Please use attached sheets for the pages listed below in IM 1E10B0-01E (10th).

<table>
<thead>
<tr>
<th>Page</th>
<th>Contents</th>
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</thead>
<tbody>
<tr>
<td>Page 12-1 to 12-4</td>
<td>Applicable Standard and Certificate No are added in each Ex-proof Technical Data description.</td>
</tr>
<tr>
<td>12. EXPLOSION PROTECTED TYPE INSTRUMENT</td>
<td></td>
</tr>
</tbody>
</table>
12. EXPLOSION PROTECTED TYPE INSTRUMENT

In this section, further requirements and differences for explosion proof type instrument are described. For explosion proof type instrument, the description in this chapter is prior to other description in this User’s Manual.

**NOTE**

The terminal box cover and display cover is locked by special screw. In case of opening the cover, please use the Hexagonal Wrench attached.

**CAUTION**

Be sure to lock the cover with the special screw using the Hexagonal Wrench attached after tightening the cover.

12.1 CENELEC ATEX(KEMA)

**WARNING**

Only trained persons use this instrument in industrial locations.

(1) Technical Data

Applicable Standard:
EN50014, EN50018, EN50020, EN50028, EN60529, EN61010-1
Certificate: KEMA 98ATEX3230
Group: II
Category: 2G
Type of Protection: EEx dm[ia] II C T6..T3
Electrode Circuit Um; 250Vac/dc
Excitation Circuit; 41V max. 6/6.25Hz
Temp. Class; T6 T5 T4 T3
Process Temp.; 70 85 120 130°C
Enclosure; IP67
Ambient Temp.: -20 to 60°C (refer to note below)
Maximum power supply voltage: 250 Vac/ 110 Vdc
Note: The minimum temperature is -10°C in case of the 40mm or larger sizes with the carbon steel flange connection or wafer connection.

(2) Electrical Connection

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

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO M20x1.5 female</td>
<td>△ M</td>
</tr>
<tr>
<td>ANSI 1/2NPT female</td>
<td>△ A</td>
</tr>
<tr>
<td>DIN Pg13.5 female</td>
<td>△ D</td>
</tr>
</tbody>
</table>

(3) Installation

**WARNING**

• All wiring shall comply with local installation requirements and local electrical code.
• 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 flameproof certified.)

(4) Operation

**WARNING**

• Wait 10 min. after power is turned off, before opening the covers.
• Take care not to generate mechanical spark when access to the instrument and peripheral devices in hazardous locations.

(5) Maintenance and Repair

**WARNING**

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

(1) Technical Data
Applicable Standard:
FM 3600, FM 3610, FM 3615, FM 3810,
NEMA 250
Explosionproof for Class I Division 1 Groups A, B, C and D. Dust-ignitionproof for Class II/III Division 1 Groups E, F and G. Leads factory sealed.
Intrinsically safe (electrodes) for Class I Division 1 Groups A, B, C & D
Electrode Circuit Vmax: 250V ac/dc

<table>
<thead>
<tr>
<th>Temperature Code</th>
<th>Maximum Ambient Temperature</th>
<th>Maximum Process Temperature</th>
<th>Minimum Process Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6</td>
<td>+60°C</td>
<td>+70°C</td>
<td>-40°C</td>
</tr>
<tr>
<td>T5</td>
<td>+60°C</td>
<td>+85°C</td>
<td>-40°C</td>
</tr>
<tr>
<td>T4</td>
<td>+60°C</td>
<td>+120°C</td>
<td>-40°C</td>
</tr>
<tr>
<td>T3</td>
<td>+60°C</td>
<td>+130°C</td>
<td>-40°C</td>
</tr>
</tbody>
</table>

Enclosure: NEMA 4X
Ambient Temperature: -20 to +60°C
Maximum power supply voltage: 250 Vac/ 110 Vdc
Maximum Working Pressure: 4MPa(SE115N to SE205N), 2MPa(SE208N to SE220N)
Flange rating should be also considered.

(2) Wiring

**WARNING**

- All wiring shall comply with National Electrical Code ANSI/NFPA 70 and local electrical code.
- There is no need of conduit seal for both of Division 1 and Division 2 hazardous locations because this product is sealed at factory.

(3) Operation

**WARNING**

- OPEN CIRCUIT BEFORE REMOVING COVER. INSTALL IN ACCORDANCE WITH THE INSTRUCTION MANUAL IM1E10B0-01E.
- Take care not to generate mechanical spark when access to the instrument and peripheral devices in hazardous locations.

(4) Maintenance and Repair

**WARNING**

The instrument modification or parts replacement by other than authorized representative of Yokogawa Electric Corporation is prohibited and will void the approval of Factory Mutual Research Corporation.
12. EXPLOSION PROTECTED TYPE INSTRUMENT

12.3 CSA

(1) Technical Data

Applicable Standard:
- C22.2 No 0, C22.2 No 0.4, C22.2 No 0.5,
- C22.2 No 25, C22.2 No 30, C22.2 No 94,
- C22.2 No 157, C22.2 No 1010.1
Certificate: 1221381
Class I, Groups B, C and D; Class II, Groups E, F
and G; Class III; Encl Type 4X
Electrodes: Intrinsically Safe, Ex ia, Class I, Groups
A, B, C and D
When installed in Class I, Division 2 locations -
Seals No Required.
Electrode Circuit Vmax : 250V ac/dc
Excitation Circuit : 41V max. 6/6.25Hz

<table>
<thead>
<tr>
<th>Temperature Code</th>
<th>Maximum Ambient Temperature</th>
<th>Maximum Process Temperature</th>
<th>Minimum Process Temperature</th>
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<tbody>
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</tr>
<tr>
<td>T3</td>
<td>+60°C</td>
<td>+130°C</td>
<td>-40°C</td>
</tr>
</tbody>
</table>

 Ambient Temperature: -20 to +60°C
Maximum power supply voltage: 250 Vac/ 110 Vdc
Maximum Working Pressure: 4MPa(SE115N to
SE205N), 2MPa(SE208N to SE220N)
Flange rating should be also considered.

(2) Wiring

WARNING
All wiring shall comply with Canadian Electrical
Code Part I and Local Electrical Codes.
Note a warning label worded as follows.
Warning : A SEAL SHALL BE INSTALLED
WITHIN 50cm OF THE
ENCLOSURE.
UN SELLEMENT DOIT ÊTRE
INSTALLÉ À MOINS DE 50cm DU
BOÎTIER.
When installed in Class I, Division 2, “SEALS
NO REQUIRED.”

(3) Operation

WARNING
Note a warning label worded as follows.
Warning : OPEN CIRCUIT BEFORE REMOV-
ING COVER.
OUVRIR LE CIRCUIT AVANT D’EN
LEVER LE COUVERCLE.
Take care not to generate mechanical spark
when access to the instrument and peripheral
devices in hazardous locations.

(4) Maintenance and Repair

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

12.4 SAA

(1) Technical Data

Applicable Standard:
- AS 2380.1, AS2380.2, AS2380.7, AS 2431,
- AS1939
Certificate: AUS Ex 3764X
Type of Protection: Ex d m ia II C T6...T3
Enclosure Type: IP67
Excitation Circuit: 41V max. 6/6.25Hz
Electrode Circuit Um: 250V ac/dc

<table>
<thead>
<tr>
<th>Temperature Code</th>
<th>Maximum Ambient Temperature</th>
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</tr>
<tr>
<td>T3</td>
<td>+60°C</td>
<td>+130°C</td>
<td>-40°C</td>
</tr>
</tbody>
</table>

 Ambient Temperature: -20 to +60°C
Maximum power supply voltage: 250 Vac/ 110 Vdc

(2) Installation

WARNING
- All wiring shall comply with local installation
requirements and local electrical code.
- In hazardous locations, the cable entry devices
shall be of a certified flameproof type, suitable
for the conditions of use and correctly
installed.
(3) Operation

⚠️ WARNING

• Open circuit before opening the covers.
• Take care not to generate mechanical spark when access to the instrument and peripheral devices in hazardous locations.

(4) Maintenance and Repair

⚠️ WARNING

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