# User's Manual

# **DPharp EJX Series and EJA-E Series**



Differential Pressure and Pressure Transmitters

Manual Change No.21-35E Rev.1

The following information in regards of EEA description, New IECEx option code and RoHS Directive is revised/added for EJX series and EJA-E series. Please use this manual change for the manuals as listed in below.

#### 1. Applicable Users' Manuals

IM No.(Edition)	Product model	Applicable Part	Applicable item
IM 01C25A01-01E (15)	EJX and EJA-E Series Differential	Safe Use of This Product	2-1 (revise)
	Pressure and Pressure Transmitters		The underlined part is
	Installation Manual		the revised part.
IM 01C25B01-01E (23)	EJX110A, EJX120A, EJX130A, EJX310A,		
	EJX430A, EJX440A, EJA110E, EJA120E,		
	EJA130E, EJA310E, EJA430E, EJA440E	Installation of an Explosion	2-2 (new addition)
IM 01C25C01-01E (16)	EJX210A, EJA210E	Protected Instrument	
IM 01C25F01-01E (17)	EJX510A, EJX530A, EJX610A, EJX630A,		
	EJA510E, EJA530E		
IM 01C25H01-01E (15)	EJX118A, EJX438A, EJA118E, EJA438E		
IM 01C25K01-01E (12)	EJX115A, EJA115E	EU RoHS Directive	2-3 (revise)
IM 01C25R01-01E (18)	EJX910A, EJX930A		The underlined part is the revised part.
IM 01C25T02-01E (17)	DPharp Fieldbus Communication Type		the revised part.
IM 01C25T04-01EN (5)	DPharp PROFIBUS PA Communication Type		
IM 01C25R03-01E (14)	EJX910A and EJX930A		
	Fieldbus Communication Type		

#### 2. Contents of change

# 2-1 Authorized Representative in EEA and the importer into the EU/EEA market

In relation to the CE Marking, the authorized representative for this product in the EEA (European Economic Area) is:

Yokogawa Europe B.V.

Euroweg 2, 3825 HD Amersfoort, The Netherlands and the importer for this product into the EU/EEA market via the YOKOGAWA sales channel is:

Yokogawa Europe B.V.

Euroweg 2, 3825 HD Amersfoort, The Netherlands

# 2-2 Installation of an Explosion Protected Instrument a. IECEx Intrinsically Safe Ex ia

Caution for IECEx Intrinsically safe Ex ia.

Note 1. EJX/EJA-E series pressure transmitters with optional code /SU21 or /SU22 are applicable for use in hazardous locations

#### b. IECEx Flameproof type

Caution for IECEx flameproof type.

Note 1. EJX/EJA-E Series pressure transmitters with optional code /SF22 or /SU22\* are applicable for use in hazardous locations:

- \* /SU22: Except for Fieldbus Communication Type, PROFIBUS PA Type, EJX910A, EJX930
- No. IECEx DEK 14.0046X
- Applicable Standard: IEC60079-0, IEC60079-1, IEC 60079-31
- •Type of Protection and Marking Code:

□Ex db IIC T6...T4 Gb

□Ex tb IIIC T85°C Db

- Enclosure: IP66/IP67
- Enclosure: IP66/IP67
- Temperature Class for gas-poof: T6, T5, and T4
- Ambient Temperature for gas-proof: -50 to 75°C (T6), -50 to 80°C (T5), and -50 to 75°C (T4)
- Process Temperature (Tp.) for gas-proof: -50 to 85°C (T6), -50 to 100°C (T5), and -50 to 120°C (T4)
- Maximum Surface Temperature for dust-proof: T85°C (Tamb.: -30\* to 75°C, Tp.: -30\* to 85°C)
   \* -15°C when /HE is specified.



Note 2. Electrical Data

Supply voltage: 42 V dc max.
 32 V dc max. (FOUNDATION Fieldbus and PROFIBUS PA type)
 9 to 30 V dc, 250 mW (RS485 Modbus

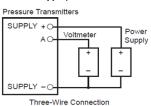
Communication Type)
9 to 28 V dc, 27 mW (Low Power type)

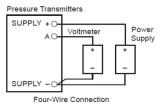
 Output signal: 4 to 20 mA, 15 mA (FOUNDATION Fieldbus and PROFIBUS PA type)
 RS485 Modbus (RS485 Modbus Communication Type), 1 to 5 Vdc (Low Power type)

Note 3. For combined approval types Once a device of multiple approval type is installed, it should not be re-installed using any other approval types. Apply a permanent mark in the check box of the selected approval type on the ertification label on the transmitter to distinguish it from unused approval types.

#### Note 4. Installation

- All wiring shall comply with local installation requirement.
- In order to prevent the earthing conductor from loosening, the conductor must be secured to the terminal, tightening the screw with appropriate torque. Care must be taken not to twist the conductor.
- Cable glands, adapters and/or blanking elements with a suitable IP rating shall be of Ex d IIC/Ex tb IIIC certified by IECEx and shall be installed so as to maintain the specific degree of protection (IP Code) of the equipment.
- Wiring connection for output signal code Q (Low Power type) shall follow the diagram below.





#### • Electrical Connection

A mark indicating the electrical connection type is stamped near the electrical connection port. These marks are as followed.

Screw Size	Marking	
ISO M20 × 1.5 female	ΔM	
ANSI 1/2 NPT female	⚠N or ⚠W	



#### Note 5. Operation

- Keep the "WARNING" label a the transmitter.
- WARNING:
- AFTER DE-ENERGIZING, DELAY 5 MINUTES BEFORE OPENING. WHEN THE AMBIENT TEMP.≥65°C, USE HEAT-RESISTING CABLE AND CABLE GLAND ≥90°C.
- Take care not to generate mechanical sparking when accessing to the instrument and peripheral devices in a hazardous location.

#### Note 6. Maintenance and Repair

- WARNING:
- When maintenance and repair are performed, confirm the following conditions and the then perform works Confirm the power supply is cut off and the voltage of power supply terminal is not supplied.
- Only personnel authorized by Yokogawa Electric Corporation can repair the equipment in accordance with the relevant standards: IEC 60079-19 (Equipment repair, overhaul and reclamation) and IEC 60079-17 (Electrical installation inspection and maintenance); otherwise the certification will be voided.

#### Note 7. Specific Conditions of Use

- WARNING
- Electrostatic charge may cause an explosion hazard.
   Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of the product.
- The flame paths differ from the standard values in IEC 60079-1. Repair of the equipment is only allowed when done by the manufacturer or an authorized representative. the property class of it is A2-50(A4-50) or more.
- For transmitters with a membrane made of titanium, ignition hazard due to impact and friction on the membranes shall be avoided.
- Maximum Surface Temperature for dust-proof: T85°C (Tamb.: -30\* to 75°C, Tp.: -30\* to 85°C)
   \* -15°C when /HE is specified.

#### 2-3 EU-RoHS Directive

Applicable standard: EN IEC 63000

Applicable production sites are shown below. The condition of the RoHS compliant production sites are as follows:

Japan, Germany, Saudi Arabia, <u>UAE</u>, India, <u>USA</u>
The production sites can be confirmed by the serial number shown in the frame of "NO." in the name plate of the product.

Serial numbers (9 letters): AAnnnnnn

AA: Identification code of production site

Japan: Use "91" or "90"

USA: Use "U1" Germany: Use "D1" Saudi Arabia: Use "Y3"

UAE: Use "Y4" India: Use "Y1"

# **DPharp EJX/EJA-E Series**

Differential Pressure and Pressure Transmitters

Manual Change 23-02E

Please use the following information to supplement the users' manual of the EJX/EJA-E series differential pressure and pressure transmitters.

## 1. Applicable Users' Manuals

IM No. (Edition)	Products	Applicable part	Applicable item
IM 01C25C01-01E (16)	EJX210A, EJA210E	(Page 2-4) 2.9 (Page 6-4) 6.4.2(2)	· 2-1 · 2-2
IM 01C25H01-01E (15)	EJX118A, EJX438A, EJA118E, EJA438E	(Page 2-4) 2.9 (Page 5-4) 5.4.2(2)	· 2-1 · 2-2
IM 01C25R01-01E (19)	EJX910A, EJX930A	(Page 3-4) 3.9 (Page 7-4) 7.5.2(2)	· 2-1 · 2-2

### 2. Information to be changed/added

#### 2-1 Update of "CAUTION"

Please update the "CAUTION" as shown below.



#### CAUTION

This instrument has been tested and certified as being intrinsically safe or explosion proof. Please note that severe restrictions apply to this instrument's construction, installation, external wiring, maintenance and repair. A failure to abide by these restrictions could make the instrument a hazard to operate.



## CAUTION

This instrument has been tested and certified as being intrinsically safe or explosionproof. Please note that severe restrictions (e.g. IEC 60079-14) apply to this instrument's construction, installation, external wiring, maintenance and repair. A failure to abide by these restrictions could make the instrument a hazard to operate.

## 2-1 Addition of "IMPORTANT"

Please add the following "IMPORTANT" information to the wiring section.



### **IMPORTANT**

When electrical connection code "7" or "C" is specified, the blanking element at the electrical connection port is provided with sealing tape applied. As using sealing tape is prohibited in the hazardous area Group IIC by the requirements of IEC 60079-14, remove the sealing tape and apply appropriate seal to the blanking element in accordance with IEC 60079-14, if the instrument is used in conjunction with gases allocated to Group IIC.

