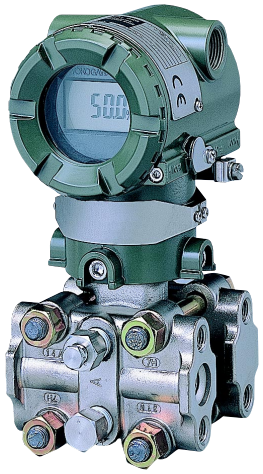
General Specifications

Model EJA430A
Gauge Pressure Transmitter

DPharp

GS 01C21E01-00E

The high performance gauge pressure transmitter model EJA430A can be used to measure liquid, gas, or steam pressure. It outputs a 4 to 20 mA DC signal corresponding to the measured gauge pressure. Model EJA430A also features remote setup and monitoring through communications with the BRAIN™ terminal and CENTUM CS™ or μXL™ or HART® 275 host.



■ STANDARD SPECIFICATIONS

Refer to GS 01C22T02-00E for Fieldbus communication type marked with "◇."

□ PERFORMANCE SPECIFICATIONS

Zero-based calibrated span, linear output, wetted parts material code 'S' and silicone oil.

Reference Accuracy of Calibrated Span

(including the effects of zero-based linearity, hysteresis, and repeatability)

±0.075 % of Span

For spans below X,

$$\pm[0.025 + 0.05 \frac{X}{Span}] \text{ \% of Span}$$

where X equals:

Capsule	X MPa {psi}
A	0.3 {43}
B	1.4 {200}

Ambient Temperature Effects

Total Effects per 28 °C (50 °F) Change

±[0.084 % Span + 0.017 % URL]

Stability

±0.1 % of URL per 60 months

Power Supply Effects "◇"

±0.005 % per Volt (from 21.6 to 32 V DC, 350 Ω)

□ FUNCTIONAL SPECIFICATIONS

Span & Range Limits

Measurement Span and Range		MPa	psi (/D1)	bar (/D3)	kgf/cm²(/D4)
A	Span	0.03 to 3	4.3 to 430	0.3 to 30	0.3 to 30
	Range	-0.1 to 3	-15 to 430	-1 to 30	-1 to 30
B	Span	0.14 to 14	20 to 2000	1.4 to 140	1.4 to 140
	Range	-0.1 to 14	-15 to 2000	-1 to 140	-1 to 140

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URL is defined as the Upper Range Limit from the table above.

Zero Adjustment Limits

Zero can be fully elevated or suppressed, within the Lower and Upper Range Limits of the capsule.

External Zero Adjustment "◇"

External zero is continuously adjustable with 0.01 % incremental resolution of span. Span may be adjusted locally using the digital indicator with range switch.

Mounting Position Effect

Rotation in diaphragm plane has no effect. Tilting up to 90 ° will cause zero shift up to 0.4 kPa {1.6 inH_2O} which can be corrected by the zero adjustment.

Output "◇"

Two wire 4 to 20 mA DC output with digital communications. BRAIN or HART FSK protocol are superimposed on the 4 to 20 mA signal.

Failure Alarm

Output status at CPU failure and hardware error;

Up-scale: 110%, 21.6 mA DC or more(standard)
Down-scale: -5%, 3.2 mA DC or less
-2.5%, 3.6 mA DC or less (Optional code /F1)

Note: Applicable for Output signal code D and E

Damping Time Constant (1st order)

The sum of the amplifier and capsule damping time constant must be used for the overall time constant. Amp damping time constant is adjustable from 0.2 to 64 seconds.

Capsule (Silicone Oil)	A	B
Time Constant (approx. sec)	0.2	0.2

Ambient Temperature Limits

(approval codes may affect limits)

-40 to 85 °C (-40 to 185 °F)
-30 to 80 °C (-22 to 176 °F) with LCD Display

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Process Temperature Limits
(approval codes may affect limits)
-40 to 120 °C (-40 to 248 °F)

Ambient Humidity Limits
5 to 100 % RH @ 40 °C (104 °F)

Maximum Overpressure

Capsule	Pressure
A	4.5 MPa {645 psig}
B	21 MPa {3000 psig}

Working Pressure Limits (Silicone Oil)

Maximum Pressure Limit

Capsule	Pressure
A	3 MPa {430 psig}
B	14 MPa {2000 psig}

Minimum Pressure Limit
See graph below

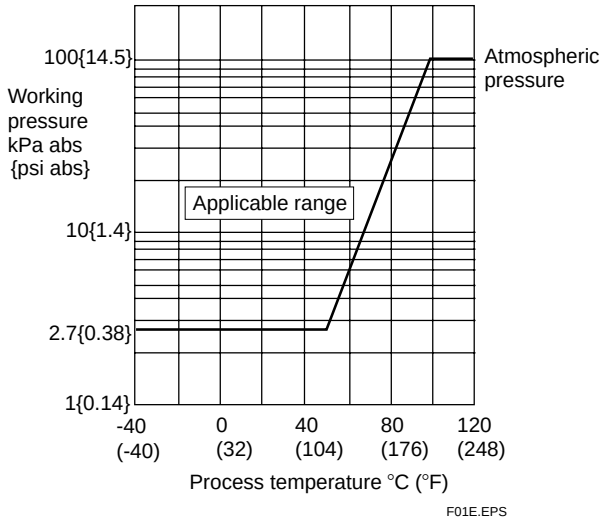

Figure 1. Working Pressure and Process Temperature

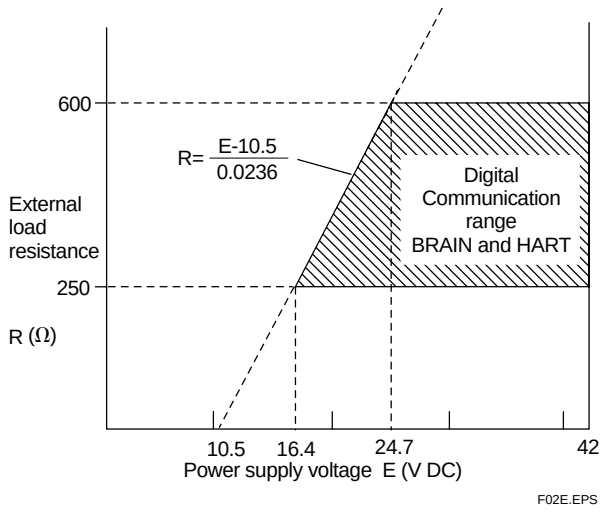

Figure 2. Relationship Between Power Supply Voltage and External Load Resistance

Supply & Load Requirements
(Safety approvals can affect electrical requirements)
With 24 V DC supply, up to a 570 Ω load can be used. See Figure 2.

Supply Voltage "◇"
10.5 to 42 V DC for general use and flameproof type
10.5 to 32 V DC for lightning protector (Optional code /A)
10.5 to 30 V DC for intrinsically safe, Type n, nonincendive, or non-sparking type
Minimum voltage limited at 16.4 V DC for digital communications, BRAIN and HART

Load (Output signal code D and E)
0 to 1335 Ω for operation
250 to 600 Ω for digital communication

EMC Conformity Standards CE , N200
EN61326, AS/NZS CISPR11

European Pressure Equipment Directive 97/23/EC
Sound Engineering Practice

Communication Requirements "◇"

BRAIN

Communication Distance
Up to 2 km (1.25 miles) when using CEV polyethylene-insulated PVC-sheathed cables. Communication distance varies depending on type of cable used.

Load Capacitance
0.22 μF or less (see note)

Load Inductance
3.3 mH or less (see note)

Input Impedance of communicating device
10 kΩ or more at 2.4 kHz.

Note : For general-use and Flameproof type.
For Intrinsically safe type, please refer to 'OPTIONAL SPECIFICATIONS.'

HART

Communication Distance
Up to 1.5 km (1 mile) when using multiple twisted pair cables. Communication distance varies depending on type of cable used.

Use the following formula to determine cable length for specific applications:

$$L=\frac{65\times10^6}{(R\times C)}-\frac{(C_f+10{,}000)}{C}$$

Where:
L = length in meters or feet
R = resistance in Ω (including barrier resistance)
C = cable capacitance in pF/m or pF/ft
C_f = maximum shunt capacitance of receiving devices in pF/m or pF/ft

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□ PHYSICAL SPECIFICATIONS

Wetted Parts Materials

Diaphragm, Cover flange, Process connector, and Vent/Drain Plug
Refer to 'MODEL AND SUFFIX CODE.'

Capsule Gasket
For wetted parts material code S, Teflon-coated SUS316L.
For wetted parts material code other than S, PTFE(Teflon).

Process Connector Gasket
PTFE Teflon
Fluorinated rubber for Optional code /N2 and /N3

Non-wetted Parts Materials

Bolting
SCM435, SUS630, or SUH660

Housing
Low copper cast-aluminum alloy with polyurethane paint (Munsell 0.6GY3.1/2.0)

Degrees of Protection
IP67, NEMA4X, JIS C0920 immersion proof

Cover O-rings
Buna-N

Name plate and tag
SUS304

Fill Fluid
Silicone, Fluorinated oil (option)

Weight
3.9 kg (8.6 lbs.) without integral indicator, mounting bracket, and process connector.

Connections
Refer to the model code to specify the process and electrical connection type.
Process Connection of Cover Flange:
DIN 19213 with 7/16 inch × 20 unf female thread.

< Settings When Shipped > "◇"

Tag Number	As specified in order *1
Output Mode	'Linear'
Display Mode	'Linear'
Operation Mode	'Normal' unless otherwise specified in order
Damping Time Constant	'2 sec.'
Calibration Range Lower Range Value	As specified in order
Calibration Range Higher Range Value	As specified in order
Calibration Range Units	Selected from mmH_2O, mmAq, mmWG, mmHg, Pa, hPa, kPa, MPa, mbar, bar, gf/cm^2, kgf/cm^2, inH_2O, inHg, ftH_2O, or psi. (Only one unit can be specified)

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*1: Up to 16 alphanumeric characters for BRAIN and 8 characters for HART including '-' and '.' will be entered in the amplifier memory. If specified Tag includes other characters than above, it will not be entered in the amplifier memory.

< Related Instruments > "◇"

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

< Reference >

1. Teflon; Trademark of E.I. DuPont de Nemours & Co.
2. Hastelloy; Trademark of Haynes International Inc.
3. Monel; Trademark of Inco Alloys International, Inc.
4. HART; Trademark of the HART Communication Foundation.
5. FOUNDATION; Trademark of Fieldbus Foundation.

Material Cross Reference Table

SUS316L	AISI 316L
SUS316	AISI 316
SUS304	AISI 304
S25C	AISI 1025
SCM435	AISI 4137
SUS630	ASTM630
SCS14A	ASTM CF-8M

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6. Other company names and product names used in this material are registered trademarks or trademarks of their respective owners.

< Specification Conformance >

The model EJA430A maintains a specification conformance to at least 3 σ.

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■MODEL AND SUFFIX CODES

Model	Suffix Codes	Description		
EJA430A	· ·	Gauge pressure transmitter		
Output Signal	**-D** ·	4 to 20 mA DC with digital communication (BRAIN protocol)		
	-E ·	4 to 20 mA DC with digital communication (HART protocol, refer to GS 01C22T01-00E)		
	-F ·	Digital communication (FOUNDATION Fieldbus protocol, refer to GS 01C22T02-00E)		
Measurement span(capsule)	**A** ·	0.03 to 3 MPa {0.3 to 30 kgf/cm^2} {4.3 to 430 psi} {0.3 to 30 bar}		
	B ·	0.14 to 14 MPa {1.4 to 140 kgf/cm^2} {20 to 2000 psi} {1.4 to 140 bar}		
Wetted parts material*9		[Body]*1	[Capsule]	[Vent plug]
	S ·	SCS14A	SUS316L *2	SUS316
	H ·	SCS14A	Hastelloy C-276 *3*10	SUS316
	M ·	SCS14A	Monel*3	SUS316
	T ·	SCS14A	Tantalum *3	SUS316
	A ·	Hastelloy C-276 equivalent*4	Hastelloy C-276 *3*10	Hastelloy C-276*10
	D ·	Hastelloy C-276 equivalent*4	Tantalum *3	Hastelloy C-276*10
	B ·	Monel equivalent*5	Monel*3	Monel
Process connection	**0** ·	without process connector (Rc1/4 female on the cover flanges)		
	1 ·	with Rc1/4 female process connector		
	2 ·	with Rc1/2 female process connector		
	3 ·	with 1/4 NPT female process connector		
	4 ·	with 1/2 NPT female process connector		
☆	**5** ·	without process connector (1/4 NPT female on the cover flanges)		
Bolts and nuts material			[Maximum working pressure]	
			(A capsule)	(B capsule)
☆	**A** ·	SCM435	3 MPa {30 kgf/cm^2}	14 MPa {140 kgf/cm^2}
	B ·	SUS630	3 MPa {30 kgf/cm^2}	14 MPa {140 kgf/cm^2}
	C ·	SUH660	3 MPa {30 kgf/cm^2}	14 MPa {140 kgf/cm^2}
Installation	**-2** ·	Vertical impulse piping type, right side high pressure, process connector upside*6		
	-3 ·	Vertical impulse piping type, right side high pressure, process connector downside*6		
	-6 ·	Vertical impulse piping type, left side high pressure, process connector upside*6		
	-7 ·	Vertical impulse piping type, left side high pressure, process connector downside*6		
	-8 ·	Horizontal impulse piping type, right side high pressure*7		
☆	**-9** ·	Horizontal impulse piping type, left side high pressure*7		
Electrical connection	**0** ·	G1/2 female, one electrical connection		
☆	**2** ·	1/2 NPT female, two electrical connections without blind plug		
	3 ·	Pg 13.5 female, two electrical connections without blind plug		
	4 ·	M20 female, two electrical connections without blind plug		
	5 ·	G1/2 female, two electrical connections and a blind plug		
	7 ·	1/2 NPT female, two electrical connections and a blind plug		
	8 ·	Pg 13.5 female, two electrical connections and a blind plug		
	9 ·	M20 female, two electrical connections and a blind plug		
Integral indicator	**D** ·	Digital indicator		
	E ·	Digital indicator with the range setting switch*8		
☆	**N** ·	(None)		
Mounting bracket ☆	**A** ·	SECC Carbon steel	2-inch pipe mounting (flat type)	
	B ·	SUS304	2-inch pipe mounting (flat type)	
	C ·	SECC Carbon steel	2-inch pipe mounting (L type)	
	D ·	SUS304	2-inch pipe mounting (L type)	
	N ·	(None)		
Optional codes		/□ Optional specification		

T04E.EPS

The '☆' marks indicate the most typical selection for each specification. Example: EJA430A-DAS5A-92NA/□

*1: Indicates high pressure side cover flange and process connector material. Material of low pressure side cover flange (open to atmosphere) is SCS14A.
*2: Diaphragm material is Hastelloy C-276 or ASTM N10276. Indicated is other capsule wetted parts material.
*3: Indicates diaphragm and other capsule wetted parts material.
*4: Indicated material is equivalent to ASTM CW-12MW.
*5: Indicated material is equivalent to ASTM M35-2.
*6: If necessary, specify Mounting bracket code C or D.
*7: If necessary, specify Mounting bracket code A or B.

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*8: Not applicable for Output signal code F.

*9: ⚠ 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.

*10: Hastelloy C-276 or ASTM N10276.

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■OPTIONAL SPECIFICATIONS (For Explosion Protected types "◇")

For FOUNDATION Fieldbus explosion protected type, see GS 01C22T02-00E.

Item	Description	Code
Factory Mutual (FM)	FM Explosionproof Approval *1 *3 Applicable standard: FM3600, FM3615, FM3810, ANSI/NEMA250 Explosionproof for Class I, Division 1, Groups B, C and D Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G Hazardous (classified) locations, indoors and outdoors (NEMA 4X) Temperature class: T6 Amb. Temp.: –40 to 60°C (–40 to 140°F)	**FF1**
	FM Intrinsically safe Approval *1 *3 Applicable standard: FM3600, FM3610, FM3611, FM3810, ANSI/NEMA250 Intrinsically Safe for Class I, Division 1, Groups A, B, C & D, Class II, Division 1, Groups E, F & G and Class III, Division 1 Hazardous Locations. Nonincendive for Class I, Division 2, Groups A, B, C & D, Class II, Division. 2, Groups E, F & G, and Class III, Division 1 Hazardous Locations. Enclosure: "NEMA 4X", Temp. Class: T4, Amb. Temp.: –40 to 60°C (–40 to 140°F) Intrinsically Safe Apparatus Parameters [Groups A, B, C, D, E, F and G] Vmax=30 V, Imax=165 mA, Pmax=0.9 W, Ci=22.5 nF, Li=730 μH [Groups C, D, E, F and G] Vmax=30 V, Imax=225 mA, Pmax=0.9 W, Ci=22.5 nF, Li=730 μH	**FS1**
	Combined FF1 and FS1 *1 *3	**FU1**
CENELEC ATEX	CENELEC ATEX (KEMA) Flameproof Approval *2 *3 Applicable standard: EN50014, EN50018 Certificate: KEMA 02ATEX2148 II 2G EExd IIC T4, T5, T6 Amb. Temp.: T5; –40 to 80°C (–40 to 176°F), T4 and T6; –40 to 75°C (–40 to 167°F) Max. process Temp.: T4; 120°C (248°F), T5; 100°C (212°F), T6; 85°C (185°F)	**KF2**
	CENELEC ATEX (KEMA) Intrinsically safe Approval *2 *3 Applicable standard: EN50014, EN50020, EN50284 Certificate: KEMA 02ATEX1030X II 1G EEx ia IIC T4, Amb. Temp.: –40 to 60°C (–40 to 140°F) Ui=30 V, Ii=165 mA, Pi=0.9 W, Ci=22.5 nF, Li=730 μH	**KS2**
	Combined KF2, KS2 and Type n *2 *3 Type n Applicable standard: EN60079-15 Referential standard: IEC60079-0, IEC60079-11 II 3G Ex nL IIC T4, Amb. Temp.: –40 to 60°C (–40 to 140°F) Ui=30 V DC, Ci=22.5 nF, Li=730 μH Dust Applicable standard: EN50281-1-1 II 1D maximum surface temperature T65°C (149°F) {Tamb.: 40°C (104°F)}, T85°C (185°F) {Tamb.: 60°C (140°F)}, T105°C (221°F) {Tamb.: 80°C (176°F)}	**KU2**

T05-1E.EPS

*1: Applicable for Electrical connection code 2 and 7 (1/2 NPT female).
*2: Applicable for Electrical connection code 2, 4, 7 and 9 (1/2 NPT and M20 female).
*3: Applicable for Output signal code D and E.
For intrinsically safe approval, use the safety barrier certified by the testing laboratories (BARD-400 is not applicable).

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Item	Description	Code
Canadian Standards Association (CSA)	CSA Explosionproof Approval *1 *3 Applicable standard: C22.2 No. 0, No. 0.4, No. 25, No. 30, No. 94, No. 142 Certificate: 1089598 Explosionproof for Class I, Division 1, Groups B, C and D Dustignitionproof for Class II/III, Division 1, Groups E, F and G Division2 'SEALS NOT REQUIRED' , Temp. Class: T4, T5, T6 Encl Type 4x Max. Process Temp.: T4; 120°C (248°F), T5; 100°C (212°F), T6; 85°C (185°F) Amb. Temp.: –40 to 80°C (–40 to 176°F)	**CF1**
	CSA Intrinsically safe Approval *1 *3 Applicable standard: C22.2 No. 0, No. 0.4, No. 25, No. 30, No. 94, No. 142, No. 157, No. 213 Certificate: 1053843 Class I, Groups A, B, C and D Class II and III, Groups E, F and G Encl Type 4x, Temp. Class: T4, Amb. Temp.: –40 to 60°C (–40 to 140°F) Vmax=30 V, Imax=165 mA, Pmax=0.9 W, Ci=22.5 nF, Li=730 μH	**CS1**
	Combined CF1 and CS1 *1 *3	**CU1**
IECEx Scheme *4	IECEx Intrinsically safe, type n and Flameproof Approval *3 *5 Intrinsically safe and type n Applicable Standard: IEC 60079-0:2004, IEC 60079-11:1999, IEC 60079-15:2005, IEC 60079-26:2005 Certificate: IECEx KEM 06.0007X Ex ia IIC T4, Ex nL IIC T4 Enclosure: IP67 Amb. Temp.: –40 to 60°C (–40 to 140°F), Max. Process Temp.: 120°C (248°F) Electrical Parameters: [Ex ia] Ui=30 V, Ii=165 mA, Pi=0.9 W, Ci=22.5 nF, Li=730 μH [Ex nL] Ui=30 V, Ci=22.5 nF, Li=730 μH Flameproof Applicable Standard: IEC 60079-0:2004, IEC60079-1:2003 Certificate: IECEx KEM 06.0005 Ex d IIC T6...T4 Enclosure: IP67 Max.Process Temp.: T4;120°C (248°F), T5;100°C (212°F), T6; 85°C (185°F) Amb.Temp.: –40 to 75°C (–40 to 167°F) for T4, –40 to 80°C (–40 to 176°F) for T5, –40 to 75°C (–40 to 167°F) for T6	**SU2**

T05-2E.EPS

*1: Applicable for Electrical connection code 2 and 7 (1/2 NPT female).
*2: Applicable for Electrical connection code 2, 4, 7 and 9 (1/2 NPT and M20 female).
*3: Applicable for Output signal code D and E.
For intrinsically safe approval, use the safety barrier certified by the testing laboratories (BARD-400 is not applicable).
*4: Applicable only for Australia and New Zealand area.
*5: Applicable for Electrical connection code 2, 4 and 7 (1/2 NPT and M20 female).

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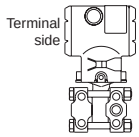
■OPTIONAL SPECIFICATIONS

Item		Description		Code
Painting *10	Color change	Amplifier cover only		P□
		Amplifier cover and terminal cover, Munsell 7.5 R4/14		PR
	Coating change	Epoxy resin-baked coating *11		X1
Lightning protector		Transmitter power supply voltage: 10.5 to 32 V DC (10.5 to 30 V DC for intrinsically safe type, 9 to 32 V DC for Fieldbus communication type.) Allowable current: Max. 6000 A (1×40 μs), Repeating 1000 A (1×40 μs) 100 times		A
Oil-prohibited use *6		Degrease cleansing treatment		K1
		Degrease cleansing treatment with fluorinated oil filled capsule. Operating temperature −20 to 80°C		K2
Oil-prohibited use with dehydrating treatment *6		Degrease cleansing and dehydrating treatment		K5
		Degrease cleansing and dehydrating treatment with fluorinated oilfilled capsule. Operating temperature −20 to 80°C		K6
Calibration units *1		P calibration (psi unit)	(See Table for Span and Range Limits.)	D1
		bar calibration (bar unit)		D3
		M calibration (kgf/cm^2 unit)		D4
Sealing treatment to SUS630 nuts		Sealant(liquid silicone rubber) is coated on JIS SUS630 cover flange mounting nuts against stress corrosion cracking.		Y
Long vent *2		Total length: 119 mm (standard: 34 mm); Total length when combining with Optional code K1, K2, K5, and K6: 130 mm. Material: SUS316.		U
Fast response *7		Update time: 0.125 sec or less Amplifier damping time constant: 0.1 to 64 sec in 9 increments Response time (with min. damping time constant): max. 0.3 sec		F1
Failure alarm down-scale *3		Output status at CPU failure and hardware error is –5%, 3.2 mA or less.		C1
NAMUR NE43 compliant *3 *9		Output signal limits: 3.8 mA to 20.5 mA	Failure alarm down-scale: output status at CPU failure and hardware error is –5%, 3.2 mA or less.	C2
			Failure alarm up-scale: output status at CPU failure and hardware error is 110%, 21.6 mA or more.	C3
Data configuration at factory *12		Description into “Descriptor” parameter of HART protocol		CA
Stainless steel amplifier housing *4		Amplifier housing material; SCS14A stainless steel (equivalent to SUS316 cast stainless steel or ASTM CF-8M)		E1
Gold-plate *5		Surface of isolating diaphragms are gold plated, effective for hydrogen permeation. (The diaphragm for atmospheric side is not gold-plated)		A1
Configuration		Custom software configuration		R1
Body option *8 		Right side high pressure, without drain and vent plugs		N1
		N1 and Process connection, based on DIN 19213 with 7/16 inch×20 unf female thread, on both sides of cover flange with blind kidney flanges on back		N2
		N1, N2, and Mill certificate for cover flange, diaphragm, capsule body, and blind kidney flange		N3
Stainless steel tag plate		SUS304 stainless steel tag plate wired onto transmitter		N4

T06E.EPS

*1: The unit of MWP (Max. working pressure) on the name plate of a housing is the same unit as specified by Option code D1, D3 and D4.
*2: Applicable for vertical impulse piping type (Installation code 2, 3, 6, or 7) and Wetted parts material code S, H, M, and T.
*3: Applicable for Output signal code D and E. The hardware error indicates faulty amplifier or capsule.
When combining with Option code F1, output status for down-scale is –2.5%, 3.6 mA DC or less.
*4: Applicable for Electrical connection code 2, 3, 4, and 7. Not applicable for Option code P□ and X1.
*5: Applicable for Wetted parts material code S.
*6: Applicable for Wetted parts material code S, H, M, and T.
*7: Applicable for Output signal code D and E.
*8: Applicable for Wetted parts material code S, H, T, and M; Process connection code 3, 4, and 5; Installation code 9; and Mounting bracket code N. Process connection faces on the other side of zero adjustment screw.
*9: Not applicable for Option code C1.
*10: Standard polyurethan painting can be used in acid atmosphere, whereas the epoxy resin-baked coating (Option code X1) can be used in alkaline atmosphere. Anti-corrosion coating, the combination of polyurethan and epoxy resin-baked coating, is available by special order as sea water, alkaline, and acid resistant.
*11: Not applicable for color change option.
*12 Applicable for Output signal code E.

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Item	Description		Code
Mill Certificate	Cover flange *1		**M01**
	Cover flange, Process connector *2		**M11**
Pressure test/Leak test Certificate *6	Test Pressure: 3 MPa{30 kgf/cm^2} *3	Nitrogen (N_2) Gas *5 Retention time: 10 minutes	**T03**
	Test Pressure: 14 MPa{140 kgf/cm^2} *4		**T02**

T07E.EPS

*1: Applicable for Process connection code 0 and 5.
*2: Applicable for Process onnection code 1, 2, 3, and 4.
*3: Applicable for Capsule code A.
*4: Applicable for Capsule code B.
*5: Pure nitrogen gas is used for oil-prohibited use (Optional code K1, K2, K5, and K6).
*6: The unit on the certificate is always MPa regardless of selection of option code D1, D3, or D4.

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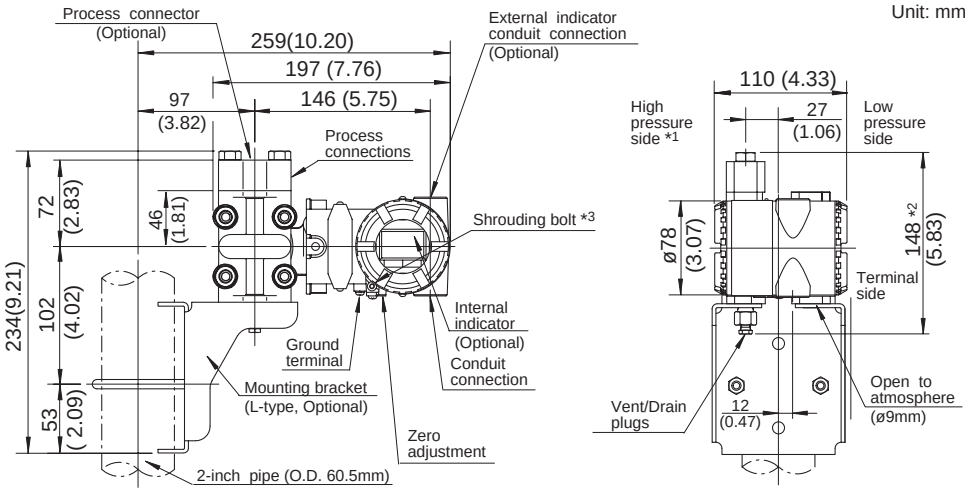
■ DIMENSIONS

● Model EJA430A

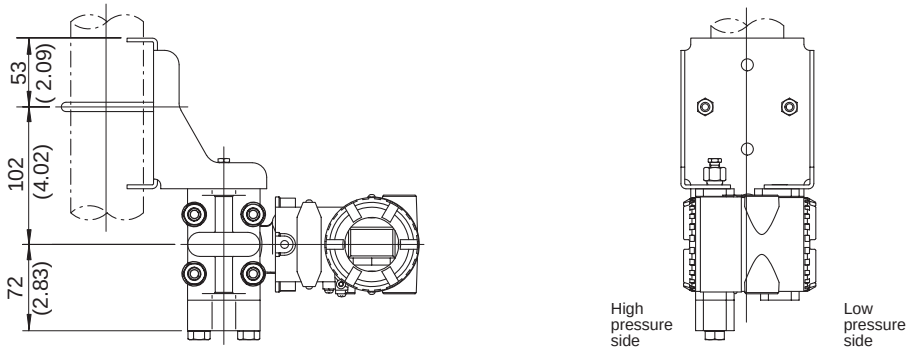
Vertical Impulse Piping Type

Process connector upside (INSTALLATION CODE '6') (For CODE '2' or '3,' refer to the notes below.)

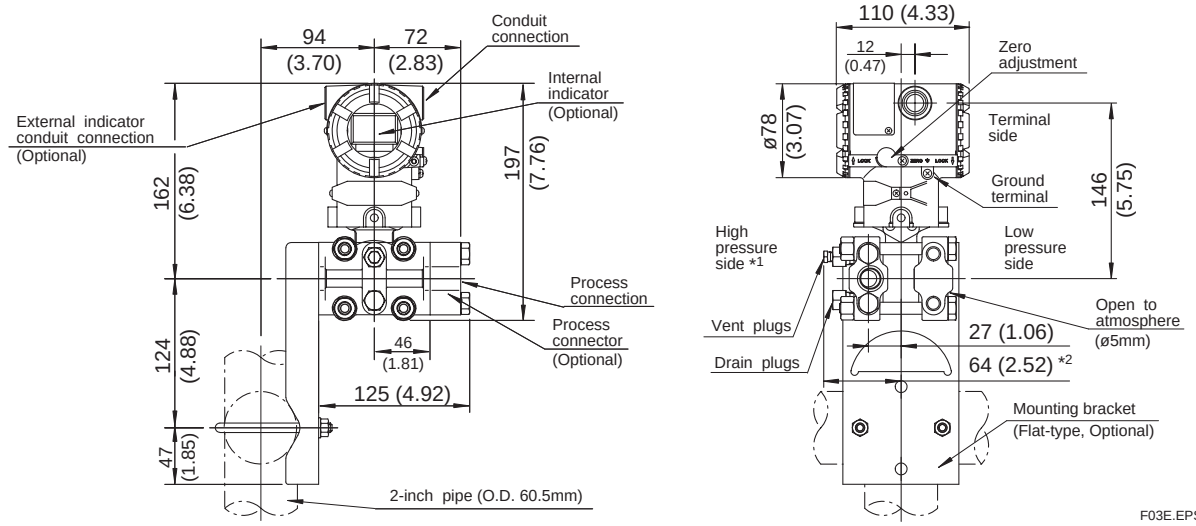
Unit: mm (approx. inch)



Process connector downside (INSTALLATION CODE '7')



Horizontal Impulse Piping Type (INSTALLATION CODE '9') (For CODE '8', refer to the notes below.)



F03E.EPS

*1: When Installation code 2, 3, or 8 is selected, high and low pressure side on above figure are reversed. (i.e. High pressure side is on the right side.)
*2: When Optional code K1, K2, K5, or K6 is selected, add 15 mm(0.59 inch) to the value in the figure.
*3: Applicable only for ATEX and IECEx Flameproof type.

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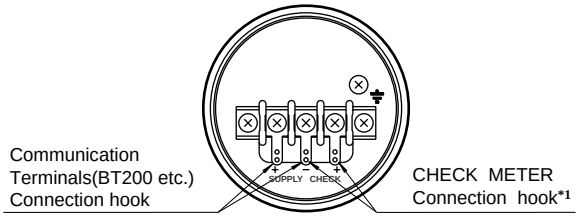
● Terminal Configuration



● Terminal Wiring

SUPPLY + −	Power supply and output terminal
CHECK + −	External indicator(ammeter) terminal*1
⏚	Ground terminal

*1: When using an external indicator or a check meter, the internal resistance must be 10 Ω or less. Not available for Fieldbus communication(Output signal code F).

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■ SELECTION GUIDE

Application	Type	Model	Capsule	Measurement Span		Maximum Working Pressure	
				kPa	inH_2O	MPa	psi
Differential Pressure	Traditional-Mounting*1	EJA110A	L M H V	0.5 to 10 1 to 100 5 to 500 0.14 to 14MPa	2 to 40 4 to 400 20 to 2000 20 to 2000 psi	16*4 16 16 16	2250*4 2250 2250 2250
Flow	Integral Orifice	EJA115	L M H	1 to 10 2 to 100 20 to 210	4 to 40 8 to 400 80 to 830	3.5 14 14	500 2000 2000
Differential Pressure & Liquid Level with Remote Seals	Extended Flush Combination	EJA118N EJA118W EJA118Y	M H	2.5 to 100 25 to 500	10 to 400 100 to 2000	Based on Flange Rating	
Draft Range	Traditional-Mounting*1	EJA120A	E	0.1 to 1	0.4 to 4	50 kPa	7.25
Differential Pressure & Liquid Level	Traditional-Mounting*1	EJA130A	M H	1 to 100 5 to 500	4 to 400 20 to 2000	32 32	4500 4500
Liquid Level, Closed or Open Tank	Flush Extended	EJA210A EJA220A	M H	1 to 100 5 to 500	4 to 400 20 to 2000	Based on Flange Rating	
Absolute (vacuum) Pressure	Traditional-Mounting*1	EJA310A	L M A	0.67 to 10*2 1.3 to 130*2 0.03 to 3 MPa*2	2.67 to 40*2 0.38 to 38 inHg*2 4.3 to 430 psi*2	10 kPa*2 130 kPa*2 3000 kPa*2	40 in H_2O*2 18.65*2 430*2
Gauge Pressure	Traditional-Mounting*1	EJA430A	A B	0.03 to 3 MPa 0.14 to 14 MPa	4.3 to 430 psi 20 to 2000 psi	3 14	430 2000
Gauge Pressure with Remote Seal	Extended	EJA438N	A B	0.06 to 3 MPa 0.46 to 7 MPa	8.6 to 430 psi 66 to 1000 psi	Based on Flange Rating	
Gauge Pressure with Remote Seal	Flush	EJA438W	A B	0.06 to 3 MPa 0.46 to 14 MPa	8.6 to 430 psi 66 to 2000 psi	Based on Flange Rating	
High Gauge	Traditional-Mounting*1	EJA440A	C D	5 to 32 MPa 5 to 50 MPa	720 to 4500 psi 720 to 7200 psi	32 50	4500 7200
Absolute & Gauge Pressure*3	Direct-Mounting	EJA510A EJA530A	A B C D	10 to 200 0.1 to 2 MPa 0.5 to 10 MPa 5 to 50 MPa	1.45 to 29 psi 14.5 to 290 psi 72.5 to 1450 psi 720 to 7200 psi	200 kPa 2 10 50	29 290 1450 7200

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*1: Traditional-mounting is 1/4 - 18 NPTF process connections (1/2 - 14 NPTF with process adapters) on 2-1/8" centers.
*2: Measurement values in absolute.
*3: Measurement values in absolute for EJA510A.
*4: When combined with Wetted parts material code H, M, T, A, D, and B, the value is 3.5 MPa (500 psi).

< Ordering Information > "◇"

Specify the following when ordering
1. Model, suffix codes, and optional codes
2. Calibration range and units:
   1) Calibration range can be specified with range value specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -32000 to 32000.
   2) Specify only one unit from the table, 'Settings when shipped.'
3. Select linear or square root for output mode and display mode.
   Note: If not specified, the instrument is shipped set for linear mode.
4. Select normal or reverse for operation mode
   Note: If not specified, the instrument is shipped in normal operation mode.
5. Display scale and units (for transmitters equipped with integral indicator only)
   Specify either 0 to 100 % or engineering unit scale and 'Range and Unit' for engineering units scale: Scale range can be specified with range limit specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -19999 to 19999.
6. Tag Number (if required)

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