

For the products of EJX and EJA-E series with any of the following option codes, please refer to this manual change for handling cautions of ATEX approval.

Model	Option code	Applicable part of this manual change
EJX110A, EJX115A, EJX118A, EJX120A, EJX130A, EJX210A, EJX310A, EJX430A, EJX438A, EJX440A, EJX510A, EJX530A, EJX610A, EJX630A	/KF21, /KS2	( I )
EJX110A, EJX115A, EJX118A, EJX120A, EJX130A, EJX210A, EJX310A, EJX430A, EJX438A, EJX440A, EJX510A, EJX530A, EJX610A, EJX630A, EJA110E, EJA115E, EJA118E, EJA120E, EJA130E, EJA210E, EJA310E, EJA430E, EJA438E, EJA440E, EJA510E, EJA530E	/KS26	( II )

# (I)

## ● ATEX Certification

### (1) Technical Data

#### a. ATEX Intrinsically Safe Type

Caution for ATEX Intrinsically safe type.

Note 1. Model EJX Series pressure transmitters with optional code /KS2 for potentially explosive atmospheres:

- No. KEMA 03ATEX1544 X
- Applicable Standard:  
EN 50014:1997, EN 50020:2002,  
EN 50284:1999, EN 50281-1-1:1998
- Type of Protection and Marking code:  
EEx ia IIC T4
- Group: II
- Category: 1G, 1D
- Ambient Temperature for gas-proof:  
–50 to 60°C
- Process Temperature (Tp.): 120°C max.
- Maximum Surface Temperature for dust-proof:  
T85°C (Tamb.: –40\* to 60°C, Tp.: 80°C)  
T100°C (Tamb.: –40\* to 60°C, Tp.: 100°C)  
T120°C (Tamb.: –40\* to 60°C, Tp.: 120°C)  
\* –15°C when /HE is specified.
- Enclosure: IP66 and IP67

Note 2. Electrical Data

- In type of explosion protection intrinsic safety EEx ia IIC only for connection to a certified intrinsically safe circuit with following maximum values:  
Ui = 30 V, Ii = 200 mA, Pi = 0.9 W,  
Effective internal capacitance; Ci = 10 nF,  
Effective internal inductance; Li = 0 mH

Note 3. Installation

- All wiring shall comply with local installation requirements. (Refer to the installation diagram)

Note 4. Maintenance and Repair

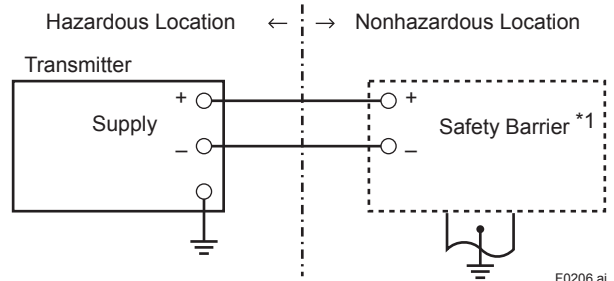
- The instrument modification or parts replacement by other than authorized representative of Yokogawa Electric Corporation is prohibited and will void KEMA Intrinsically safe Certification.

Note 5. Special Conditions for Safe Use

- In the case where the enclosure of the Pressure Transmitter is made of aluminium,

if it is mounted in an area where the use of category 1 G apparatus is required, it must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.

[Installation Diagram]



\*1: In any safety barriers used the output current must be limited by a resistor "R" such that  $I_{maxout} \cdot U_z / R$ .



## WARNING

To satisfy IP66 or IP67, apply waterproof glands to the electrical connection port.

#### b. ATEX Flameproof Type

Caution for ATEX flameproof type.

Note 1. Model EJX Series pressure transmitters with optional code /KF21 for potentially explosive atmospheres:

- No. KEMA 07ATEX0109
- Applicable Standard: EN 60079-0:2006,  
EN 60079-1:2004, EN 61241-0:2006,  
EN 61241-1:2004
- Type of Protection and Marking Code: Ex d  
IIC T6...T4, Ex tD A21 IP6x T85, T100, T120
- Group: II
- Category: 2G, 2D
- Enclosure: IP66 and IP67
- Temperature Class for gas-proof:  
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)
- Maximum Process Temperature (Tp.) for  
gas-proof:  
85°C (T6), 100°C (T5), and 120°C (T4)
- Maximum Surface Temperature for dust-  
proof:  
T85°C (Tamb.: –40\* to 40°C, Tp.: 80°C)  
T100°C (Tamb.: –40\* to 60°C, Tp.: 100°C)  
T120°C (Tamb.: –40\* to 80°C, Tp.: 120°C)  
\* –15°C when /HE is specified.

Note 2. Electrical Data

- Supply voltage: 42 V dc max.
- Output signal: 4 to 20 mA

Note 3. Installation

- All wiring shall comply with local installation requirement.
- The cable entry devices shall be of a certified flameproof type, suitable for the conditions of use.

Note 4. Operation

- Keep the "WARNING" label attached to the transmitter.  
WARNING: AFTER DE-ENERGIZING, DELAY 5 MINUTES BEFORE OPENING. WHEN THE AMBIENT TEMP.  $\geq 65^{\circ}\text{C}$ , USE HEAT-RESISTING CABLES  $\geq 90^{\circ}\text{C}$ .
- Take care not to generate mechanical sparking when accessing to the instrument and peripheral devices in a hazardous location.

Note 5. Maintenance and Repair

- The instrument modification or part replacement by other than an authorized representative of Yokogawa Electric Corporation is prohibited and will void KEMA Flameproof Certification.



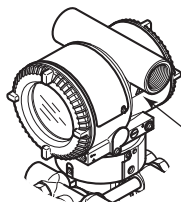
**WARNING**

To satisfy IP66 or IP67, apply waterproof glands to the electrical connection port.

**(2) 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 $\times$ 1.5 female	$\triangle$ M
ANSI 1/2 NPT female	$\triangle$ A or $\triangle$ W



Location of the mark

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**(3) Installation**



**WARNING**

- All wiring shall comply with local installation requirements and the local electrical code.
- There is no need for conduit seal in Division 1 and Division 2 hazardous locations because this product is sealed at the factory.

**(4) Operation**



**WARNING**

- OPEN CIRCUIT BEFORE REMOVING COVER. INSTALL IN ACCORDANCE WITH THIS USER'S MANUAL
- Take care not to generate mechanical sparking when access to the instrument and peripheral devices in a hazardous location.

**(5) Maintenance and Repair**

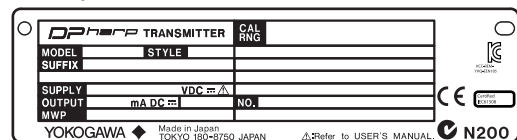


**WARNING**

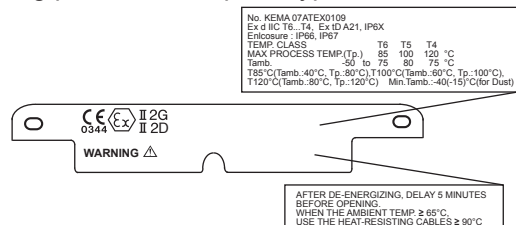
The instrument modification or parts replacement by other than an authorized Representative of Yokogawa Electric Corporation is prohibited and will void the certification.

**(6) Name Plate**

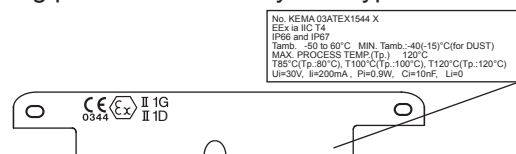
- Name plate



- Tag plate for flameproof type



- Tag plate for intrinsically safe type



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MODEL: Specified model code.  
STYLE: Style code.  
SUFFIX: Specified suffix code.  
SUPPLY: Supply voltage.  
OUTPUT: Output signal.  
MWP: Maximum working pressure.  
CAL RNG: Specified calibration range.  
NO.: Serial number and year of production\*1.  
TOKYO 180-8750 JAPAN:  
The manufacturer name and the address\*2.

\*1: The first digit in the final three numbers of the serial number appearing after "NO." on the nameplate indicates the year of production. The following is an example of a serial number for a product that was produced in 2010:

**91K819857 032**

↑  
The year 2010

\*2: "180-8750" is a zip code which represents the following address.  
2-9-32 Nakacho, Musashino-shi, Tokyo Japan

## ( II )

### ● ATEX Certification

#### (1) Technical Data

##### a. ATEX Intrinsically Safe Type

Caution for ATEX Intrinsically safe type.

Note 1. EJX/EJA-E series pressure transmitters with optional code /KS26 for potentially explosive atmospheres:

- No. KEMA 04ATEX1116 X
- Applicable Standard: EN 60079-0:2009, EN 60079-11:2007/EN 60079-11:2012, EN 60079-26:2007, EN 60079-27:2008, EN 61241-11:2006

Note 2. Ratings

Type of Protection and Marking Code:

Ex ia IIC/IIB T4 Ga

Ex ia IIIC T85°C T100°C T120°C Db

Group: II

Category: 1G, 2D

Ambient Temperature for EPL Ga: -40 to 60°C

Ambient Temperature for EPL Db: -30\* to 60°C

\* -15°C when /HE is specified.

Maximum Process Temperature (Tp.): 120°C

Maximum Surface Temperature for EPL Db.

T85°C (Tp.: 80°C)

T100°C (Tp.: 100°C)

T120°C (Tp.: 120°C)

Ambient Humidity:

0 to 100% (No condensation)

Degree of Protection of the Enclosure:

IP66 / IP67

Electrical Data

- When combined with Trapezoidal and Rectangular output characteristic FISCO model IIC barrier  
Ui = 17.5 V, li = 380 mA, Pi = 5.32 W,  
Ci = 3.52 nF, Li = 0 µH
- When combined with Linear characteristic barrier  
Ui = 24 V, li = 250 mA, Pi = 1.2 W,  
Ci = 3.52 nF, Li = 0 µH
- When combined with Trapezoidal or Rectangular output characteristic FISCO model IIB barrier  
Ui = 17.5 V, li = 460 mA, Pi = 5.32 W,  
Ci = 3.52 nF, Li = 0 µH

### Note 3. Installation

- All wiring shall comply with local installation requirements. (Refer to the installation diagram)

### Note 4. Maintenance and Repair

- The instrument modification or parts replacement by other than authorized representative of Yokogawa Electric Corporation is prohibited and will void DEKRA Intrinsically safe Certification.

### Note 5. Special Conditions for Safe Use

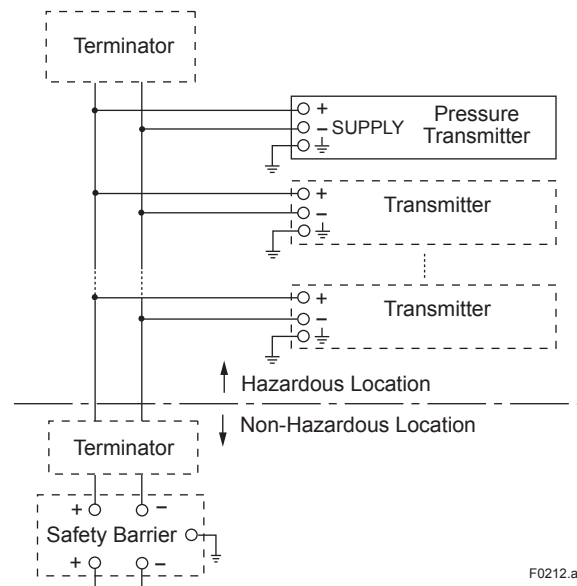


## WARNING

- In the case where the enclosure of the Pressure Transmitter is made of aluminium, if it is mounted in an area where the use of category 1 G apparatus is required, it must be installed such, that even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.
- 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.
- In the case where the enclosure of the Pressure Transmitter is made of aluminum, if it is mounted in an area where the use of category 2D apparatus is required, it shall be installed in such a way that the risk from electrostatic discharges and propagating brush discharges caused by rapid flow of dust is avoided.
- To satisfy IP66 or IP67, apply waterproof glands to the electrical connection port.
- When the lightning protector option is specified, the apparatus is not capable of withstanding the 500V insulation test required by EN60079-11.  
This must be taken into account when installing the apparatus.

### Note 6. Installation Instructions

[Installation Diagram]



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- In the rating 1(\*1), the output current of the barrier must be limited by a resistor 'Ra' such that  $I_o = U_o/R_a$ .
- In the rating 2(\*2), the output of the barrier must be the characteristics of the trapezoid or the rectangle and this transmitter can be connected to Fieldbus equipment which are in according to the FISCO model.
- The terminators may be built in by a barrier.
- More than one transmitter may be connected to the power supply line.
- The terminator and the safety barrier shall be certified.

#### Electrical data:

Maximum Input Voltage  $U_i$ : 24 V  
Maximum Input Current  $I_i$ : 250 mA  
Maximum Input Power  $P_i$ : 1.2 W  
Maximum Internal Capacitance  $C_i$ : 3.52 nF  
Maximum Internal Inductance  $L_i$ : 0  $\mu$ H

\*1:  
Rating 1

or

Maximum Input Voltage  $U_i$ : 17.5 V  
Maximum Input Current  $I_i$ : 380 mA  
Maximum Input Power  $P_i$ : 5.32 W  
Maximum Internal Capacitance  $C_i$ : 3.52 nF  
Maximum Internal Inductance  $L_i$ : 0  $\mu$ H

\*2:  
Rating 2

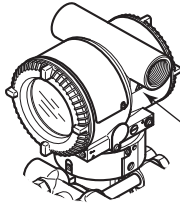
or

Maximum Input Voltage  $U_i$ : 17.5 V  
Maximum Input Current  $I_i$ : 460 mA  
Maximum Input Power  $P_i$ : 5.32 W  
Maximum Internal Capacitance  $C_i$ : 3.52 nF  
Maximum Internal Inductance  $L_i$ : 0  $\mu$ H

## (2) Electrical Connection

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

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



Location of the mark

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## (3) Installation



### WARNING

- All wiring shall comply with local installation requirements and the local electrical code.
- There is no need for a conduit seal in Division 1 and Division 2 hazardous locations because this product is sealed at the factory.

## (4) Operation



### WARNING

- OPEN CIRCUIT BEFORE REMOVING COVER. INSTALL IN ACCORDANCE WITH THIS USER'S MANUAL
- Take care not to generate mechanical sparking when accessing the instrument and peripheral devices in a hazardous location.

## (5) Maintenance and Repair

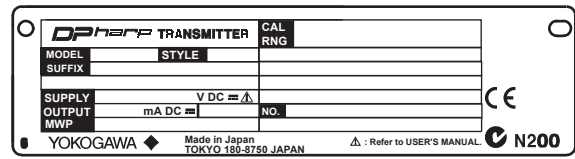


### WARNING

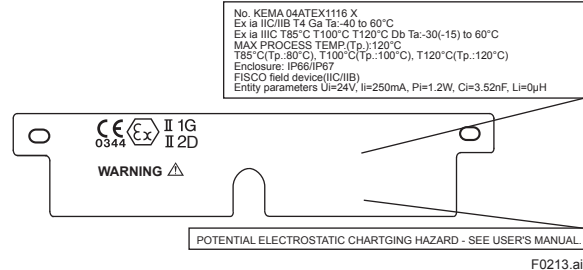
The instrument modification or part replacement by other than an authorized Representative of Yokogawa Electric Corporation is prohibited and will void the certification.

## (6) Name Plate

- Name plate



- Tag plate for intrinsically safe type



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STYLE: Style code.

SUFFIX: Specified suffix code.

SUPPLY: Supply voltage.

OUTPUT: Output signal.

MWP: Maximum working pressure.

CAL RNG: Specified calibration range.

NO.: Serial number and year of production\*1.

TOKYO 180-8750 JAPAN:

The manufacturer name and the address\*2.

\*1: The first digit in the final three numbers of the serial number appearing after "NO." on the name plate indicates the year of production. The following is an example of a serial number for a product that was produced in 2010:

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The year 2010

\*2: "180-8750" is the Zip code for the following address.  
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