■ MODEL AND SUFFIX CODES

EJA430E		s	Description
			Gauge pressure transmitter
	-D		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)	-Q		Low Power, 1 to 5 V DC with digital communication (HART 7 protocol) 5 to 500 kPa (20 to 2000 inH2O) 0.03 to 3.5 MPa (4.3 to 500 psi) 0.14 to 16 MPa (20 to 2300 psi)
Wetted parts material *2			Refer to "Wetted Parts Material" Table.
Process connection See the table in the page for the codes diaphragm seal sys	e next 1s for a 2		without process connector (Rc1/4 female on the cover flanges) with Rc1/4 female process connector with Rc1/2 female process connector with 1/4 NPT female process connector with 1/2 NPT female process connector without process connector (1/4 NPT female on the cover flanges)
Bolts and nuts mat	teria J G		B7 carbon steel 316L SST 660 SST
Installation	-7 -8 -9 -B		Vertical piping, right side high pressure, and process connection down side Vertical piping, left side high pressure, and process connection down side Horizontal piping and right side high pressure Horizontal piping and left side high pressure Bottom Process Connection, left side high pressure* Universal flange*3
Amplifier housing	3		Cast aluminum alloy Cast aluminum alloy with corrosion resistance properties *4 ASTM CF-8M stainless steel *5
Electrical connection 0			G1/2 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 G1/2 female, two electrical connections and a blind plug *6 1/2 NPT female, two electrical connections and a blind plug *6 M20 female, two electrical connections and a blind plug *6 G1/2 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 *7 Digital indicator with the range setting switch (push button) *8 (None)
Mounting bracket	•	1_	304 SST 2-inch pipe mounting, flat type (for horizontal piping) 304 SST or SCS13A 2-inch pipe mounting, L type (for vertical piping) 316 SST 2-inch pipe mounting, flat type (for horizontal piping) 316 SST or SCS14A 2-inch pipe mounting, L type (for vertical piping) 316 SST or SCS14A 2-inch pipe mounting (for bottom process connection type) (None)
Optional Codes			□/ Optional specification

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

- *1: HART 5 or HART 7 is selectable. Specify upon ordering.
- *2: \(\triangle \) 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.

- *3: Applicable only for Wetted parts material code S.
- *4: Not applicable for electrical connection code 0, 5, 7, 9 and A.
- *5: Not applicable for electrical connection code 0, 5, 7 and 9.
- *6: Material of a blind plug; aluminum alloy for code 5 and 9, and SUS304 for code 7.
- *7: Not applicable for output signal code G.
- *8: Not applicable for output signal code F.

Table. Wetted Parts Materials

Wetted parts material code	Cover flange and process connector	Capsule	Capsule gasket	Vent/Drain plug
S#	ASTM CF-8M *1	Hastelloy C-276 *2 (Diaphragm) F316L SST, 316L SST (Others)	Teflon-coated 316L SST	316 SST
L# ASTM CF-3M *7		Hastelloy C-276 *2 (Diaphragm) F316L SST, 316L SST (Others)	Teflon-coated 316L SST	316L SST
H#	ASTM CF-8M *1	Hastelloy C-276 *2	PTFE Teflon	316 SST
M #	ASTM CF-8M *1	Monel	PTFE Teflon	316 SST
Т	ASTM CF-8M *1	Tantalum	PTFE Teflon	316 SST
A#	Hastelloy C-276 equivalent *3	Hastelloy C-276 *2	PTFE Teflon	Hastelloy C-276 *2
D Hastelloy C-276 equivalent *3		Tantalum	PTFE Teflon	Hastelloy C-276 *2
B# Monel equivalent *4		Monel	PTFE Teflon	Monel
W # Super Duplex SST equivalent *5		Hastelloy C-276 *2	PTFE Teflon	Super Duplex SST *6

^{*1:} Cast version of 316 SST. Equivalent to SCS14A.

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.

[Process Connections Code for Diaphragm Seal System]

The table below shows the codes dedicated for the combination with a diaphragm seal system. They are only available when the transmitter is ordered in combination with a diaphragm seal system. Please also refer to GS 01C25W01-01EN.

Process Connections Code	High Pressure Side	Low Pressure Side
В	With C80F□, C82F□ or C70S□ diaphragm seal	Open to atmosphere
G	With C80F□ or C82F□ diaphragm seal for high vacuum use	Open to atmosphere

80F□, C82F□, and C70S□ stands for C80FW or C80FE remote mount flanged diaphragm seal, C82FA inner diaphragm adapter connection seal, C82FD inner diaphragm flanged seal, and C70SW or C70SE remote mount hygienic diaphragm seal respectively.

^{*2:} Hastelloy C-276 or ASTM N10276.

^{*3:} Indicated material is equivalent to ASTM CW-12MW.

^{*4:} Indicated material is equivalent to ASTM M35-2.

^{*5:} Indicated material is equivalent to ASTM A995 Grade5A.

^{*6:} ASTM S32750 or EN 10272 1.4410.

^{*7:} Cast version of 316L SST. Equivalent to SCS16A.

■ OPTIONAL SPECIFICATIONS (For Explosion Protected type) "◊"

For other agency approvals and marine approvals, please refer to GS 01C25A20-01EN.

ltem	Description	Code
Factory Mutual (FM)	FM Explosionproof Approval *1 Applicable Standard: FM3600, FM3615, FM3810, NEMA 250, ANSI/UL 61010-1, ANSI/UL 61010-2-30 Explosionproof for Class I, Division 1, Groups B, C and D, Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G, in Hazardous locations, indoors and outdoors (Enclosure: Type 4X) "FACTORY SEALED, CONDUIT SEAL NOT REQUIRED." Temperature class: T6, Amb. Temp.: –40 to 60°C (–40 to 140°F)	FF1
	FM Intrinsically safe Approval *1*3 Applicable Standard: FM 3600, FM 3610, FM 3611, FM 3810, ANSI/ISA-60079-0, ANSI/ISA-60079-11,	FS1
	Combined FF1 and FS1 *1*3	FU1
ATEX	ATEX Flameproof Approval *1 Applicable Standard: EN IEC 60079-0, EN 60079-1, EN 60079-31 Certificate: KEMA 07ATEX0109 X II 2G, 2D Ex db IIC T6T4 Gb, Ex tb IIIC T85°C Db Degree of protection: IP66/IP67 Amb. Temp. (Tamb) for gas-proof: T4; –50 to 75°C (–58 to 167°F), T5; –50 to 80°C (–58 to 176°F), T6; –50 to 75°C (–58 to 167°F) Process Temp. for gas-proof (Tp): T4; –50 to 120°C (–58 to 248°F), T5; –50 to 100°C (–58 to 212°F), T6; –50 to 85°C (–58 to 185°F) Max. surface Temp. for dust-proof: T85°C (Tamb: –30 to 75°C, Tp: –30 to 85°C) *2	KF22
	ATEX Intrinsically safe Approval *1*3 Applicable Standard: EN 60079-0, EN 60079-11 Certificate: DEKRA 11ATEX0228 X II 1G, 2D Ex ia IIC T4 Ga, Ex ia IIIC T85°C T100°C T120°C Db Degree of protection: IP66/IP67 Amb. Temp. (Tamb) for EPL Ga: –50 to 60°C (–58 to 140°F) Maximum Process Temp. (Tp) for EPL Ga:120°C Electrical data: Ui=30 V, Ii=200 mA, Pi=0.9 W, Ci=27.6 nF, Li=0 μH Amb. Temp. for EPL Db: –30 to 60°C *2 Max. surface Temp. for EPL Db: T85°C (Tp: 80°C), T100°C (Tp: 100°C), T120°C (Tp: 120°C)	KS21
	Combined KF22, KS21 and ATEX Intrinsically safe Ex ic *1*3 [ATEX Intrinsically safe Ex ic] Applicable Standard: EN 60079-0, EN 60079-11 II 3G Ex ic IIC T4 Gc, Amb. Temp.: –30 to 60°C (–22 to 140°F) *2 Ui=30 V, Ci=27.6 nF, Li=0 µH	KU22

Canadian Standards Association (CSA)	CSA Explosionproof Approval *1 Certificate: 2014354 Applicable Standard: C22.2 No. 25, C22.2 No. 30, CAN/CSA-C22.2 No. 94, CAN/CSA-C22.2 No. 61010-1, CAN/CSA-C22.2 No. 61010-2-030, CAN/CSA-C22.2 No. 60079-0, CAN/CSA-C22.2 No. 60079-1, CAN/CSA-C22.2 No. 60529 Explosion-proof for Class I, Groups B, C and D. Dustignition-proof for Class II/III, Groups E, F and G. When installed in Division 2, "SEAL NOT REQUIRED" Enclosure: Type 4X, Temp. Code: T6T4 Ex d IIC T6T4 Enclosure: IP66/IP67 Max.Process Temp.: T4;120°C(248°F), T5;100°C(212°F), T6; 85°C(185°F) Amb.Temp.: –50 to 75°C(–58 to 167°F) for T4, –50 to 80°C(–58 to 176°F) for T5, –50 to 75°C(–58 to 167°F) for T6 *2 Process Sealing Certification Dual Seal Certified by CSA to the requirement of ANSI/ISA-12.27.01 No additional sealing required Primary seal failure annunciation: at the zero adjustment screw	CF1
	CSA Intrinsically safe Approval *1*3 Certificate: 1606623 [For Division System] Applicable Standard: C22.2 No.0, C22.2 No.94, C22.2 No.157, C22.2 No.213, C22.2 No.61010-1, C22.2 No.61010-2-030 Intrinsically Safe for Class I, Division 1, Groups A, B, C & D, Class II, Division 1, Groups E, F & G, Class III, Division 1, Nonincendive for Class I, Division 2, Groups A, B, C & D, Class II, Division 2, Groups F & G, Class III, Division 1 Enclosure: Type 4X, Temp. Code: T4 Amb. Temp.: –50 to 60°C(–58 to 140°F) *2 Electrical Parameters: [Intrinsically Safe] Vmax=30V, Imax=200mA, Pmax=0.9W, Ci=10nF, Li=0 μH [Nonincendive] Vmax=30V, Ci=10nF, Li=0 μH [For Zone System] Applicable Standard: CAN/CSA-C22.2 60079-0, CAN/CSA-E60079-11, CAN/CSA-E60079-15, CAN/CSA-C22.2 No.60529 Ex ia IIC T4, Ex nL IIC T4 Enclosure: IP66/IP67 Amb. Temp.: –50 to 60°C(–58 to 140°F)*2, Max. Process Temp.: 120°C(248°F) Electrical Parameters: [Ex ia] Ui=30V, Ii=200mA, Pi=0.9W, Ci=10nF, Li=0 μH Process Sealing Certification Dual Seal Certification Dual Seal Certification Dual Seal Certification: A the zero adjustment screw	CS1
	Combined CF1 and CS1 *1*3	CU1
IECEx	IECEx Flameproof Approval *1 Applicable Standard: IEC 60079-0, IEC60079-1 Certificate: IECEx CSA 07.0008 Flameproof for Zone 1, Ex d IIC T6T4 Gb Enclosure: IP66/IP67 Max.Process Temp.: T4;120°C(248°F), T5;100°C(212°F), T6; 85°C(185°F) Amb.Temp.: –50 to 75°C(–58 to 167°F) for T4, –50 to 80°C(–58 to 176°F) for T5, –50 to 75°C(–58 to 167°F) for T6	SF2
	IECEx Intrinsically safe and Flameproof Approval *1*3 Intrinsically safe Ex ia Certificate: IECEx DEK 11.0081X Applicable Standard: IEC 60079-0, IEC 60079-11 Ex ia IIC 74 Ga Enclosure: IP66/IP67 Amb. Temp.: -50 to 60 °C(-58 to 140 °F), Max. Process Temp.: 120 °C(248 °F) Electrical Parameters: Ui=30 V, Ii=200 mA, Pi=0.9 W, Ci=27.6 nF, Li=0 μH Intrinsically safe Ex ic Certificate: IECEx DEK 13.0061X Applicable Standard: IEC 60079-0, IEC 60079-11 Ex ic IIC 74 Gc IP code: IP66 Amb. Temp.: -30 to 60°C(-22 to 140°F) *2, Max. Process Temp.: 120°C(248°F) Electrical Parameters: Ui=30V,Ci=27.6 nF, Li=0 μH Flameproof Certificate: IECEx CSA 07.0008 Applicable Standard: IEC 60079-0, IEC60079-1 Flameproof for Zone 1, Ex d IIC 7674 Gb Enclosure: IP66/IP67 Max.Process Temp.: 74;120°C(248°F), 75;100°C(212°F), 76; 85°C(185°F) Amb.Temp.: -50 to 75°C(-58 to 167°F) for T4, -50 to 80°C(-58 to 176°F) for T5, -50 to 75°C(-58 to 167°F) for T6	SU21

Applicable for Electrical connection code 2, 4, 7, 9, C and D. Lower limit of temperature is –15°C (5°F) when /HE is specified. Not applicable for output signal code Q. *1: *2: *3:

■ OPTIONAL SPECIFICATIONS

	Item		Des	cription		Code
High accuracy type *1*21*29		High accuracy				HAC
Painting Color change		Amplifier cover only*2				P□
		Amplifier cover and terminal cover, Munsell 7.5 R4/14				PR
Coating change		Anti-corrosion coating*3				X2
316 SST exte	erior parts	316 SST zero-adjustment screw	and setscre	ws*4		НС
Fluoro-rubbe	er O-ring	All O-rings of amplifier housing.	Lower limit of	f ambient tem	perature: –15°C (5°F)	HE
Lightning pro	otector	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 Applicable Standards: IEC 61000-4-4, IEC 61000-4-5			A	
Oil-prohibited	d use*5*29	Degrease cleansing treatment				K1
		Degrease cleansing treatment w Operating temperature -20 to 80			sule.	K2
Oil-prohibited	d use with	Degrease cleansing and dehydr	ating treatme	ent		K5
dehydrating t	treatment*5*29	Degrease cleansing and dehydr Operating temperature –20 to 80			ated oilfilled capsule.	K6
Capsule fill fl	uid ^{*29}	Flourinated oil filled in capsule Operating temperature -20 to 80	0°C (−4 to 17	6°F)		К3
Calibration u	nits*6	P calibration (psi unit)				D1
		bar calibration (bar unit)		(See Table fo	or Span and Range Limits.)	D3
		M calibration (kgf/cm ² unit)				D4
Plug option*2	4*25*29	Long vent*7: Total length: 119 mm (standard: 34 mm); Total length when combining with optional code K1, K2, K5, and K6: 130 mm. Material: 316 SST U1.		U1		
		Without vent and drain plugs			UN	
Gold-plated o	apsule gasket*8*29	Gold-plated 316L SST capsule gasket. Without drain and vent plugs.			GS	
Gold-plated	diaphragm*9*29	Surface of isolating diaphragms	are gold plat	ed, effective	Gold plate thickness: 3 µm	A1
		for hydrogen permeation.			Gold plate thickness: 10 µm	A2
Output limits and failure operation*10		Failure alarm down-scale : Output status at CPU failure and hardware error is −5%, 3.2mA DC or less for 4 to 20 mA output type, and −5%, 0.8V DC or less for 1 to 5 V output type.			C1	
		NAMUR NE43 Compliant Output signal limits:	Failure alarm down-scale: Output status at CPU failure and hardware error is −5%, 3.2 mA DC or less.		C2	
		3.8 mA to 20.5 mA *22		e alarm up-scale: Output status at CPU and hardware error is 110%, 21.6 mA or more.		
Body option*	11*29 ¶	Right side high pressure, without drain and vent plugs			N1	
Terminal Side		N1 and Process connection, based on IEC61518 with female thread on both sides of cover flange, with blind kidney flanges on back			N2	
L FO3E.ai		N2, and Material certificate for cover flange, diaphragm, capsule body, and blind kidney flange			N3	
Wired tag pla	ate	316 SST tag plate wired onto tra	nsmitter			N4
Data configu	ration at factory*12	Data configuration for HART cor	mmunication	type	Software damping, Descriptor, Message	CA
		Data configuration for BRAIN communication type Software damping			СВ	
Material certi	ficate*13*29	Cover flange *14			M01	
		Cover flange, Process connector *15			M11	
		Cover flange, Diaphragm, Capsule body*14*30				MA1
		Cover flange, Process connector, Diaphragm, Capsule body*15*26				MC1
		Cover flange, Bolt and Nut for cover flange, Diaphragm, Capsule body, Vent and Drain plug, Vent screw, Capsule gasket*14*23*25				MG1
		Cover flange, Process connector, Bolt and nut for cover flange, Bolt for process connector, Diaphragm, Capsule body, Vent and Drain plug, Vent screw, Capsule gaske ^{t*15*23*25}			MH1	
Pressure tes		Test Pressure: 500 kPa (2000 in	H ₂ O)*17		N:: 20 *20	T11
Leak test cer	tificate*16*29	Test Pressure: 3.5 MPa (500 psi)*18		Nitrogen Gas ^{*20} Retention time: one minute	T01
		Test Pressure: 16 MPa (2300 ps	si)* ¹⁹		Treatinon unie. One militute	T12
Parameter list*27		List of setting and adjustment parameters			YP	
Functional safety(SIL)*28		Low temperature expansion of for	unctional safe	ety Amb.Temp	.: −55 to 85°C	SLT

- *1: Applicable for wetted parts material code S or L. Not applicable for /A2.
- *2: Not applicable for amplifier housing code 2 and 3.
- *3: Not applicable with color change option. Not applicable for amplifier housing code 2.
- *4: 316 or 316L SST. The specification is included in amplifier code 2.
- *5: Applicable for wetted parts material code S, M, H and T.
- *6: The unit of MWP (Max. working pressure) on the name plate of a housing is the same unit as specified by option codes D1, D3, and D4.
- *7: Applicable for vertical impulse piping type (installation code 3 or 7) and wetted parts material code S, M, H and T.
- *8: Applicable for wetted parts material code S; process connection code 0 and 5; and installation code 8 and 9. Not applicable for option code U1, N2, N3 and M11. No PTFE is used for wetted parts.
- *9: Applicable for wetted parts material code S or L. /A2 is not applicable with FM approval.
- *10: Applicable for output signal codes D and J. The hardware error indicates faulty amplifier or capsule.
- *11: Applicable for wetted parts material code S, M, H and T.; process connection codes 3, 4, and 5; installation code 9; and mounting bracket code N. Process connection faces on the other side of zero adjustment screw.
- *12: Also see 'Ordering Information'.
- *13: Material traceability certification, per EN 10204 3.1B.
- *14: Applicable for process connections code 0 and 5.
- *15: Applicable for process connections code 1, 2, 3, and 4.
- *16: The unit on the certificate is always Pa unit regardless of selection of option code D1, D3 or D4.
- *17: Applicable for capsule code H.
- *18: Applicable for capsule code A.
- *19: Applicable for capsule code B.
- *20: Dry nitrogen gas is used for oil-prohibited use (option codes K1, K2, K5, and K6).
- *21: Not applicable for output signal code Q.
- *22: The 1 to 5 V voltage output corresponding to 4 to 20 mA current output is applied to output signal code Q which is non-compliant to NAMUR NE43.
- *23: Not applicable with plug option code UN.
- *24: Not applicable for installation code -U.
- *25: Not applicable with option code N1, N2, N3 and GS.
- *26: Applicable for option code UN and N1.
- *27: Applicable for output signal code D and J.
- *28: Not applicable for output signal code F, G, Q, process connections code for diaphragm seal system.
- *29: Not applicable with process connections code for diaphragm seal system B and G.
- *30: Applicable for option code UN, N1, and GS.

■ OPTIONAL SPECIFICATIONS (FOR DIAPHRAGM SEAL SYSTEM)

The table below shows the code dedicated for the combination with a diaphragm seal system. It is only available when the transmitter is ordered in combination with a diaphragm seal system. Please also refer to GS 01C25W01-01EN

Item	Descriptions	Code
Capsule fill fluid	Fluorinated oil filled in capsule Operating temperature -20 to 80°C (-4 to 176°F)	K13
Material certificate	Bolt and nut for cover flange	M51

EJA430E Overview

Refer to the General Specification sheet located under the 'Downloads' tab for detailed specifications.

Measurement Types			
Primary Variable	Gauge Pressure		
Reference Accuracy			
Primary Variable	±0.055% of Span ±0.04% of Span (with /HAC option)		
Stability (All Normal Operating Con	ditions)		
Primary Variable	±0.1% of URL per 10 years		
Response Time			
Primary Variable	90ms		
Rangeability			
Primary Variable	100:1		
Burst Pressure (Absolute)			
EJA510E	Wetted Parts code S: 10,000 psi All other Wetted Parts: 6,800 psi		
Specification Conformance			
EJA-E Series	±3σ		





Indicator with LPS



Basic Indicator



No Indicator

Local Display

















Product Certification



Standard



Ultra-low Copper



Stainless Steel

Housing

4 to 20mA

1 to 5VDC (Low Power)

Output Signal









Digital Communication







3-Valve Manifold



5-Valve Manifold

Process Connection