FUJI ELECTRIC

FCX – AX SERIES SMALL FLANGE REMOTE SEAL TYPE
DIFFERENTIAL PRESSURE TRANSMITTER

DATA SHEET FHX, FKX···3

The FCX –AX Series small flange remote seal type differential pressure transmitter accurately measures differential pressure, liquid level or gauge pressure and transmits a proportional 4 to 20mA signal. The trans-mitter 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. Directly connectable to 1-1/2in and 2in flanges
   The transmitter is connectable to 1-1/2in and 2in pipes without a reducer.
2. Flow measurement without impulse piping
   1/2in and 3/4in flange size is also available. This differential pressure transmitter allows connection to 1/2in and 3/4in flanges of a general size for the orifice tap, which eliminates the need of using a impulse piping. Problems with the impulse piping, such as clogging, leaks or corrosion can be solved. In addition, the following process connection is also available.
   Screw connection 1/2-14NPT, 3/4-14NPT, Rc1/2, Rc3/4
3. Minimum environmental influence
   The "Advanced Floating Cell" design which protects the pressure sensor against changes in temperature, static pressure, and overpressure substantially reduces total measurement error in actual field applications.
4. Replaceable Communication Module
   Fuji micro-electronics manufacturing technology offers replaceable communication module that makes FCX–AX transmitter very unique in design. In case of change in communication protocl all that needs to be done is just replace the module and the transmitter gets upgraded to the new version.
5. Fuji/HART bilingual communication module
   The communication module is "bilingual" to speak both Fuji proprietary protocol and HART. Any HART compatible devices can communicate with FCX–AX series trans-mitters.
6. Application flexibility
   Various options that render the FCX–AX suitable for almost any process applications include:
   – Analog indicator at either the electronics side or terminal side
   – Full range of hazardous area approvals
   – Built-in RFI filter and lightning arrester
   – 4 1/2 -digits LCD meter
   – Stainless steel electronics housing
   – Wide selection of materials
   – High temperature, high vacuum seals
7. Programmable output Linearization Function
   In addition to Linear and Square Root, output signal can be freely programmable.
   (Up to 14 compensated points at approximation.)
   (Available for amplifier unit from version 24 and FXW(HHC) version 5.3.)
8. Burnout current flexibility (Under Scale: 3.2 to 3.8mA, Over Scale: 20.8 to 21.6mA)
   Burnout signal level is adjustable using Model FXW hand Held Communicator (HHC) to comply with NAMUR NE43.
   (Available for amplifier unit from version 24 and FXW (HHC) version 5.3.)
9. 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

Type:
Model FHX: 4 to 20mA
Model FKX: 4 to 20mA with digital signal

Service: Liquid, gas, or vapour

Static pressure, span, and range limit:

Type	Static pressure	Span limit [kPa] (m bar) Min. FHX	Min. FKX	Max. FHX/FKX	Range limit [kPa] {m bar}
F□X□□5	Up tp flange rating	13 { 130}	3 { 30}	130 { 1300}	+/– 130 {+/– 1300}
F□X□□6	Up tp flange rating	50 { 500}	12.5 {125}	500 { 5000}	+/– 500 {+/– 5000}

– Maximum static pressure limit for screw connction type: 4.2MPa

– Lower limit of static pressure (vacuum limit),
  Silicone fill sensor: See Fig. 1
  Fluorinated fill sensor: Atmospheric pressure
– The maximum span of each sensor can be converted to different units using factors as below.
  1MPa=10^3kPa=10bar=10.19716kgf/cm^2=
  145.0377psi
  1kPa=10mbar=101.976mmH_2O=4.01463H_2O

Overrage limit: To maximum static pressure limit

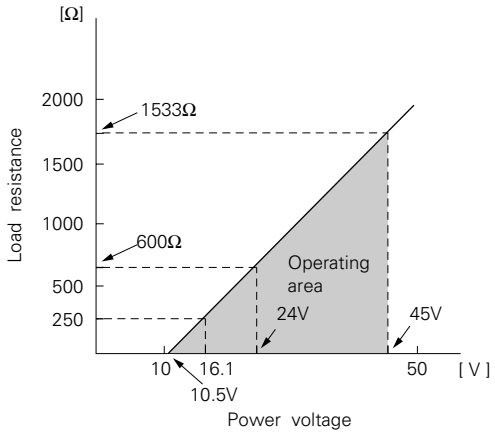
Output signal:

Model FHX: 4 to 20mA DC 2-wire, linear signal

Model FKX: 4 to 20mA DC (linear or square root) 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.

Load limitations: see figure below



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

Hazardous locations: (Approval pending)

Authorities	Flameproof	Intrinsic safety	Type N Nonincendive
BASEEFA	Ex ds IIC T5, T6	EEx ia IIC T4, T5	Ex N II T5
Factory Mutual	Class I II III Div. 1 Groups B thru. G	Class I II III Div. 1 Groups A thru. F	Class I II III Div. 2 Groups A thru. G
RIIS	Exds IIB + H_2 T4	—	—

Zero/span adjustment:

Model FHX: Zero is adjustable from the external adjustment screw.
The adjustment screw can also function to adjust span when MODE SWITCH (located on the electronics unit) is in the span mode. INHIBIT mode to disable the adjustment screw is also available.

Model FKX: Zero and span are adjustable from the HHC. Zero is also adjustable externally from the adjustment screw.

Damping: Adjustable electrical damping.

Model FHX: The time constant is adjustable to 0, 0.3, 1.2, 4.8, or 19.2 seconds.

Model FKX: The time constant is adjustable between 0 to 38.4 seconds.

Zero elevation/suppression:
–100% to +100% of URL

Normal/reverse action:

Model FHX: Selectable by moving a jumper pin located on the electronics unit.

Model FKX: Selectable from HHC

Indication: Analog indicator or 4 ½ digit LCD meter, as specified.

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

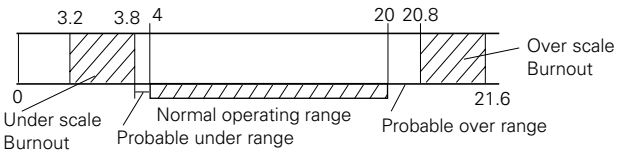
Model FHX: Unless otherwise specified in the order, the transmitter will be shipped in "Output Hold" mode.
(Output signal just before failure happens is maintained.)

Model FKX: Selectable from HHC

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

"Output Overscale":
Approx. 21.6mA
(Adjustable within the range 20.8mA to 21.6mA from HHC)

"Output Underscale":
Approx. 3.8mA
(Adjustable within the range 3.2mA to 3.8mA from HHC)



Loop-check output:

Model FHX: Transmitter can output constant signal of 4mA, 12mA, or 20mA if MODE SWITCH is set to the loop check mode.

Model FKX: Transmitter can be configured to provide constant signal 3.8mA through 21.6mA by HHC.

Temperature limit:

Ambient: – 15 to + 65°C
(– 15 to + 60°C for arrester option)
(– 10 to + 60°C for fluorinated oil fill transmitter)
(– 10 to + 60°C for silicone oil "H", "S")
For explosionproof units (flameproof or intrinsic safety), ambient temperature must be within the limits specified in each standard.

Process:

Fill fluid	13th digit of "Code symbols"	Process temperature	Lower limit of static press.
Fluorinated oil	W, A and D	– 20 to 120°C	Atmospheric pressure
Silicone oil	H	0 to 250°C	
	Y and G	– 40 to 120°C	2.7kPa abs {20mmHg abs}
	S	0 to 250°C	

Storage: – 40 to +70°C

Humidity limit: 0 to 100% RH

Communication: (Model FKX only)
With HHC (Model FXW, consult Data Sheet No. EDS8-47), following information can be remotely displayed or reconfigured.

Items	Display	Set
Tag No.	v	v
Model No.	v	v
Serial No.	v	—
Engineering unit	v	v
Range limit	v	—
Measuring range	v	v
Damping	v	v
Output mode	v	v
Burnout direction	v	v
Adjustment	v	v
Output adjust	—	v
Data	v	—
Self diagnoses	v	—
Printer	—	—
External switch lock	v	v
Transmitter display(*)	v	v
Linearise (**)	v	v
Rerange (**)	v	v

Notes: (*) HHC's version must be more than 5.0 (or FXW □□□□1–□2), to use this function.
(**) HHC's version must be more than 5.3, and Amplifier unit version 24.

Programmable output linearization function:
In smart version, output signal can be characterized with "14 points linear approximation function" from HHC.

Performance specifications

Accuracy rating: (including linearity, hysteresis, and repeatability)
(Standard)
For spans greater than 1/10 of URL: 0.25% of span
For spans below 1/10 of URL (Model FKX only):

$$\pm \left(0.17+0.08 \ \frac{0.1 \times \mathrm{URL}}{\mathrm{Span}} \right) \% \text{ of span}$$

(Option)
For spans greater than 1/10 of URL: 0.1% of span
For spans below 1/10 of URL (Model FKX only):

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

Linearity: 0.1% of calibrated span

Stability: ±0.2% of upper range limit (URL) for 24 months

Temperature effect:
Effects per 28°C change between the limits of – 15°C and +65°C
Zero shift: ±0.5%/28°C
(x equal to 1/2 URL or more)

$$\text{Zero shift; } \pm \left(0.5 \frac{\mathrm{URL}}{2 \times x}\right) \%/28°C$$

(x less than 1/2 URL)
Total shift; ±0.75%/28°C
(x less than 1/2 URL or more)

$$\text{Total shift; } \pm \left(0.25 + 0.5 \frac{\mathrm{URL}}{2 \times x}\right) \%/28°C$$

(x less than 1/2 URL)

High performance type (option)
Zero shift: ±0.5%/28°C
(x equal to 1/6.5 URL or more)

$$\text{Zero shift; } \pm \left(0.5 \frac{\mathrm{URL}}{6.5 \times x}\right) \%/28°C$$

(x less than 1/6.5 URL)
Total shift; ±0.75%/28°C
(x equal to 1/6.5 URL or more)

$$\text{Total shift; } \pm \left(0.25 + 0.5 \frac{\mathrm{URL}}{6.5 \times x}\right) \%/28°C$$

(x less than 1/6.5 URL)

Where, x: Calibrated span
URL: Maximum span (Upper Range Limit)

Note 1: Condition: Capillary length: 3m max.
In case the capillary length is 5m, the performance becomes 1.5 times worse than above.
Note 2: In case the 7th code (material code) is other than W, A, B, C or D, the performance becomes 2.5 times worse than above.
Note 3: Above specifications are based on the conditions that flanges and sensor unit are at the same temperature and in the same level. If temperature is different at flanges, capillary or sensor unit, output variation may increase.

Static pressure effect:
Zero shift; 0.2% of URL/1MPa (10 bar)
2.5 times the zero shift for material code, "H", "M" and "T"
Span shift: $-0.2^{+0.2}_{-0.1}$ % of calibrated span for flange nominal pressure

Overrange effect: Zero shift; 0.3% of URL for flange nominal pressure
2.5 times the effects for material code. "H", "M" and "T"

Supply voltage effect:
Less than 0.05% fo calibrated span per 10V

RFI effect: Less than 0.2% of URL for the frequencies of 20 to 1000MHz and field strength 30 V/m when electronics covers on.

Step response: (without electrical damping)

Time constant (*)	Dead time
1.7 s	Approx. 0.3 s

Note: * Capillary length: 1.5m, Ambient temperature: 23°C

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

Insulation resistance:
More than 100MΩ/500V DC.

Turn-on time: 4 sec.

Internal resistance for external field indicator:
12Ω or less

Physical specifications

Electrical connections:
G1/2, 1/2-14 NPT, Pg13.5, or M20 x 1.5 conduit, as specified.

Process connections:
JIS
10K, 20K, 30K - 40, 50A
10K, 20K, 30K - 15, 20A (with Adapter)
ANSI/JPI
150LB, 300LB -1½", 2"
150LB, 300LB - 1/2", 3/4" (with Adapter)
Screw connection (with Adapter);
Rc1/2, Rc3/4, 1/2 - 14NPT, 3/4 - 14NPT

Diaphragm extension:
0, 50, 100, 150, or 200mm as specified. (See model code. Extended diaphragm is available only with 316L stainless steel diaphragm)

Process-wetted parts material:
Diaphragm: 316L stainless steel, Hastelloy-C, Monel or Tantalum
Flange face: 316 stainless steel, Hastelloy-C lining
Monel lining, or Tantalum lining
Extension: 316 stainless steel

Non-wetted parts material:
Electronics housing: Low copper die-cast aluminum alloy (standard), finished with polyester coating, or 316 stainless steel (SCSI4 par JIS G51), as specified.
Capillary: In case of 13th code "Y. W. G. A. D", PVC armored stainless steel.
In case of 13th code "H. S", stainless steel armored stainless steel.
Mounting flange: (option) 304 stainless steel or carbon steel
Fill fluid: Silicone oil (standard) or fluorinated oil (Daifloil)
Mounting bracket: Carbon steel with epoxy coating or 304stainless steel, as specified

Environmental protection:
IEC IP67 and NEMA 4X

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

Mass {weight}: Transmitter approximately 15kg without options.
Add; 0.5kg for mounting bracket
0.8kg for indicator option
4.5kg for stainless steel housing option
1.5kg per 50mm extension of diaphragm

Optional features

Indicator: A plug-in analog indicator (1.5% accuracy) can be housed in the electronics compartment or in the terminal box of the housing.
An optional 4½ digits LCD meter is also available.

Arrester: A built-in arrester protects the electronics from lightning surges.
Lighting surge immunity is 4kV (1.2 x 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 service: Special silicone oil and filling procedure are applied.
See below figure.

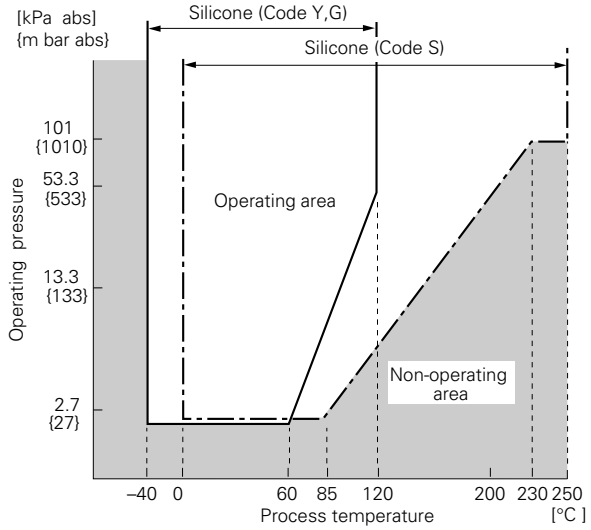


Fig. 1 Relation between process temperature and operating pressure

Customer tag: A stainless steel tag for customer tag data is wired to the transmitter.

Coating of cell: Cell's surface is finished with epoxy/polyurethane double coating. Specify if environment is extremely corrosive.

ACCESSORIES

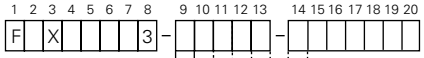
Hand-held communicator:
(Model FXW, refer to Data Sheet No. EDS 8-47)

Communication module: (standard for model FKX)
By adding communication module, remote setting function becomes available for model FHX.
Remark: When the communication module is connected, the operation mode of external zero/span adjustment screw is limited to zero adjustment only.

CODE SYMBOLS

1 2 3	4	5	6	7	8	9 10 11 12 13	14 15 16 17 18 19 20	Description
F X					3	–	– 0	
								Type
F H X								4 to 20mA, Output type
F K X								4 to 20mA with digital signal, Output type
	S							**Conduit connection <4th digit>**
	T							G 1/2
	V							1/2 - 14NPT
	W							Pg 13.5
								M20 X 1.5
		0						**Flange <5th digit>**
		1						304 stainless steel: JIS 10K 40A
		2						JIS 10K 50A
		3						JIS 20K 40A
		4						JIS 20K 50A
		5						JIS 30K 40A
		A						JIS 30K 50A
		B						ANSI/JPI 150LB 1 1/2"
		C						ANSI/JPI 150LB 2"
		D						ANSI/JPI 300LB 1 1/2"
		G						ANSI/JPI 300LB 2"
		H						Carbon steel: JIS 10K 40A
		J						JIS 10K 50A
		K						JIS 20K 40A
		L						JIS 20K 50A
		M						JIS 30K 40A
		Q						JIS 30K 50A
		R						ANSI/JPI 150LB 1 1/2"
		S						ANSI/JPI 150LB 2"
		T						ANSI/JPI 300LB 1 1/2"
		W						ANSI/JPI 300LB 2"
		X						None (Wafer type): 40A, 1 1/2B; 50A, 2B
		Y						—— : Direct mounting adapter connection (* 1)
			5					**Span limit [kPa] {m bar} <6th digit>**
			6					FHX: 13···130 (130···1300); 50···500 (500···5000) — FKX: 3···130 (30···1300); 12.5···500 (125···5000)
				W				**Material/diapharagm extension <7th digit>**
				A				Diaphragm: 316L stainless steel — Flange face: 316 stainless steel — Diaphragm extension (mm): 0, 50, 100, 150, 200 (*2)
				B				
				C				
				D				
				H				Hastelloy-C / Hastelloy-C / 0
				M				Monel / Monel / 0
				T				Tantalum / Tantalum / 0

Note 1: Direct mounting adapter type is specified at 16th to 20th digit.
Direct mounting adapter is available only for 7th digit code "W".
2: Diaphragm extension is available only for 2" (50A) flanges.



	Description
	Indicator and arrester <9th digit>
	Indicator / Arrester
A	None / None
B	Analog, 0 to 100% linear scale / None
C	Analog, 0 to 100% sq. root scale / None
D	Analog, custom scale / None
J	Analog, double scale / None
E	None / Yes
F	Analog, 0 to 100% linear scale / Yes
G	Analog, 0 to 100% sq. root scale / Yes
H	Analog, custom scale / Yes
K	Analog, double scale / Yes
L	Digital, 0 to 100% / None
P	Digital, custom scale / None (Model FKX only)
M	Digital, 0 to 100% square root / None
Q	Digital, 0 to 100% / Yes
S	Digital, custom scale / Yes (Model FKX only)
N	Digital, 0 to 100% square root / Yes
	Approvals for hazardous locations <10th digit> (Approval pending)
A	None (for ordinary locations)
B	JIS, Flameproof (Conduit seal) (Available for 4th digit code "S")
C	JIS, Flameproof (Cable gland seal) (Available for 4th digit code "S")
D	FM, Flameproof (or explosionproof) (Available for 4th digit code "T")
M	BASEEFA, Flameproof (Conduit seal)
N	BASEEFA, Flameproof (Cable gland seal) (Conduit connection G 1/2 only)
H	FM, Intrinsic safety and Nonincendive
K	CENELEC, Intrinsic safety
P	CENELEC, Intrinsic safety and BASEEFA, Type N
	Capillary and mounting bracket <11th digit>
	mounting bracket / Capillary
A	Carbon steel / 1.5m
B	3m
G	5m
D	Stainless steel / 1.5m
E	3m
L	5m
	Stainless steel parts <12th digit>
	Stainless steel tag plate / Stainless steel elec. housing / Coating of cell
Y	None / None / None
B	Yes / None / None
C	None / Yes / None
E	Yes / Yes / None
M	None / None / Yes
N	Yes / None / Yes
P	None / Yes / Yes
Q	Yes / Yes / Yes
	Treatment/Fill fluid <13th digit>
	Treatment / Fill fluid
Y	None / Silicone oil (for general use)
W	None / Fluorinated oil
G	Degreasing / Silicone oil
A	Oxygen service / Fluorinated oil (7th digit code "W", "A", "B", "C" and "D")
D	Chlorine service / Fluorinated oil (7th digit code "H" and "T")
H	High temp. 250°C / Silicone oil
S	High temp. and vacuum (250°C) / Silicone oil } (7th digit code "W", "A", "B", "C" and "D")
	Teflon membrane <14th digit>
Y	None
C	Yes (7th digit code "W", "H", "M", and "T")

Odering information

1. When odering this instrument, specify the output orientation (burnout direction) in case of abnormality in the transmitter. Unless otherwise specified, the output hold function is supplied.
2. When odering FKX, specify the output mode (linear or square root output). Unless otherwise specified, linear output is supplied.
3. When specifying the digital indicator/actual scale (codes P and S on 9th digit), specify the method indication (indicated value and unit).

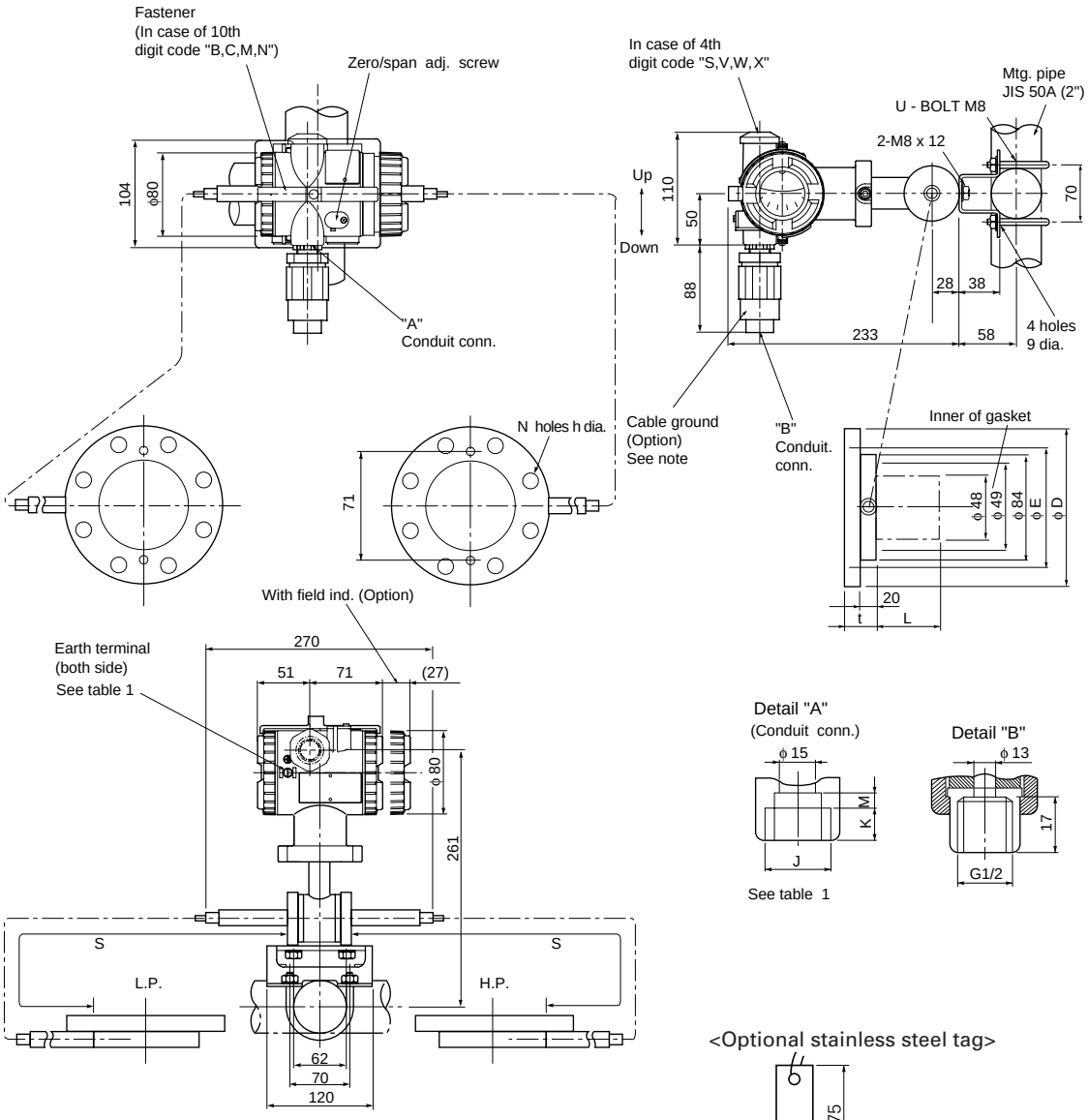
Specifications of Direct Mounting Adapter {for 15, 20A (1/2, 3/4") connection} and others

Note 1. When odering the instrument with direct mounting adapter, specify "Y" in the 5th digit of Code Symbol, and specify 16th digit to 20th digits.
When odering the instrument without direct mounting adapter, nothing should be filled in the 16th to 20th digits.
2. Unless otherwise described in the specifications, leave the 21st digit blank.

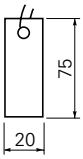
1 2 3 4 5 6 7 8	9 10 11 12 13	14 15 16 17 18 19 20	Description
F X		0	
		1 1	**Process connection (direct mounting adapter) <16th to 17 digit>** JIS 10K 15A
		1 2	JIS 10K 20A
		2 1	JIS 20K 15A
		2 2	JIS 20K 20A
		3 1	JIS 30K 15A
		3 2	JIS 30K 20A
		1 H	ANSI/JPI 150LB 1/2"
		1 T	ANSI/JPI 150LB 3/4"
		2 H	ANSI/JPI 300LB 1/2"
		2 T	ANSI/JPI 300LB 3/4"
		S R	Screw connection Rc1/2
		S 2	Screw connection Rc3/4
		S N	Screw connection Rc1/2 - 14NPT
		S T	Screw connection Rc3/4 - 14NPT
		W	**Material (direct mounting adapter) <18th digit>** Adapter: 316 Stainless Steel; Bolts/nuts (* 1): Cr-Mo steel/carbon steel
		G	**Vent/drain (for direct mounting adapter) <19 th digit>** Standard
		N	Long type
		1	**Gasket (for direct mounting adapter) <20th digit>** Standard (Teflon) (Only Y, W, G, A and D can be specified on 13th digit).
		2	For high temperature (spiral gasket) (Only H and S can be specified on 13th digit).

Note 1 For connection of transmitter receiving pressure unit and direct mounting adapter

OUTLINE DIAGRAM (Unit:mm)

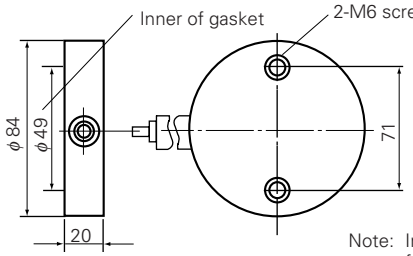


<Optional stainless steel tag>



5th digit of code symbols	ϕD	ϕE	t	N-ϕh	Flange
0, G	140	105	36	4-19	JIS-10K-40A
1, H	155	120	36	4-19	JIS-10K-50A
2, J	140	105	38	4-19	JIS-20K-40A
3, K	155	120	38	8-19	JIS-20K-50A
4, L	160	120	42	4-23	JIS-30K-40A
5, M	165	130	42	8-19	JIS-30K-50A
A, Q	127	98.4	37.5	4-16	ANSI/JPI-150LB-1 1/2"
B, R	152	120.6	39.5	4-20	ANSI/JPI-150LB-2"
C, S	156	114.3	41	4-23	ANSI/JPI-300LB-1 1/2"
D, T	165	127	42.5	8-20	ANSI/JPI-300LB-2"

Note *: Cable gland is supplied in case of flameproof packing type.
ø11 cable is suitable.



<Wafer type>

4th digit of Code symbols	Conduit conn.			Earth terminal
	J	K	M	
S	G1/2	17	8	No. 8-32UNC
T	1/2-14NPT	16	5	M4
V	Pg13.5	8	4.5	M4
W	M20x1.5	16	5	M4

Table 1

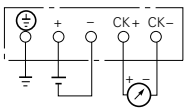
7th digit of Code symbols	L	Mass approx. [kg]
W, H, M, T	0	14 to 19.5
A	50	15 to 30.5
B	100	15.5 to 31
C	150	16 to 31.5
D	200	16.5 to 32

11th digit of code symbols	Capillary length S [mm]
A,D	1500
B, E	3000
G, L	5000

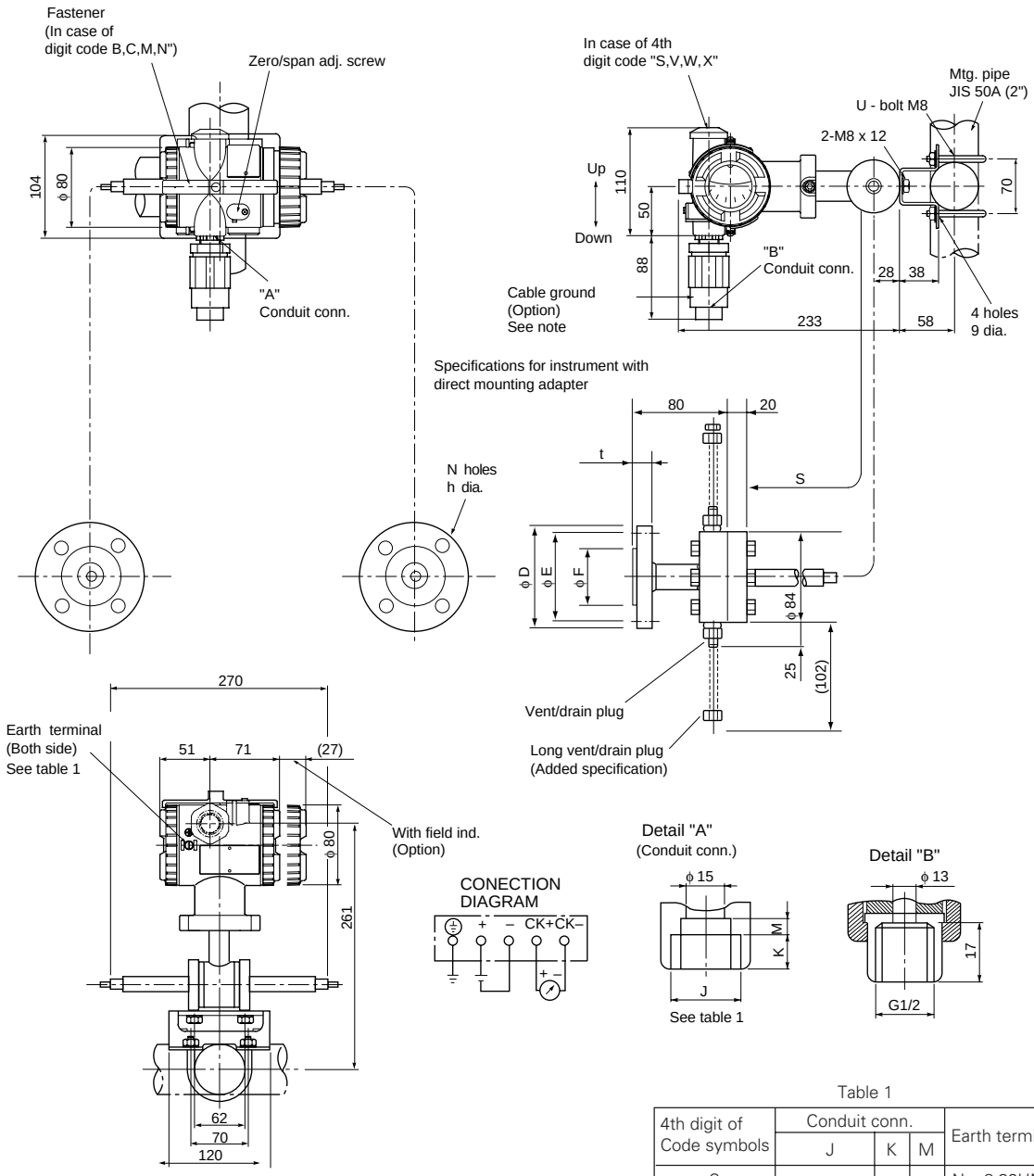
F H K X S T V W □□□3

Note: In case of water type, flange is excluded from the scope of supply.
Mount flange, referring to the view.

CONNECTION DIAGRAM



OUTLINE DIAGRAM (Unit:mm)



16th digit of code symbols	17th digit of code symbols	ϕ D	ϕ E	ϕ -F	t	N-ϕ h	Flange
1	1	95	70	51	12	4-15	JIS-10K-15A
1	2	100	75	56	14	4-15	JIS-10K-20A
2	1	95	70	51	14	4-15	JIS-20K-15A
2	2	100	75	56	16	4-15	JIS-20K-20A
3	1	115	80	55	18	4-19	JIS-30K-15A
3	2	120	85	60	18	4-19	JIS-30K-20A
1	H	89	60.3	34.9	11.5	4-16	ANSI/JPI-150LB - 1/2"
1	T	98	69.9	42.9	13	4-16	ANSI/JPI-150LB - 3/4"
2	H	95	66.7	34.9	14.5	4-16	ANSI/JPI-300LB - 1/2"
2	T	117	82.5	42.9	16	4-20	ANSI/JPI-300LB - 3/4"

Note *: Cable gland is supplied in case of flameproof packing type.
ø11 cable is suitable.

Table 1

4th digit of Code symbols	Conduit conn.			Earth terminal
	J	K	M	
S	G1/2	17	8	No. 8-32UNC
T	1/2-14NPT	16	5	M4
V	Pg13.5	8	4.5	M4
W	M20x1.5	16	5	M4

11th digit of code symbols	Capillary length S [mm]
A,D	1500
B, E	3000
G, L	5000

F [H/K] X [S/T/V/W] Y □□3 - □□□□□-□□ [1/2/3] □□□□

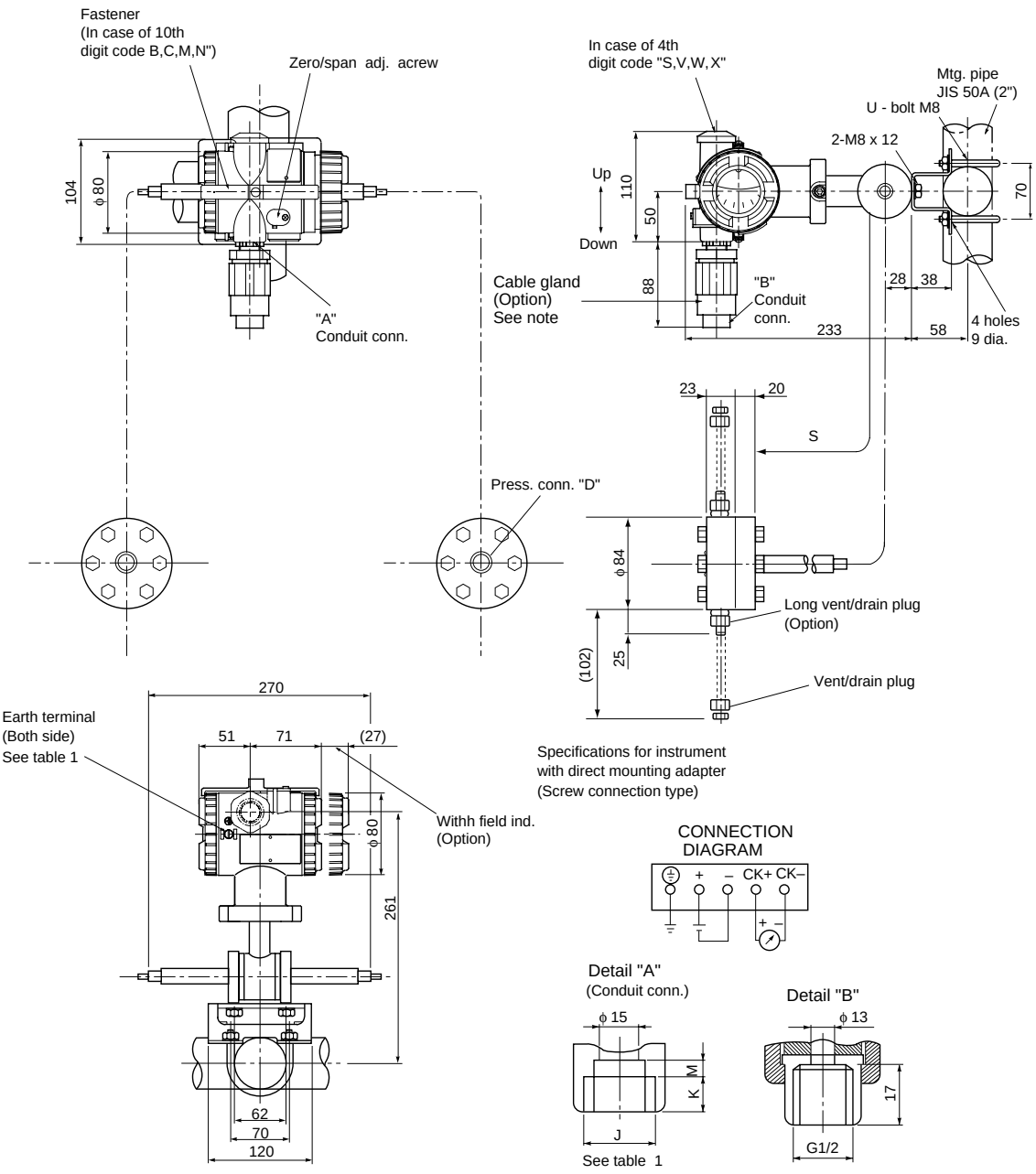


Table 1

4th digit of Code symbols	Conduit conn.			Earth terminal
	J	K	M	
S	G1/2	17	8	No. 8-32UNC
T	1/2-14NPT	16	5	M4
V	Pg13.5	8	4.5	M4
W	M20x1.5	16	5	M4

11th digit of code symbols	Capillary length S [mm]
A,D	1500
B, E	3000
G, L	5000

16th digit of code symbols	17th digit of code symbols	Press. conn. "D"
S	R	Rc 1/2
S	N	1/2 - 14NPT
S	2	Rc 3/4
S	T	3/4 - 14NPT

Note *: Cable gland is supplied in case of flameproof packing type.
ø11 cable is suitable.

F [H K] X [S T V W] Y □ □ 3 - □ □ □ □ □ - □ □ S □ □ □ □

The product conforms to the requirements of the Electromagnetic compatibility Directive 89/336/EEC as detailed within the technical construction file number TN510412. The applicable standards used to demonstrate compliance are :-

EMI (Emission) EN50081-1 : 1992

Test item	Frequency range	Basic standard
Applicable Electro-magnetic Radiation Disturbance	30-1000MHz	EN55022 Class B

EMS (Immunity) EN50082-1 : 1992

No.	Test item	Test specification	Basic standard	Performance criteria
1	Electrostatic discharge	8kV (Air)	IEC 801-2:1984	B
2	Radio-frequency electromagnetic field.	27-500MHz 3V/m (Unmodulated)	IEC 801-3:1984	A
3	Fast transients common mode	0.5kV, 5/50 (Tr/Th) ns 5kHz Rep.	IEC 801-4:1988	B

"LVD - The transmitter is not covered by the requirements of the LVD standard."

Fuji Electric Co.,Ltd.

Head office
11-2 Osaki 1-chome, Shinagawa-ku, Tokyo, 141-0032 Japan
Phone: 81-3-5435-7111
http://www. fujielectric.co.jp/eng/sg/KEISOKU/welcome.htm

Fuji Electric Instruments Co.,Ltd.

Sales Div.
International Sales Dept.
No.1, Fuji-machi, Hino-city, Tokyo 191-8502 Japan
Phone: 81-42-585-6201, 6202
Fax: 81-42-585-6187, 6189