User's **Manual**

EJX/EJA-E Series



[Option code: /NF2, /NF21, /NS21, /NS24 and /NS25]

Manual Change No.22-25E

The following information in regards of optional code for NEPSI certification are added for EJX series and EJA-E series. Please use this manual change for the manuals as listed in below.

Applicable Users' Manuals

IM No. (Edition)	Document Name	Applicable Part	Applicable item
) / C	EJX/EJA-E series NEPSI Certification [Option code: /NF2, /NF21, /NS21, /NS24 and /NS25]	2. NEPSI Certification a. NEPSI Flameproof Type (/NF2) b. NEPSI Flameproof Type (/NF21)	Change descriptions in case of certificate number GYJ22.1941X

2 Contents of change

Change as follows in case of certificate number GYJ22.1941X for /NF2 or /NF21.

2. NEPSI Certification

a. NEPSI Flameproof Type (/NF2)

Caution for NEPSI flameproof type

- Note 1. Model EJX/EJA-E Series differential, gauge, and absolute pressure transmitters with optional code /NF2 are applicable for use in hazardous locations:
 - Certificate No.: GYJ22.1941X
 - Applicable Standard: GB/T 3836.1-2021, GB/T 3836.2-2021
 - Type of Protection and Marking Code: Ex db IIC T6...T4 Gb
 - Enclosure: IP66/IP67
 - Ambient Temperature:

Electrical connection code 2,4,7,9,C and D -50 to +75°C (T4), -50 to +80°C (T5), and -50 to +75°C (T6)

Electrical connection code 0,5,A and F -40 to +60°C

• Process Temperature (Tp.):

Electrical connection code 2,4,7,9,C and D -50 to +120°C (T4), -50 to +100°C (T5), and -50 to +85°C (T6)

Electrical connection code 0,5,A and F -40 to +120°C (T4), -40 to +100°C (T5), and -40 to +85°C (T6)

- Supply Voltage: 42 V dc max.
 - 32 V dc max. (FOUNDATION Fieldbus and PROFIBUS PA type)
 - 9 to 28 V dc, 27 mW (Low Power type)
 - 9 to 30 V dc, 250 mW (RS485 Modbus Communication Type)
- Output Signal: 4 to 20 mA dc
 - 15 mA (FOUNDATION Fieldbus and PROFIBUS PA type)

 - 1 to 5 V (Low Power type)
 - RS485 Modbus (RS485 Modbus
 - Communication Type)
- · Slave module type, output signal code "S", is only to be connected to Master module type, output signal code "P", for power supply and communication by a 4-wire connection.

Note 2. Wiring

- In hazardous locations, the cable entry devices shall be of a certified flameproof type, suitable for the conditions of use and correctly installed.
- · Unused apertures shall be closed with suitable flameproof certified blanking elements. (The plug attached is certificated as the flame proof IP66/IP67 as a part of this apparatus.)
- In case of ANSI 1/2 NPT plug, ANSI hexagonal wrench should be applied to screw in.
- The external earth connection facility shall be connected reliably.



Note 3. Operation

WARNING:

Output signal code except P or S AFTER DE-ENERGIZING, DELAY 5 MINUTES BEFORE OPENING.

Output signal code P or S
AFTER DE-ENERGIZING, DELAY 10
MINUTES BEFORE OPENING.

• WARNING:

WHEN AMBIENT TEMPERATURE ≥ 65°C, USE THE HEAT-RESISTING CABLES AND CABLE GLAND ≥ 90°C.

- Take care not to generate mechanical sparking when accessing to the instrument and peripheral devices in a hazardous location.
- WARNING:

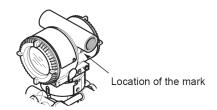
Electrostatic charge may cause an explosion hazard. Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of the product.

Note 4. Maintenance and Repair

- The instrument modification or repair by other than personnel authorized by Yokogawa Electric Corporation is prohibited and will void NEPSI Certification.
- A modification of the equipment would no longer comply with the construction described in the certificate documentation.
- Electrical Connection
 A mark indicating the electrical connection type is stamped near the electrical connection port.

 These marks are as followed.

Screw Size	Marking	
JIS G1/2	\triangle	
ISO M20 x 1.5	ΔM	
ANSI 1/2NPT	<u></u>	



Note 5. Special Condition for safe use



WARNING

- The flame paths differ from the standard values in GB/T 3836.2-2021. Repair of the equipment is only allowed when done by the manufacture or authorized representative.
- The property class of the fasteners used to fasten the transmitter enclosure onto the sensor capsule is at least A*-50.
- For transmitters with a membrane made of titanium, ignition hazard due to impact and friction on the membranes shall be avoided.

Note 6. Conditions for safe use

- In case of M20×1.5 or 1/2 14 NPT thread type cable entry, cable glands, adapters and/or blanking elements with a suitable IP rating shall be of Ex db IIC certified for GBEX and shall be installed so as to maintain the specific degree of protection (IP Code) of the equipment. If the thread tpe of cable entry is G1/2, only cable gland and/or blanking elements supplied by the manufacturer should be used.
- Forbid end user to change the configuration to ensure the equipment's explosion protection performance.
- When installation, use and maintenance of preessure transmitter, observe following standards
 - GB/T 3836.13-2021 "Explosive atmospheres Part 13: Equipment repair, overhaul and reclamation"
 - GB/T 3836.15-2017 "Explosive atmospheres Part 15: Electrical installations design, selection and erection"
 - GB/T 3836.16-2017 "Explosive atmospheres Part 16: Electrical installations inspection and maintenance"
 - GB 50257-2014 "Code for construction and acceptance of electric equipment on fire and explosion hazard electrical equipment installation engineering"

b. NEPSI Flameproof Type and Dust Ignition proof Type (/NF21)

Caution for NEPSI flameproof type.

- Note 1. Model EJX/EJA-E Series differential, gauge, and absolute pressure transmitters with optional code /NF21 are applicable for use in hazardous locations:
 - Certificate No.: GYJ22.1941X
 - Applicable Standard: GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.31-2021
 - Type of Protection and Marking Code: Ex db IIC T6...T4 Gb Ex tb IIIC T85°C Db
 - Enclosure: IP66/IP67
 - 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.
 - Supply voltage: 42 V dc max.
 32 V dc max. (FOUNDATION Fieldbus and PROFIBUS PA type)
 - 9 to 28 V dc, 27 mW (Low Power type) 9 to 30 V dc, 250 mW (RS485 Modbus Communication Type)
 - Output signal: 4 to 20 mA dc
 15 mA (FOUNDATION Fieldbus and PROFIBUS PA type)
 1 to 5 V (Low Power type)
 RS485 Modbus (RS485 Modbus Communication Type)
 - Slave module type, output signal code "S", is ony to be connected to Master module type, output signal code "P", for power supply and communication by a 4-wire connection.

Note 2. Wiring

- In hazardous locations, the cable entry devices shall be of a certified flameproof type, suitable for the conditions of use and correctly installed.
- Unused apertures shall be closed with suitable flameproof certified blanking elements. (The plug attached is certificated as the flame proof IP66/IP67 as a part of this apparatus.)
- In case of ANSI 1/2 NPT plug, ANSI hexagonal wrench should be applied to screw in.
- The external earth connection facility shall be connected reliably

Note 3. Operation

• WARNING:

Output signal code except P or S
AFTER DE-ENERGIZING, DELAY 5 MINUTES
BEFORE OPENING.

Output signal code P or S
AFTER DE-ENERGIZING, DELAY 10.
MINUTES BEFORE OPENING

- WARNING:
- WHEN AMBIENT TEMPERATURE ≥ 65°C, USE THE HEAT-RESISTING CABLES AND CABLE GLAND ≥ 90°C.
- Take care not to generate mechanical sparking when accessing to the instrument and peripheral devices in a hazardous location.
- WARNING:

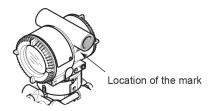
Electrostatic charge may cause an explosion hazard. Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of the product.

Note 4. Maintenance and Repair

- The instrument modification or repair by other than personnel authorized by Yokogawa Electric Corporation is prohibited and will void NEPSI Certification.
- A modification of the equipment would no longer comply with the construction described in the certificate documentation.
- 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 x 1.5 female	ΔM	
ANSI 1/2NPT female	<u></u>	



Note 5. Special Condition for safe use



- The flame paths differ from the standard values in GB/T 3836.2-2021. Repair of the equipment is only allowed when done by the manufacture or authorized representative.
- The property class of the fasteners used to fasten the transmitter enclosure onto the sensor capsule is at least A*-50.
- For transmitters with a membrane made of titanium, ignition hazard due to impact and friction on the membranes shall be avoided.

Note 6. Conditions for safe use

- Cable glands, adapters and/or blanking elements with a suitable IP rating shall be of Ex db IIC/Ex tb IIIC certified for GBEX and shall be installed so as to maintain the specific degree of protection (IP Code) of the equipment.
- When installing the equipment, the selected Type of Protection should be ticked as follows.

☑ Ex db IIC T6...T4 Gb

- ☐ Ex tb IIIC T85 °C Db
- Forbid end user to change the configuration to ensure the equipment's explosion protection performance.
- When installation, use and maintenance of pressure transmitter, observe following standards GB/T 3836.13-2021 "Explosive atmospheres -Part 13: Equipment repair, overhaul and reclamation"
 - GB/T 3836.15-2017 "Explosive atmospheres -Part 15: Electrical installations design, selection and erection"
 - GB/T 3836.16-2017 "Explosive atmospheres Part 16: Electrical installations inspection and maintenance"
 - GB 50257-2014 "Code for construction and acceptance of electric equipment on fire and explosion hazard electrical equipment installation engineering"
 - GB15577-2018 "Safety regulations for dust explosion prevention and protection"