21.6mA from HHC(1)
Note: When the ambient temperature is -30°C or lower: 20.0mA to 20.8mA.

"Output Underscale":
Adjustable within the range 3.2mA to 4.0mA from HHC



Output limits conforming to NAMUR NE43 by order.

Loop-check output:
Transmitter can be configured to provide constant signal 3.2mA through 21.6mA by HHC.

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)
For explosionproof units (flameproof or intrinsic safety), ambient temperature must be within the limits specified by each standard.
Process: −40 to +120°C for silicone fill sensor
−20 to +80°C for fluorinated oil fill sensor
Storage: −40 to +90°C

Humidity limit: 0 to 100% RH

Communication: With HHC(1) (Model FXW, consult Data Sheet No. EDS8-47), 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.	*v*	*v*	*v*	*v*
Model No.	*v*	*v*	*v*	*v*
Serial No. & Software Version	*v*	—	*v*	—
Engineering unit	*v*	*v*	*v*	*v*
Range limit	*v*	—	*v*	—
Measuring range	*v*	*v*	*v*	*v*
Damping	*v*	*v*	*v*	*v*
Output mode	*v*	—	*v*	—
Burnout direction	*v*	*v*	*v*	*v*
Calibration	*v*	*v*	*v*	*v*
Output adjust	—	*v*	—	*v*
Data	*v*	—	*v*	—
Self diagnoses	*v*	—	*v*	—
Printer (In case of FXW with printer option)	*v*	—	—	—
External switch lock	*v*	*v*	*v*	*v*
Transmitter display	*v*	*v*	*v*	*v*
Linearize	*v*	*v*	—	—
Rerange	*v*	*v*	*v*	*v*
Saturate current	*v*	*v*	*v*	*v*
Write protect	*v*	*v*	*v*	*v*
History – Calibration history – Ambient temperature history	 *v* *v*	 *v* —	 *v* *v*	 *v* —

Performance specifications

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

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

Max span below 10000kPa model:
For spans greater than 1/10 of URL:
±0.065% of span or
±0.04% of span (15th digit: H, T)
For spans below 1/10 of URL:

$$\pm \left(0.015+0.05 \frac{0.1 \times \mathrm{URL}}{\mathrm{Span}} \right) \% \text{ of span}$$

Max span 50000kPa model:
For spans greater than 1/10 of URL: ±0.1% of span
For spans below 1/10 of URL:

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

Stability: ±0.1% of upper range limit (URL) for 10 years.

Temperature effect:
Effects per 28°C change between the limits of −40°C and +85°C
Zero shift: $\pm(0.075+0.0125 \frac{\mathrm{URL}}{\mathrm{span}})\%$
Total effect: $\pm(0.095+0.0125 \frac{\mathrm{URL}}{\mathrm{span}})\%$

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: 0.08s (at 23°C)
Dead time: approximately 0.12s
(without electrical damping)

(Note) (1) HHC: Hand Held Communicator

Mounting position effect:

Zero shift, less than 0.1kPa {1m bar} for a 10° tilt in any plane.
No effect on span. This error can be corrected by adjusting Zero.

Dielectric strength:

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

Insulation resistance:

More than 100MW at 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:

1/4-18 NPT or Rc1/4 on 54mm centers, as specified.
Meet DIN 19213

Process-wetted parts material:

Material code (7th digit in "Code symbols")	Process cover	Diaphragm	Wetted sensor body	Vent/drain
V	316L stainless steel	316L stainless steel	316L stainless steel	316L stainless steel
W	316L stainless steel	Hastelloy-C	316L stainless steel	316L stainless steel
J	316L stainless steel	316L stainless steel +Au coating	316L stainless steel	316L stainless steel
H	316L stainless steel	Hastelloy-C	Hastelloy-C lining	316L stainless steel
M	316L stainless steel	Monel	Monel lining	316L stainless steel
T	316L stainless steel	Tantalum	Tantalum lining	316L stainless steel

Remark: Availability of above material design depends on ranges. Refer to "Code symbols".

Non-wetted parts material:

Electronics housing: Low copper die-cast aluminum alloy finished with polyester coating (standard), or 316 stainless steel, as specified.
Bolts and nuts: Carbon steel (standard), 316 stainless steel (660 stainless steel for 50MPa unit).
Fill fluid: Silicone oil (standard) or fluorinated oil
Mounting bracket: 304L or 316L stainless steel

Environmental protection:

IEC IP67 and NEMA 6/6P

Mounting: On 60.5mm (JIS 50A) pipe using mounting bracket, direct wall mounting, or direct process mounting.

Mass {weight}: Transmitter approximately 2.9 to 3.4kg without options.
Add; 0.5kg for mounting bracket
4.5kg for stainless steel housing option

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: The fill fluid is fluorinated oil.

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

Vacuum service: Special silicone oil and filling procedure are applied.
See Fig.1.

Optional tag plate: An extra stainless steel tag with customer tag data is wired to the transmitter.

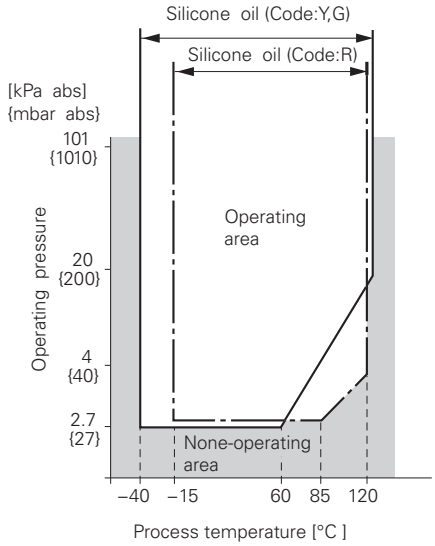


Fig. 1 Relation between process temperature and operating pressure

EU Directive Compliance CE

EMC (2014/30/EU)
EN 61326-1 (Table 2)
EN 55011 (Group 1 Class A)
EN 61326-2-3

ATEX (2014/34/EU)
EN 60079-0
EN 60079-1
EN 60079-11
EN 60079-15
EN 60079-26
EN 60079-31

PED (2014/68/EU)
Article 4.3

RoHS (2011/65/EU)
EN 50581

CODE SYMBOLS

Digit	Description				Note	1 2 3 4 5 6 7 8	9 10 11 12 13	14 15 ← Digit No. of code
4	<Connections>					F K G	0 5	- -
	Process connection	Oval flange screw	Conduit connection	Case type				
	Rc1/4	7/16-20UNF	G1/2	L type		S		
	1/4-18NPT	7/16-20UNF	1/2-14NPT	L type		T		
	1/4-18NPT	M10 (or M12)(*1)	Pg13.5	L type	Note 1	V		
	1/4-18NPT	M10 (or M12)(*1)	M20×1.5	L type	Note 1	W		
	1/4-18NPT	7/16-20UNF	Pg13.5	L type		X		
	Rc1/4	7/16-20UNF	G1/2	T type		5		
	1/4-18NPT	7/16-20UNF	1/2-14NPT	T type		6		
	1/4-18NPT	M10 (or M12)(*1)	Pg13.5	T type	Note 1	7		
	1/4-18NPT	M10 (or M12)(*1)	M20×1.5	T type	Note 1	8		
	1/4-18NPT	7/16-20UNF	Pg13.5	T type		9		
6, 7	<Span and materials>							
	Span limit [kPa]{bar}(*2)	Process cover	Diaphragm	Wetted cell body	Note 2			
	1.3…130 {0.013…1.3}	316L stainless steel	316L stainless steel	316L stainless steel			1V	
		316L stainless steel	Hast. C	SUS316			1W	
		316L stainless steel	316L stainless steel +Au coating	316L stainless steel			1J	
		316L stainless steel	Hast. C	Hast. C lining			1H	
		316L stainless steel	Monel	Monel lining			1M	
		316L stainless steel	Tantalum	Tantalum lining			1T	
	5…500 {0.05…5}	316L stainless steel	316L stainless steel	316L stainless steel			2V	
		316L stainless steel	Hast. C	SUS316			2W	
		316L stainless steel	316L stainless steel +Au coating	316L stainless steel			2J	
		316L stainless steel	Hast. C	Hast. C lining			2H	
		316L stainless steel	Monel	Monel lining			2M	
		316L stainless steel	Tantalum	Tantalum lining			2T	
	30…3000 {0.3…30}	316L stainless steel	316L stainless steel	316L stainless steel			3V	
		316L stainless steel	Hast. C	SUS316			3W	
		316L stainless steel	316L stainless steel +Au coating	316L stainless steel			3J	
		316L stainless steel	Hast. C	Hast. C lining			3H	
		316L stainless steel	Monel	Monel lining			3M	
		316L stainless steel	Tantalum	Tantalum lining			3T	
	100…10000 {1…100}	316L stainless steel	316L stainless steel	316L stainless steel			4V	
		316L stainless steel	Hast. C	SUS316			4W	
		316L stainless steel	316L stainless steel +Au coating	316L stainless steel			4J	
		316L stainless steel	Hast. C	Hast. C lining			4H	
		316L stainless steel	Monel	Monel lining			4M	
		316L stainless steel	Tantalum	Tantalum lining			4T	
	500…50000 {5…500}	316L stainless steel	316L stainless steel	316L stainless steel			5V	
		316L stainless steel	Hast. C	SUS316			5W	
		316L stainless steel	316L stainless steel +Au coating	316L stainless steel			5J	
9	<Indicator and arrester>							
	Indicator			Arrester				
	None			None			A	
	Analog, 0 to 100% linear scale			None			B	
	Analog, custom scale			None			D	
	None			Yes			E	
	Analog, 0 to 100% linear scale			Yes			F	
	Analog, custom scale			Yes			H	
	Digital, 0 to 100% linear scale			None			L	
	Digital, custom scale			None			P	
	Digital, 0 to 100% linear scale			Yes			Q	
	Digital, custom scale			Yes			S	
	Digital, 0 to 100% linear scale (Local configurator unit with LCD display)			None			1	
	Digital, custom scale (Local configurator unit with LCD display)			None			2	
	Digital, 0 to 100% linear scale (Local configurator unit with LCD display)			Yes			4	
	Digital, custom scale (Local configurator unit with LCD display)			Yes			5	

Note 1 : (*1) For 50MPa {500bar} units, M12 is provided rather than M10.
Note 2 : (*2) 100: 1 turn down is possible, but should be used at the span greater than 1/40 of the maximum span for better performance.

Digit	Description	Note	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 ← Digit No. of code F K G 0 5 - - -
10	<Approvals for hazardous locations>		
	None (for ordinary locations)		A
	TIIS, Flameproof (Cable gland seal) (*3)	Note 3	C
	TIIS, Intrinsic safety		G
	FM, Flameproof (or explosionproof) (*4)	Note 4	D
	FM, Intrinsic safety and nonincentive		H
	FM Combined of flameproof and intrinsic safety (*4)	Note 4	V
	ATEX Flameproof (*5)	Note 5	X
	ATEX Intrinsic safety		K
	ATEX Type n		P
	ATEX Combined of flameproof and intrinsic safety (*5)	Note 5	M
	IECEx Scheme, Flameproof (*5)	Note 5	R
	IECEx Scheme, Intrinsic safety		T
	CSA, Flameproof (or explosionproof) (*4)	Note 4	E
	CSA, Intrinsic safety and nonincentive		J
11	<Vent/ drain and mounting bracket>		
	Vent/drain / Mounting bracket		
	Standard / None		A
	Standard / Yes, 304L stainless steel		C
	Standard / Yes, 316L stainless steel		K
	Side / None		D
	Side / Yes, 304L stainless steel		F
	Side / Yes, 316L stainless steel		L
12	<Options>		
	Extra SS tag plate / Stainless steel elec. housing		
	None / None	Note 6	Y
	Yes / None		B
	None (*6) / Yes (*7)	Note 7	C
	Yes (*6) / Yes (*7)	Note 7	E
13	<Special applications and fill fluid>		
	Treatment / Fill fluid		
	Standard / Silicone oil		Y
	Standard / Fluorinated oil		W
	Degreasing / Silicone oil		G
	Oxygen service / Fluorinated oil (7th digit code "V", "W", "J" only)		A
	Chlorine service / Fluorinated oil (7th digit code "H", "T")		D
	Vacuum service / Silicone oil for vacuum use		R
14	<Gasket> <Bolt/nut> (*8, 9)	Note 8,9	
	Teflon / Carbon steel hexagon socket head cap screw/carbon steel nut (M10)		C
	Teflon / 316 stainless steel bolt/nut (M10)		G
	Teflon / Carbon steel hexagon bolt/nut (M12)		H
	Teflon / 660 stainless steel bolt/nut (M10)		J
	Teflon / 660 stainless steel bolt/nut (M12)		K
15	<Other options>		
	None / Instruction manual attached		Y
	High accuracy type (*10) / Instruction manual attached	Note 10	H
	Opposite Vent/Drain Plug Position / Instruction manual attached		C
	High accuracy type (*10) / Instruction manual unattached	Note 10	T
	None / Instruction manual unattached		L
	Opposite Vent/Drain Plug Position / Instruction manual unattached		P

Note3: (*3) Available for 4th digit code "S".
Note4: (*4) Available for 4th digit code "6", "T".
Note5: (*5) Available for 4th digit code "6", "8", "T", "W".
Note6: (*6) Customer tag number can be engraved on standartd stainless steel name plate. If extra tag plate is required, select "Yes".
Note7: (*7) Not available for 4th digit code "5" to "9", and 10th digit code "C".
Note8: (*8) In case of tropical use, select stainless bolts and nuts.

Note9: (*9) See the following table for possible combinations with 6th digits.

14th digits	6th digits	
	FKG*01 - 04	FKG*05
C	○	×
G	○	×
H	×	○
J	(special option)	×
K	×	○

Note10: (*10) Not available for 6th digit code "5".

ACCESSORIES

Oval flanges: (Model FFP, refer to Data Sheet No. EDS6-128)
Converts process connection to 1/2-14 NPT or to Rc1/2; in carbon steel or in 316 stainless steel.

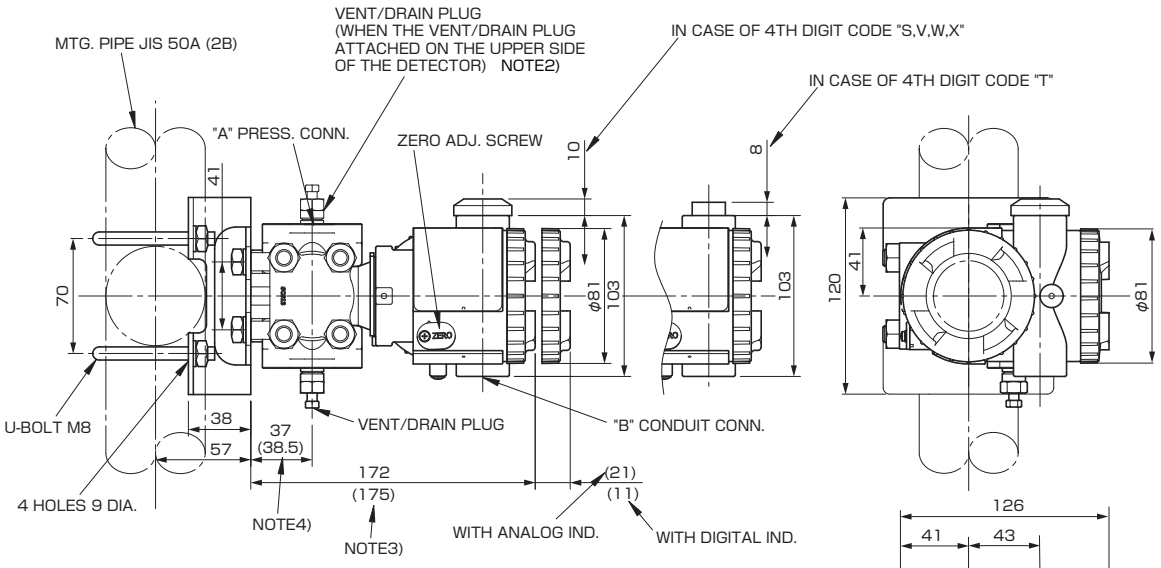
Hand-held communicator:
(Model FXW, refer to Data Sheet No. EDS8-47)

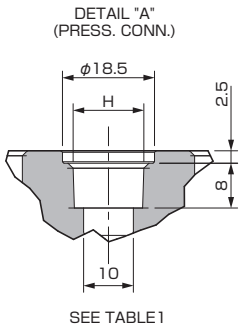
ORDERING INFORMATION

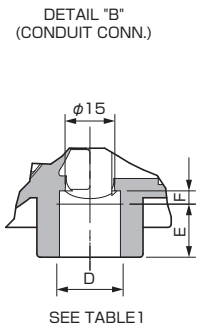
When ordering this instrument, specify.
1. CODE SYMBOLS
2. Measuring range
3. Output orientation (burnout direction) when abnormality is occured in the transmitter.
   Hold/Overscale/Overscale
   Unless otherwise specified, output hold function is supplied.
4. Indication method (indicated value and unit)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

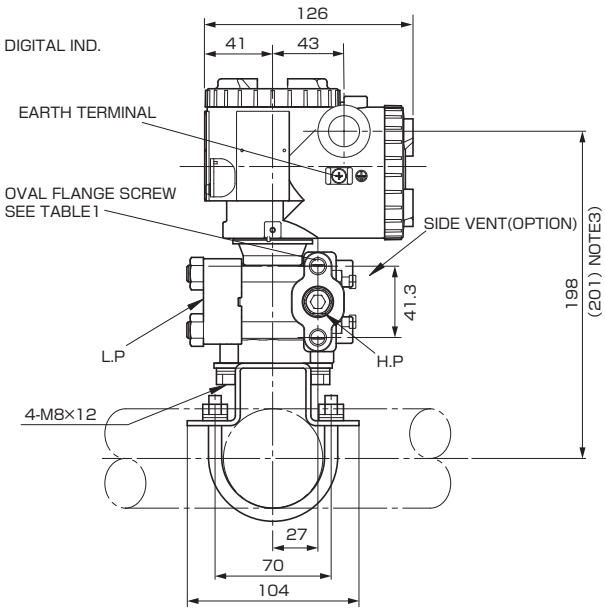
OUTLINE DIAGRAM (Unit:mm)

<AMP. case: L type>





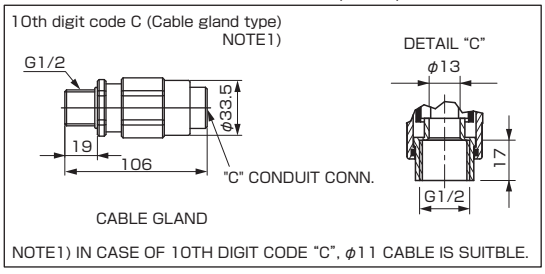




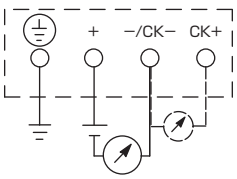
4th digit of the code symbols	Conduit conn.			Press. conn.	Oval frange screw
	D	E	F	H	
S	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH15
T	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH15
V	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH15
W	M20×1.5	16	4	1/4-18NPT	M10 SCREW DEPTH15
X	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH15

TABLE 1

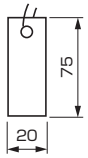
OPTION PARTS FOR FLAMEPROOF OF TIIS (JAPAN)



CONNECTION DIAGRAM

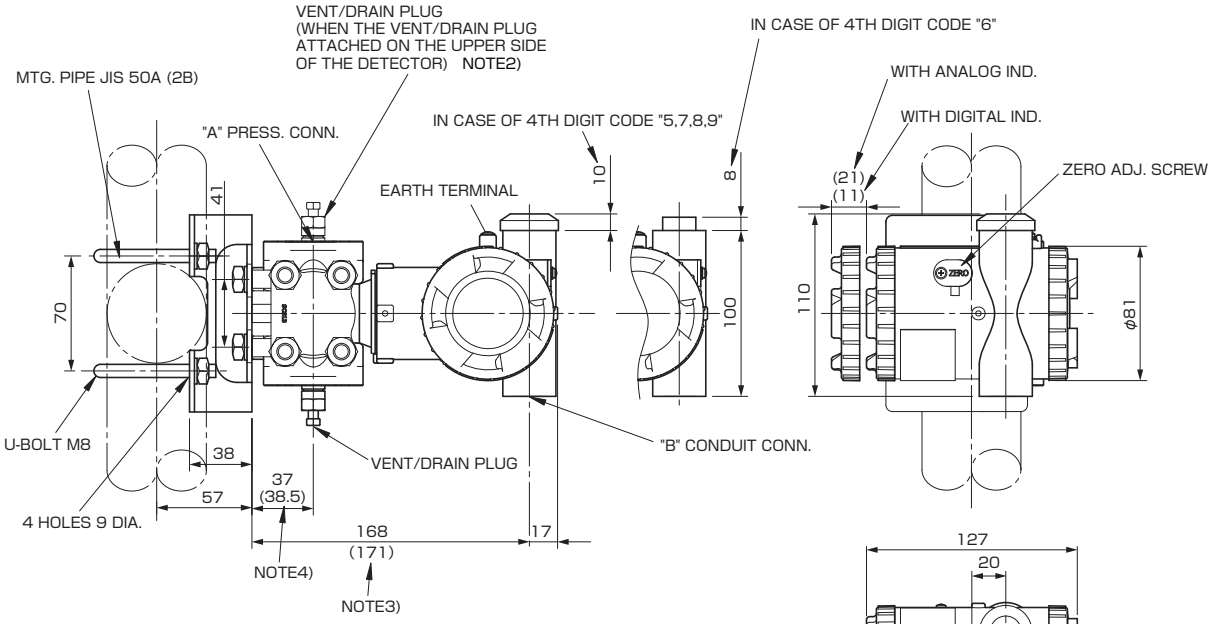


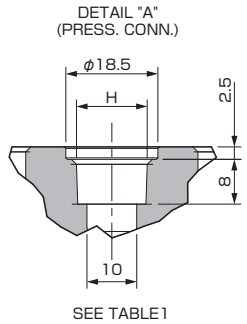
<SS TAG PLATE>

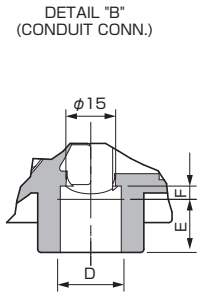


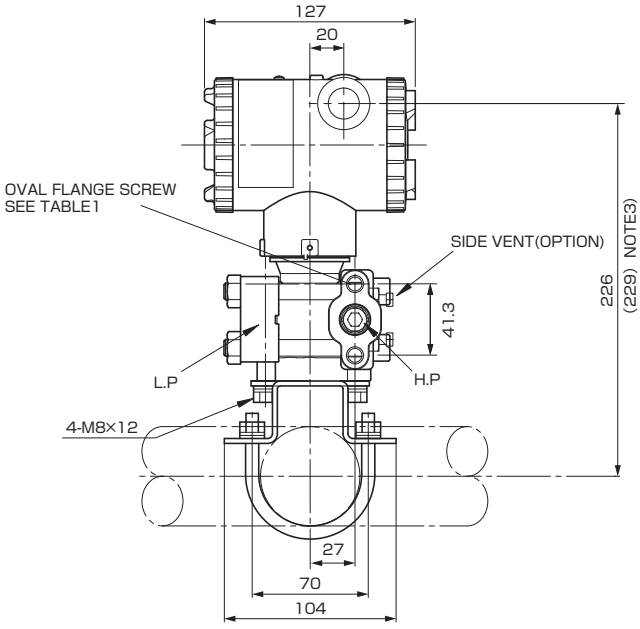
NOTE2) THE PRESSURE CONNECTOR IS LOCATED ON THE DOWN SIDE SURFACE OF THE DETECTOR, WHEN THE VENT/DRAIN PLUG IS ATTACHED ON THE UPPER SIDE OF THE DETECTOR (WHEN THE 15ST DIGIT OF THE CODE SYMBOLS : C,P).
NOTE3) WHEN THE 7TH DIGIT OF THE CODE SYMBOLS "M,T"
NOTE4) WHEN THE 7TH DIGIT OF THE CODE SYMBOLS "M,T"

<AMP. case: T type>





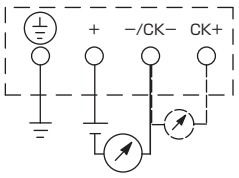




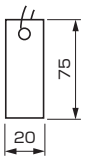
4th digit of the code symbols	Conduit conn.			Press. conn.	Oval frange screw
	D	E	F	H	
5	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH15
6	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH15
7	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH15
8	M20×1.5	16	4	1/4-18NPT	M10 SCREW DEPTH15
9	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH15

TABLE 1

CONNECTION DIAGRAM



<SS TAG PLATE>



NOTE2) THE PRESSURE CONNECTOR IS LOCATED ON THE DOWN SIDE SURFACE OF THE DETECTOR, WHEN THE VENT/DRAIN PLUG IS ATTACHED ON THE UPPER SIDE OF THE DETECTOR (WHEN THE 15ST DIGIT OF THE CODE SYMBOLS : C,P).
NOTE3) WHEN THE 7TH DIGIT OF THE CODE SYMBOLS "M,T"
NOTE4) WHEN THE 7TH DIGIT OF THE CODE SYMBOLS "M,T"

TABLE 2

<table>
<tr><th>Authorities</th><th>Intrinsic safety</th></tr>
<tr><td>ATEX</td><td>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)</td></tr>
<tr><td>Factory Mutual</td><td>Class I II III
Div.1 Groups A, B, C, D, E, F, G
T4 Entity Type 4X
<table>
<tr><th colspan="2">Model code</th><th rowspan="2">Tamb</th></tr>
<tr><th>9th digit</th><th>13th digit</th></tr>
<tr><td>A,B,D</td><td>Y,G,R</td><td>–40°C to +85°C</td></tr>
<tr><td>L,P,1,2</td><td>Y,G,R</td><td>–20°C to +80°C</td></tr>
<tr><td>Q,S,4,5</td><td>Y,G,R</td><td>–20°C to +60°C</td></tr>
<tr><td>E,F,H</td><td>Y,G,R</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>
</table>
Entity Parameters:
Vmax=28V, Imax=94.3mA, Pi=0.66W,
Ci=35.98nF, Li=0.694mH</td></tr>
<tr><td>CSA</td><td>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)</td></tr>
<tr><td>TIIS</td><td>Ex ia IIC T4
Tamb max = +60°C
Entity Parameters:
Ui=28V, Ii=94.3mA, Pi=0.66W,
Ci=40.92nF, Li=0.694mH</td></tr>
<tr><td>IECEx Scheme</td><td>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)</td></tr>
</table>

<table>
<tr><th>Authorities</th><th>Flameproof</th></tr>
<tr><td>ATEX</td><td>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</td></tr>
<tr><td>Factory Mutual</td><td>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</td></tr>
<tr><td>CSA</td><td>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.</td></tr>
<tr><td>TIIS</td><td>Ex do IIB+H_2 T4
Tamb max = +60°C
Maximum process temp. = +120°C</td></tr>
<tr><td>IECEx Scheme</td><td>Ex d IIC T5 IP66/67
Tamb = –40°C to +85°C
Ex d IIC T6 IP66/67
Tamb = –40°C to +65°C</td></tr>
</table>

<table>
<tr><th>Authorities</th><th>Type n
Nonincendive</th></tr>
<tr><td>ATEX</td><td>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</td></tr>
<tr><td>Factory Mutual</td><td>Class I II III
Div.2 Groups A, B, C, D, F, G
T4 Entity Type 4X
<table>
<tr><th colspan="2">Model code</th><th rowspan="2">Tamb</th></tr>
<tr><th>9th digit</th><th>13th digit</th></tr>
<tr><td>A,B,D</td><td>Y,G,R</td><td>–40°C to +85°C</td></tr>
<tr><td>L,P,1,2</td><td>Y,G,R</td><td>–20°C to +80°C</td></tr>
<tr><td>Q,S,4,5</td><td>Y,G,R</td><td>–20°C to +60°C</td></tr>
<tr><td>E,F,H</td><td>Y,G,R</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>
</table></td></tr>
</table>

Information in this catalog is subject to change without notice.
Read the instruction manuals thoroughly before using the products.

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www.fujielectric.com

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