
**User's
Manual**

***DP*harp**

**EJA Series
NEPSI Certification**

[Option code: /NS2 and /NF2]

IM 01C22A00-12E

vigilantplant.™

1. INTRODUCTION

Thank you for purchasing the DPharp electronic pressure transmitter.

This manual contains important note and handling cautions for the DPharp EJA Series Differential Pressure/Pressure Transmitters with NEPSI certification, option code /NS2 and /NF2.

Refer to each of the following user's manuals for standard specifications, functions, handling cautions, and operations, etc.

Table 1 List of Individual User's Manuals

Model	Document No.
EJA110A, EJA120A, and EJA130A	IM 01C21B01-01E
EJA210A and EJA220A	IM 01C21C01-01E
EJA310A, EJA430A, and EJA440A	IM 01C21D01-01E
EJA510A and EJA530A	IM 01C21F01-01E
EJA110 and EJA120	IM 01C22B01-01E
EJA210 and EJA220	IM 01C22C01-01E
EJA310 and EJA430	IM 01C22D01-01E
EJA118W, EJA118N, and EJA118Y	IM 01C22H01-01E
EJA438W and EJA438N	IM 01C22J01-01E
EJA115	IM 01C22K01-01E

T01.EPS

2. NEPSI Certification

a. NEPSI Intrinsically Safe Type

Caution for NEPSI Intrinsically safe type.

Note 1. Model EJA Series differential, gauge, and absolute pressure transmitters with optional code /NS2 are applicable for use in hazardous locations

- Applicable Standard: GB3836.1:2000, GB3836.4:2000
- Type of Protection and Marking Code: Ex ia IIC T4
- Ambient Temperature : -40 to 60°C
- Max. Process Temp.: 120°C
- Enclosure: IP67

Note 2. Entity Parameters

- Intrinsically safe ratings are as follows:
 - Maximum Input Voltage (U_i) = 30 V
 - Maximum Input Current (I_i) = 165 mA
 - Maximum Input Power (P_i) = 0.9 W
 - Maximum Internal Capacitance (C_i) = 22.5 nF
 - Maximum Internal Inductance (L_i) = 730 μ H
 - Maximum Internal Inductance (L_i) = 730 μ H

• Installation Requirements

$U_o \leq U_i$, $I_o \leq I_i$, $P_o \leq P_i$,
 $C_o \geq C_i + C_{cable}$, $L_o \geq L_i + L_{cable}$
 U_o , I_o , P_o , C_o , and L_o are parameters of barrier.

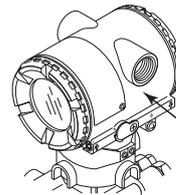
Note 3. Installation

- In any safety barrier used output current must be limited by a resistor 'R' such that $I_o = U_o/R$.
- The safety barrier must be NEPSI certified.
- Input voltage of the safety barrier must be less than 250 Vrms/Vdc.
- The instrument modification or parts replacement by other than authorized representative of Yokogawa Electric Corporation and will void NEPSI Intrinsically safe certification.
- The cable entry devices and blanking elements for type n shall be of a certified type providing a level of ingress protection of at least IP54, suitable for the conditions of use and correctly installed.
- Electrical Connection:

The type of electrical connection is stamped near the electrical connection port according to the following marking.

Screw Size	Marking
ISO M20×1.5 female	\triangle M
ANSI 1/2 NPT female	\triangle A

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Location of the marking

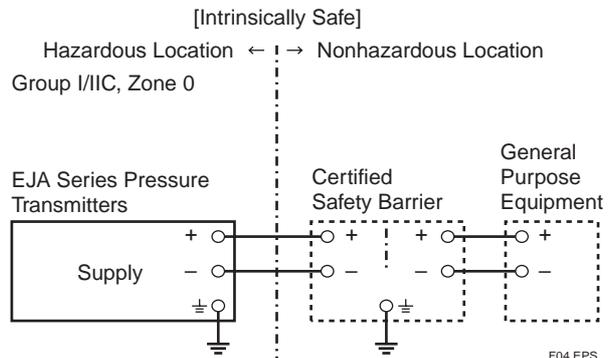
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Note 4. Operation

- **WARNING:**
 WHEN AMBIENT TEMPERATURE $\geq 55^\circ\text{C}$,
 USE THE HEAT-RESISTING CABLES $\geq 90^\circ\text{C}$.

Note 5. Special Conditions for Safe Use

- **WARNING:**
 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 ZONE 0 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.



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b. NEPSI Flameproof Type

Caution for NEPSI flameproof type.

Note 1. Model EJA Series differential, gauge, and absolute pressure transmitters with optional code /NF2 are applicable for use in hazardous locations:

- Applicable Standard: GB3836.1:2000, GB3836.2:2000
- Type of Protection and Marking Code: Ex d IIC T6...T4
- Enclosure: IP67
- Maximum Process Temperature: 120°C (T4), 100°C (T5), 85°C (T6)
- Ambient Temperature: -40 to 75°C (T4), -40 to 80°C (T5), -40 to 75°C (T6)
- Supply Voltage: 42 V dc max.
- Output Signal: 4 to 20 mA dc

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 IP67 as a part of this apparatus.)
- In case of ANSI 1/2 NPT plug, ANSI hexagonal wrench should be applied to screw in.

Note 3. Operation

- WARNING:
AFTER DE-ENERGIZING, DELAY 10 MINUTES BEFORE OPENING.
- WARNING:
WHEN AMBIENT TEMPERATURE $\geq 70^{\circ}\text{C}$, USE THE 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 4. Maintenance and Repair

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

Revision Record

January 2007	1st edition	New Publication
June 2011	2nd edition	Delete certificaion No.