

Diaphragm seal section:

Process Flange

JIS S25C, JIS SUS304, or JIS SUS316

Capillary tube

JIS SUS316

Protection tube

JIS SUS304 PVC-sheathed
(Max. operating temperature of PVC, 100°C (212°F))

Fill fluid

See table 1.

Weight

Flush type: 16.1 kg (35.5 lbs)
(3-inch ANSI Class150 flange, capillary length 5 m; without integral indicator and mounting bracket.)
Extended type: 21.7 kg (47.9 lbs)
(4-inch ANSI Class150 flange, extension length (X₂)=100 mm, capillary length 5 m; without integral indicator and mounting bracket.)
Combination type: 18.9 kg (41.7 lbs)
(4-inch and 3-inch ANSI Class150 flange, extension length (X₂)=100 mm, capillary length 5 m; without integral indicator and mounting bracket.)

Add 1.5kg (3.3lb) for Amplifier housing code 2.

< Related Instruments > “◇”

Power Distributor: Refer to GS 01B04T01-02E or GS 01B04T02-02E
BRAIN TERMINAL: Refer to GS 01C00A11-00E

< Reference >

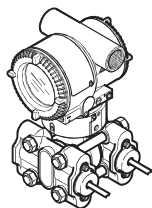
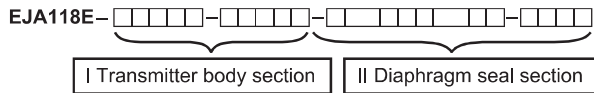
- *DP Harp EJA* is a registered trademark of Yokogawa Electric Corporation.
 - FieldMate; Trademark of Yokogawa Electric Corporation.
 - Teflon; Trademark of E.I. DuPont de Nemours & Co.
 - Hastelloy; Trademark of Haynes International Inc.
 - HART; Trademark of the HART Communication Foundation.
 - FOUNDATION Fieldbus; Trademark of Fieldbus Foundation.
 - PROFIBUS; Registered trademark of Profibus Nutzerorganisation e.v., Karlsruhe, Germany.
- Other company names and product names used in this material are registered trademarks or trademarks of their respective owners.

MODEL AND SUFFIX CODES

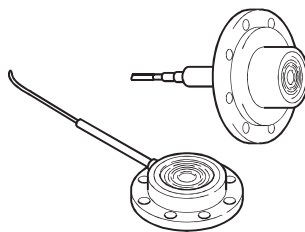
● Instruction

The model and suffix codes for EJA118E consist of two parts; a transmitter body section (I) and a diaphragm seal section (II). This specification sheet introduces these two parts separately. The transmitter body section is shown in one table, and the diaphragm seal section specifications are listed according to the process connection style.

First select the model and suffix codes of transmitter body section and then continue on one of the diaphragm seal section.



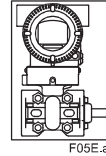
See Page 7



- Flush type
 - Flange size: 3-inch, 2-inch ... See Page 8
 - Flange size: 1 1/2-inch ... See Page 10
- Extended type ... See Page 11
- Combination type ... See Page 13

F04E.ai

I. Transmitter body section



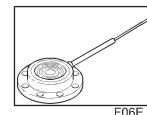
Model	Suffix Codes	Description
EJA118E	Diaphragm sealed differential pressure transmitter
Output signal	-D -J -F -G	4 to 20 mA DC with digital communication (BRAIN protocol) 4 to 20 mA DC with digital communication (HART 5/HART 7 protocol)*1 Digital communication (FOUNDATION Fieldbus protocol, refer to GS 01C31T02-01EN) Digital communication (PROFIBUS PA protocol, refer to GS 01C31T04-01EN)
Measurement span (capsule)	M H	2.5 to 100 kPa (10 to 400 inH ₂ O) 25 to 500 kPa (100 to 2000 inH ₂ O)
—	S	Always S
—	C	Always C
Coverflange bolts and nuts material	J G C	B7 carbon steel 316L SST 660 SST
Installation	-9	Horizontal piping type and left side high pressure
Amplifier housing	1 3 2	Cast aluminum alloy Cast aluminum alloy with corrosion resistance properties*2 ASTM CF-8M stainless steel*3
Electrical connection	0 2 4 5 7 9 A C D	G 1/2 female, one electrical connection without blind plugs 1/2 NPT female, two electrical connections without blind plugs M20 female, two electrical connections without blind plugs G 1/2 female, two electrical connections with a blind plug *4 1/2 NPT female, two electrical connections with a blind plug *4 M20 female, two electrical connections with a blind plug *4 G 1/2 female, two electrical connections and a 316 SST blind plug 1/2 NPT female, two electrical connections and a 316 SST blind plug M20 female, two electrical connections and a 316 SST blind plug
Integral indicator	D E N	Digital indicator*5 Digital indicator with the range setting switch*6 None
Mounting bracket	B J N	304 SST 2-inch pipe mounting, flat type (for horizontal piping) 316 SST 2-inch pipe mounting, flat type (for horizontal piping) None
Diaphragm seal section		— <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Continued on diaphragm seal section (II)

The "▶" marks indicate the most typical selection for each specification.
 *1: HART 5 or HART 7 is selectable. Specify upon ordering.
 *2: Not applicable for electrical connection code 0, 5, 7, 9 and A. Content rate of copper in the material is 0.03% or less and content rate of iron is 0.15% or less.
 *3: Not applicable for electrical connection code 0, 5, 7 and 9.
 *4: Material of a blind plug is aluminum alloy or 304 SST
 *5: Not applicable for output signal code G.
 *6: Not applicable for output signal code F.

II. Diaphragm seal section (Flush type)


- Process connection size: 3-inch (80mm) / 2-inch (50mm)

EJA118E-□□□□-□□□□-**W**□³/₂□□□□-□□□□



Model	Suffix codes	Description
EJA118E	-□□□□-□□□□	Transmitter body section (I)
Process connection style	-W	Flush type
Flange rating	J1 JIS 10K J2 JIS 20K J4 JIS 40K A1 ANSI class 150 A2 ANSI class 300 A4 ANSI class 600 D2 DIN PN10/16 D4 DIN PN25/40 D5 DIN PN64 P1 JPI class 150 P2 JPI class 300 P4 JPI class 600	
Process connection size (Process flange size)	3 3-inch (80 mm) 2 2-inch (50 mm)	
Flange material	A JIS S25C B 304 SST *11 C 316 SST *11	
Gasket contact surface*1	1 Serration (for ANSI flange with wetted parts material SW only) 2 Flat (no serration)	
Wetted parts material*10	SW [Diaphragm] 316L SST HW [Others] 316L SST TW Hastelloy C-276*9# UW Titanium [Others] 316L SST Hastelloy C-276*9# Tantalum *7 Titanium (for 3-inch process flange only)	
Flushing connection ring*2	0 [Ring] None 1 Straight type 2 Straight type	[Vent/Drain plugs] R 1/4 connections [Material] 316 SST # 1/4 NPT connections 316 SST #
Extension	0 None	
Fill fluid*5	-A For general use (silicone oil) ³ -B For general use (silicone oil) -C For high temperature use (silicone oil) ⁴ *7 -D For oil-prohibited use (fluorinated oil) ⁵ -E For low temperature use (ethylene glycol) -1 High temp. and high vacuum use (Silicone oil) ³ *12 -2 High temp. and high vacuum use (Silicone oil) ⁴ *7*12 -4 High vacuum use (Silicone oil) ¹²	[Process temperature] [Ambient temperature] -10 to 250°C -10 to 60°C -30 to 180°C -15 to 60°C 10 to 310°C 10 to 60°C -20 to 120°C -10 to 60°C -50 to 100°C -40 to 60°C -10 to 250°C -10 to 60°C(50°C)*13 10 to 310°C 10 to 60°C(50°C)*13 -10 to 100°C -10 to 60°C(50°C)*13
Capillary connection	A	Side of diaphragm seal unit
-	2	Always 2
Capillary length*6	1 ... 1 m 2 ... 2 m 3 ... 3 m 4 ... 4 m 5 ... 5 m	6 6 m 7 7 m 8 8 m 9 9 m A 10 m
Option codes		<input type="checkbox"/> Optional specification

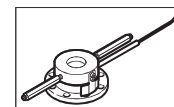
The "▶" marks indicate the most typical selection for each specification.
 Example: EJA118E-DMSCG-912EN-WA13B1SW00-BA25/□

-
- *1: See table 3 'Gasket contact surface' on page 5.
 - *2: When specified flushing connection ring code 1 or 2, exclusive gaskets are provided for transmitter side.
 - *3: In case of wetted parts material code TW (Tantalum), the process temperature limit is -10 to 200°C.
 - *4: Wetted parts material code TW (Tantalum) cannot be applied.
 - *5: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K1 or K5.
 - *6: In case of wetted parts material code HW (Hastelloy C) and TW (Tantalum) for 2-inch process flange, specify capillary length from 1 to 5m.
 - *7: Not applicable for flashing connection ring code 1 and 2.
 - *8: Not applicable for gasket contact surface code 1.
 - *9: Hastelloy C-276 or N10276.
 - *10:  Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and hightemperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
 - *11: Forged version of the material may be used.
 - *12: Not applicable for wetted parts material code UW.
 - *13: The upper ambient temperature limit is 50°(122°F) when specifying process connection size code 2 (2-inch).
- The #marks indicate the construction materials conform to NACE material recommendations per MR0175/ISO 15156.
Please refer to the latest standards for details. Selected materials also conform to NACE MR0103.

II. Diaphragm seal section (Flush type)

● **Process connection size: 1 1/2-inch (40 mm)**

EJA118E-□□□□□-□□□□□-W 8 □□□□□□□□□□



F07E.ai

Model	Suffix codes	Description
EJA118E	-□□□□□-□□□□□	Transmitter body section (I)
Process connection style	-W.	Flush type
Flange rating	J1 J2 J4 A1 A2 A4 P1 P2 P4	JIS 10K JIS 20K JIS 40K ANSI class 150 ANSI class 300 ANSI class 600 JPI class 150 JPI class 300 JPI class 600
Process connection size (Process flange size)	8	1 1/2-inch (40 mm)
Flange material	▶ A B C	JIS S25C 304 SST *6 316 SST *6
Gasket contact surface*1	1 2	Serration (for ANSI flange only) Flat (no serration)
Wetted parts material*5	SW	[Diaphragm] [Others] 316L SST 316L SST
Flushing connection ring*2	3 4	[Ring] [Vent/Drain plugs] [Material] Reducer type R 1/4 connections*4 316 SST # Reducer type 1/4 NPT connections 316 SST #
Extension	0	None
Fill fluid	▶ -A -B -D -E -1 -4	[Process temperature] [Ambient temperature] For general use (silicone oil) -10 to 250°C -10 to 60°C For general use (silicone oil) -30 to 180°C -15 to 60°C For oil-prohibited use (fluorinated oil)*3 -20 to 120°C -10 to 60°C For low temperature use (ethylene glycol) -50 to 100°C -40 to 60°C High temp. and high vacuum use (Silicone oil) -10 to 250°C -10 to 50°C High vacuum use (Silicone oil) -10 to 100°C -10 to 50°C
Capillary connection	A 2	Side of diaphragm seal unit Always 2
Capillary length	1... 2... 3... 4... 5... 6... 7... 8... 9... A	1 m 6 m 2 m 7 m 3 m 8 m 4 m 9 m 5 m A 10 m
Option codes		/□ Optional specification

The "▶" marks indicate the most typical selection for each specification.

Example: EJA118E-DMSCG-912EN-WA18B1SW40-BA25/□

*1: See table 3 'Gasket contact surface' on page 5.

*2: When specified flushing connection ring code 3 or 4, exclusive gaskets are provided for transmitter side.

*3: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K1 or K5.

*4: Not applicable for gasket contact surface code 1.

*5: ⚠ Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.

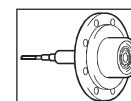
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.

*6: Forged version of the material may be used.

II. Diaphragm seal section (Extended type)

- Process connection size: 4-inch (100 mm) / 3-inch (80 mm)

EJA118E-□□□□-□□□□-E 4 3 □□□□-□□□□



F08E.ai

Model	Suffix codes	Description
EJA118E	-□□□□-□□□□	Transmitter body section (I)
Process connection style	-E	Extended type
Flange rating	J1 JIS 10K J2 JIS 20K A1 ANSI class 150 A2 ANSI class 300 P1 JPI class 150 P2 JPI class 300 D2 DIN PN10/16 D4 DIN PN25/40	
Process connection size (Process flange size)	4 4-inch (100 mm) 3 3-inch (80 mm)	
Flange material	A JIS S25C B 304 SST *5 C 316 SST *5	
Gasket contact surface*1	1 Serration (for ANSI flange only) 2 Flat (no serration)	
Wetted parts material*4	SE [Diaphragm] [Pipe] [Others] 316L SST 316 SST 316 SST	
Flushing connection ring	0	None
Extension	2 Length (X2) = 50 mm 4 Length (X2) = 100 mm 6 Length (X2) = 150 mm	
Fill fluid	-A For general use (silicone oil) [Process temperature] [Ambient temperature] -10 to 250°C -10 to 60°C -B For general use (silicone oil) -30 to 180°C -15 to 60°C -C For high temperature use (silicone oil) 10 to 310°C 10 to 60°C -D For oil-prohibited use (fluorinated oil)*2 -20 to 120°C -10 to 60°C -E For low temperature use (ethylene glycol) -50 to 100°C -40 to 60°C -1 High temp. and high vacuum use (Silicone oil) -10 to 250°C -10 to 60°C(50°C)*6 -2 High temp. and high vacuum use (Silicone oil) 10 to 310°C 10 to 60°C(50°C)*6 -4 High vacuum use (Silicone oil) -10 to 100°C -10 to 60°C(50°C)*6	
Capillary connection	B	Back of diaphragm seal unit
—	2	Always 2
Capillary length*3	1 ... 1 m 2 ... 2 m 3 ... 3 m 4 ... 4 m 5 ... 5 m 6 6 m 7 7 m 8 8 m 9 9 m A 10 m	
Option codes		/□ Optional specification

The "►" marks indicate the most typical selection for each specification.

Example: EJA118E-DMSCG-912EN-EA14B1SE02-BB25/□

*1: See table 3 'Gasket contact surface' on page 5.

*2: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K1 or K5.

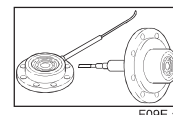
*3: The specified capillary length includes the extension length (X2) and the flange thickness (t).

-
- *4: ⚠ Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high-temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
 - *5: Forged version of the material may be used.
 - *6: The upper ambient temperature limit is 50°(122°F) when specifying process connection size code 3 (3-inch).

II. Diaphragm seal section (Combination type)

- Process connection size: High pressure side; 4-inch (100 mm) • • • Extended type
Low pressure side; 3-inch (80 mm) • • • Flush type

EJA118E-□□□□-□□□□-Y □ W □□□□□□-□□□□□



Model	Suffix codes	Description
EJA118E	-□□□□-□□□□	Transmitter body section (I)
Process connection style	-Y	Combination type (Extended and Flush)
Flange rating	J1 J2 A1 A2 P1 P2 D2 D4	JIS 10K JIS 20K ANSI class 150 ANSI class 300 JPI class 150 JPI class 300 DIN PN10/16 DIN PN25/40
Process connection size (Process flange size)	W	High pressure side 4-inch (100 mm) Low pressure side 3-inch (80 mm)
Flange material	A B C	JIS S25C 304 SST *5 316 SST *5
Gasket contact surface*1	1 2	Serration (for ANSI flange only) Flat (no serration)
Wetted parts material*4	SY	[Diaphragm] [Pipe] [Others] High pressure side: 316L SST 316 SST 316 SST Low pressure side: 316L SST — 316L SST
Flushing connection ring	0	None
Extension	1 3 5	Length (X2) = 50 mm Length (X2) = 100 mm Length (X2) = 150 mm
Fill fluid	-A -B -C -D -E -1 -2 -4	[Process temperature] [Ambient temperature] For general use (silicone oil) -10 to 250°C -10 to 60°C For general use (silicone oil) -30 to 180°C -15 to 60°C For high temperature use (silicone oil) 10 to 310°C 10 to 60°C For oil-prohibited use (fluorinated oil)*2 -20 to 120°C -10 to 60°C For low temperature use (ethylene glycol) -50 to 100°C -40 to 60°C High temp. and high vacuum use (Silicone oil) -10 to 250°C -10 to 60°C High temp. and high vacuum use (Silicone oil) 10 to 310°C 10 to 60°C High vacuum use (Silicone oil) -10 to 100°C -10 to 60°C
Capillary connection	C	High pressure side: Back of diaphragm seal unit Low pressure side: Side of diaphragm seal unit
—	2	Always 2
Capillary length*3	1 ... 2 ... 3 ... 4 ... 5 ...	1 m 2 m 3 m 4 m 5 m
Option codes	□	Optional specification

The “►” marks indicate the most typical selection for each specification.

Example: EJA118E-DMSCG-912EN-YA1WB1SY01-BC25/□

*1: See table 3 ‘Gasket contact surface’ on page 5.

*2: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K1 or K5.

*3: The specified capillary length of high pressure side (extended side) includes the extension length (X2) and the flange thickness (t).

-
- *4: ⚠ Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and hightemperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
- *5: Forged version of the material may be used.