

■ MODEL AND SUFFIX CODES

Model	Suffix Codes	Description
EJA130E	Differential pressure transmitter
Output signal	-D -J -F -G -Q	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) Low Power, 1 to 5 V DC with digital communication (HART 7 protocol)
Measurement span (capsule)	M H	1 to 100 kPa (4 to 400 inH ₂ O) 5 to 500 kPa (20 to 2000 inH ₂ O)
Wetted parts material *2	S	Refer to "Wetted Parts Material" Table below.
Process connections	3 4 5	with 1/4 NPT female process connector*3 with 1/2 NPT female process connector*3 without process connector (1/4 NPT female on the cover flanges)
Bolts and nuts materia	J G C	B7 carbon steel 316L SST 660 SST
Installation	-7 -8 -9 -U	Vertical piping, left side high pressure, and process connection downside Horizontal piping and right side high pressure Horizontal piping and left side high pressure Universal flange
Amplifier housing	1 3 2	Cast aluminum alloy Cast aluminum alloy with corrosion resistance properties*4 ASTM CF-8M stainless steel*5
Electrical connection	0 2 4 5 7 9 A C D	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 SUS316 blind plug 1/2 NPT female, two electrical connections and a SUS316 blind plug M20 female, two electrical connections and a SUS316 blind plug
Integral indicator	D E N	Digital indicator*7 Digital indicator with the range setting switch (push button)*8 None
Mounting bracket	B D J K N	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) None
Optional Codes		<input type="checkbox"/> / Optional specification

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

*1: HART 5 or HART 7 is selectable. Specify upon ordering.

*2: ⚠ Users must consider the characteristics of selected wetted parts material and influence of process fluids. Specifying inappropriate materials has the potential to cause serious damage to human body and plant facilities resulted from an unexpected leak of the corrosive process fluids.

*3: Lower limit of ambient and process temperature is -15°C.

*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	Process connector	Capsule	Capsule gasket	Vent/Drain plug
S #	F316 SST	ASTM CF-8M *1	Hastelloy C-276 *2 (Diaphragm) F316L SST, 316L SST (Others)	Teflon-coated 316L SST	316 SST

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

*2: Hastelloy C-276 or ASTM N10276.

The '# marks indicate the construction materials conform to NACE material recommendations per MR0175/ISO15156. Please refer to the latest standards for details. Selected materials also conform to NACE MR0103.

■ OPTIONAL SPECIFICATIONS (For Explosion Protected type) “◇”

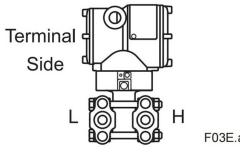
For other agency approvals and marine approvals, please refer to GS 01C25A20-01EN.

Item	Description	Code
Factory Mutual (FM)	<p>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)</p>	FF1
	<p>FM Intrinsically safe Approval *1*3 Applicable Standard: FM 3600, FM 3610, FM 3611, FM 3810, ANSI/ISA-60079-0, ANSI/ISA-60079-11, ANSI/ISA-61010-1, NEMA 250 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, Class I, Zone 0, in Hazardous Locations, AEx ia IIC Nonincendive for Class I, Division 2, Groups A, B, C & D, Class II, Division. 2, Groups F & G, Class I, Zone 2, Group IIC, in Hazardous Locations Enclosure: Type 4X, Temp. Class: T4, Amb. Temp.: –60 to 60°C (–75 to 140°F) Intrinsically Safe Apparatus Parameters [Groups A, B, C, D, E, F and G] Vmax=30 V, Imax=200 mA, Pmax=1 W, Ci=6 nF, Li=0 μH [Groups C, D, E, F and G] Vmax=30 V, Imax=225 mA, Pmax=1 W, Ci=6 nF, Li=0 μH</p>	FS1
	Combined FF1 and FS1 *1*3	FU1
ATEX	<p>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 T6...T4 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</p>	KF22
	<p>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)</p>	KS21
	<p>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</p>	KU22

<p>Canadian Standards Association (CSA)</p>	<p>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: T6...T4 Ex d IIC T6...T4 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</p>	<p>CF1</p>
	<p>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, li=200mA, Pi=0.9W, Ci=10nF, Li=0 µH [Ex nL] Ui=30V, Ci=10nF, Li=0 µH 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</p>	<p>CS1</p>
	<p>Combined CF1 and CS1 *1*3</p>	<p>CU1</p>
<p>IECEX</p>	<p>IECEX Flameproof Approval *1 Applicable Standard: IEC 60079-0, IEC60079-1 Certificate: IECEX CSA 07.0008 Flameproof for Zone 1, Ex d IIC T6...T4 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</p>	<p>SF2</p>
	<p>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 T4 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, li=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 T4 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 T6...T4 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</p>	<p>SU21</p>

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

■ OPTIONAL SPECIFICATIONS

Item		Description	Code
Painting	Color change	Amplifier cover only*2	P□
		Amplifier cover and terminal cover, Munsell 7.5 R4/14	PR
	Coating change	Anti-corrosion coating*1	X2
316 SST exterior parts		316 SST zero-adjustment screw and setscrews*3	HC
Fluoro-rubber O-ring		All O-rings of amplifier housing. Lower limit of ambient temperature: -15°C (5°F)	HE
Lightning protector		Transmitter power supply voltage: 10.5 to 32 V DC (10.5 to 30 V DC for intrinsically safe 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 use*4		Degrease cleansing treatment	K1
		Degrease cleansing treatment with fluorinated oilfilled capsule. Operating temperature -20 to 80°C (-4 to 176°F)	K2
Oil-prohibited use with dehydrating treatment*4		Degrease cleansing and dehydrating treatment	K5
		Degrease cleansing and dehydrating treatment with fluorinated oilfilled capsule. Operating temperature -20 to 80°C (-4 to 176°F)	K6
Capsule fill fluid		Fluorinated oil filled in capsule Operating temperature -20 to 80°C (-4 to 176°F)	K3
Calibration units*5		P calibration (psi unit)	D1
		bar calibration (bar unit)	(See Table for Span and Range Limits.) D3
		M calibration (kgf/cm ² unit)	D4
Plug option*20*21		Long vent*6: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K1, K2, K5, and K6: 130 mm. Material: 316 SST U1	U1
		Without vent and drain plugs	UN
Gold-plated capsule gasket*7		Gold-plated 316L SST capsule gasket. Without drain and vent plugs.	GS
Gold-plated diaphragm*18		Surface of isolating diaphragms are gold plated, effective for hydrogen permeation.	Gold plate thickness: 3 μm A1
			Gold plate thickness: 10 μm A2
Output limits and failure operation*8		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: 3.8 mA to 20.5 mA*17	Failure alarm down-scale: Output status at CPU failure and hardware error is -5%, 3.2 mA DC or less. C2
			Failure alarm up-scale: Output status at CPU failure and hardware error is 110%, 21.6 mA or more. C3
Body option*9 		Right side high pressure, without drain and vent plugs	N1
		N1 and Process connection, based on IEC61518 with female thread on both sides of cover flange, with blind kidney flanges on back.	N2
		N2, and Material certificate for cover flange, diaphragm, capsule body, and blind kidney flange	N3
Wired tag plate		316 SST tag plate wired onto transmitter (Tag No.: Maximum. 16 characters.)	N4
Data configuration at factory*10		Data configuration for HART communication type	Software damping, Descriptor, Message CA
		Data configuration for BRAIN communication type	Software damping CB
European Pressure Equipment Directive*11		PED 2014/68/EU Category: III, Module: H, Type of Equipment: Pressure Accessory-Vessel, Type of Fluid: Liquid and Gas, Group of Fluid: 1 and 2	PE3
Material certificate*12		Cover flange*13	M01
		Cover flange, Process connector*14	M11
		Cover flange, Diaphragm, Capsule body*13*25	MA1
		Cover flange, Process connector, Diaphragm, Capsule body*14*22	MC1
		Cover flange, Bolt and Nut for cover flange, Diaphragm, Capsule body, Vent and Drain plug, Vent screw, Capsule gasket*13*19*21	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 gasket*14*19*21	MH1
Pressure test/ Leak test certificate*15		Test Pressure: 32 MPa(4500 psi)	Nitrogen Gas or Water*16 Retention time: one minute T09
Parameter list*23		List of setting and adjustment parameters	YP
Functional safety(SIL)*24		Low temperature expansion of functional safety Amb.Temp.: -55 to 85°C	SLT

- *1: Not applicable with color change option. Not applicable for amplifier housing code 2.
- *2: Not applicable for amplifier housing code 2 and 3.
- *3: The specification is included in amplifier code 2.
- *4: Applicable for Wetted parts material code S.
- *5: 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.
- *6: Applicable for vertical impulse piping type (Installation code 7) and Wetted parts material code S.
- *7: Applicable for wetted parts material code S; process connection code 5; and installation code 8 and 9. Not applicable for option code U1, N2, N3 and M11. No PTFE is used for wetted parts.
- *8: Applicable for output signal codes D and J. The hardware error indicates faulty amplifier or capsule.
- *9: Applicable for wetted parts material code S; 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.
- *10: Also see 'Ordering Information'.
- *11: If compliance with category III is needed, specify this option code.
- *12: Material traceability certification, per EN 10204 3.1B.
- *13: Applicable for process connections codes 5.
- *14: Applicable for process connections codes 3 and 4.
- *15: The unit on the certificate is always Pa unit regardless of selection of option code D1, D3 or D4.
- *16: Dry nitrogen gas or pure water is used for oil-prohibited use (option codes K1, K2, K5, and K6).
- *17: 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.
- *18: /A2 is not applicable with FM approval.
- *19: Not applicable with plug option code UN.
- *20: Not applicable for installation code -U.
- *21: Not applicable with option code N1, N2, N3 and GS.
- *22: Applicable for option code UN and N1.
- *23: Applicable for output signal code D and J.
- *24: Not applicable for output signal code F, G, and Q.
- *25: Applicable for option code UN, N1 and GS.

DP^{harp} EJA[®]

Indicator with LPS Basic Indicator No Indicator

Local Display

Standard Ultra-low Copper Stainless Steel

Housing

4 to 20mA 1 to 5VDC (Low Power)

Output Signal

BRAIN HART[®] COMMUNICATION PROTOCOL Fieldbus PROFIBUS

Digital Communication

CE FM SP Ex Ex nDIPOL

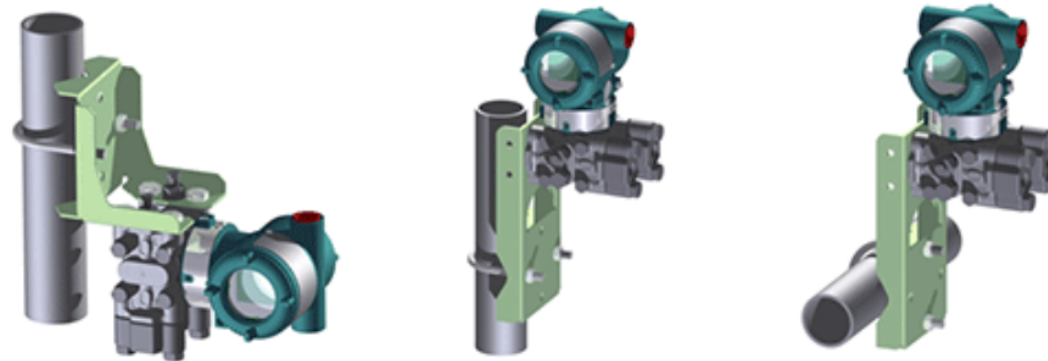
RoHS EAC INMETRO IECEx DNV

ABS Lloyd's Register TÜV Rheinland[®] Pressure Right Exida

Product Certification

Adapters 3-Valve Manifold 5-Valve Manifold

Process Connection



EJA130E Overview

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

Measurement Types	
Primary Variable	Differential Pressure (DP)
Secondary Variable	Static Pressure (SP)
Reference Accuracy	
Primary Variable	±0.055% of DP Span
Secondary Variable	±0.5% of SP Span
Long Term Stability (All Normal Operating Conditions)	
Primary Variable	±0.1% of URL per 10 years
Maximum Pressure Limit (MWP)	
All Capsules	4,500 psi
Over-pressure Effect	
Primary Variable	±0.03% of URL
Rangeability	
Primary Variable	100:1
Burst Pressure	
All Capsules	19,100 psi (132 MPa)
Specification Conformance	
EJX-A Series	±3σ