Rosemount™ 8750W IECEx and ATEX Approval Document
### Rosemount 8750W Magnetic Flowmeter Platform

<table>
<thead>
<tr>
<th>Order Code</th>
<th>8750W Magnetic Flowmeter Platform Rating</th>
<th>Region</th>
<th>Agency</th>
<th>Certification Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Ordinary Locations*</td>
<td>USA, Canada, EU, CU**</td>
<td>CSA, EAC</td>
<td>70081467X(CSA)</td>
</tr>
<tr>
<td>Z1</td>
<td>ATEX Non-Sparking or Increased Safety and Dust for Non-Flammable Fluids</td>
<td>EU</td>
<td>DEKRA</td>
<td>15ATEX0003 X</td>
</tr>
<tr>
<td>ND</td>
<td>ATEX Dust</td>
<td>EU</td>
<td>DEKRA</td>
<td>15ATEX0003 X</td>
</tr>
<tr>
<td>Z2</td>
<td>InMetro Non-Sparking and Dust for Non-Flammable Fluids</td>
<td>Brazil</td>
<td>DNV GL - INMETRO</td>
<td>DNV 18.0082 X</td>
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<tr>
<td>Z3</td>
<td>NEPSI Non-Sparking and Dust for Non-Flammable Fluids</td>
<td>China</td>
<td>NEPSI</td>
<td>GYJ15.1228X</td>
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<tr>
<td>Z5</td>
<td>DIP (Dust-Ignitionproof) Class II and III, Div 1. Non-Incendive, Class I Div 2 for Non-Flammable Fluids</td>
<td>USA</td>
<td>CSA</td>
<td>70081467X(CSA)</td>
</tr>
<tr>
<td>Z6</td>
<td>DIP (Dust-Ignitionproof) Class II and III, Div 1. Non-Incendive, Class I Div 2 for Non-Flammable Fluids</td>
<td>USA &amp; Canada</td>
<td>CSA</td>
<td>70081467X.X</td>
</tr>
<tr>
<td>Z7</td>
<td>IECEx Non-Sparking or Increased Safety and Dust for Non-Flammable Fluids</td>
<td>Global</td>
<td>DEKRA</td>
<td>IECEx DEK 15.0001X</td>
</tr>
<tr>
<td>NF</td>
<td>IECEx Dust</td>
<td>Global</td>
<td>DEKRA</td>
<td>IECEx DEK 15.0001X</td>
</tr>
<tr>
<td>Z9</td>
<td>KTL Non-Sparking and Dust for Non-Flammable Fluids</td>
<td>Korea</td>
<td>KTL</td>
<td>***</td>
</tr>
</tbody>
</table>

*Complies with only the local country Product safety, Electromagnetic, Pressure and other applicable regulations. Cannot be used in a classified or zoned hazardous location environment.

** Customs Union (Russia, Belarus and Kazakhstan)

*** Future
Approval Markings and Logos

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Marking or Symbol Name</th>
<th>Region</th>
<th>Meaning of Marking or Symbol</th>
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<tbody>
<tr>
<td>CE</td>
<td>European Union</td>
<td></td>
<td>Compliance with all applicable European Union Directives.</td>
</tr>
<tr>
<td>ATEX</td>
<td>European Union</td>
<td></td>
<td>Compliance with Equipment and Protective systems intended for use in Potentially Explosive Atmospheres directive (ATEX) (94/9/EC)</td>
</tr>
<tr>
<td>C-tick</td>
<td>Australia</td>
<td></td>
<td>Compliance with Australian applicable electromagnetic compatibility standards</td>
</tr>
<tr>
<td>CSA</td>
<td>US = United States, C = Canada</td>
<td></td>
<td>Indicates that the product was tested and has met the applicable certification requirements for the noted countries.</td>
</tr>
<tr>
<td>EAC</td>
<td>Eurasian Conformity (EAC)</td>
<td>Eurasian Customs Union (Russia, Belarus and Kazakhstan)</td>
<td>Compliance with all of the applicable technical regulations of the EAC Customs Union</td>
</tr>
<tr>
<td>DNV GL - INMETRO</td>
<td>Brazil</td>
<td></td>
<td>Compliance with all of the applicable technical regulations of Brazil.</td>
</tr>
<tr>
<td>NEPSI</td>
<td>China</td>
<td></td>
<td>Compliance with all of the applicable technical regulations of China.</td>
</tr>
<tr>
<td>KTL</td>
<td>Korea</td>
<td></td>
<td>Compliance with all of the applicable technical regulations of Korea.</td>
</tr>
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</table>

Ordinary Location labels will be marked with CE, C-tick, CSA and EAC logos.

European Directive Information

The most recent revision of the EU Declaration of Conformity can be found at [www.emerson.com](http://www.emerson.com).
Certifications

Canadian Standards Association (CSA)

Ordinary Location Certification
The transmitter and flowtube have been examined and tested to determine that the design meets basic electrical, mechanical, and fire protection requirements by CSA, a nationally recognized testing laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations – To Canadian Requirements.

Z6, Z5  Class I, Division 2, Groups A, B, C and D; T4 (Non-Incendive)
ZC  Ex nA [ic] IIC T4 Gc (Transmitter – DC Powered Only)
ZC  Ex ec [ic] IIC T4 Gc (Transmitter – DC Powered Only)
ZC  Ex nA ic [ic] IIC T4 Gc (8750WDMW Transmitter – DC Powered Only)
ZC  Ex ec ic [ic] IIC T4 Gc (8750WDMW Transmitter – DC Powered Only)
ZC  Ex nA ic IIC T5...T4 Gc (Flow Tube)
ZC  Ex ec ic IIC T5...T4 Gc (Flow Tube)
Z6, Z5  Class II, Division 1, Groups E, F and G, T5; Class III (Dust Ignition Proof)
ZC  Ex tc IIIC T80 °C…T130 °C Dc (Transmitter and Flow Tube)
ZC  Ex tc IIIC T80 °C Dc (8750WDMW Transmitter)

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations – To US Requirements

Z6, Z5  Class I, Division 2, Groups A, B, C and D; T4 (Non-Incendive)
ZC  Class I, Zone 2, AEx nA [ic] IIC T4 Gc (Transmitter – DC Powered Only)
ZC  Class I, Zone 2, AEx ec [ic] IIC T4 Gc (Transmitter – DC Powered Only)
ZC  Class I, Zone 2, AEx nA ic [ic] IIC T4 Gc (8750WDMW Transmitter – DC Powered Only)
ZC  Class I, Zone 2, AEx ec ic [ic] IIC T4 Gc (8750WDMW Transmitter – DC Powered Only)
ZC  Class I, Zone 2, AEx nA ic IIC T5...T4 Gc (Flow Tube)
ZC  Class I, Zone 2, AEx ec ic IIC T5...T4 Gc (Flow Tube)
Z6, Z5  Class II, Division 1, Groups E, F and G, T5; Class III (Dust Ignition Proof)
ZC  Class II, Zone 22, AEx tc IIIC T80°C… 130°C Dc (Transmitter and Flow Tube)
ZC  Ex tc IIIC T80 °C Dc (8750WDMW Transmitter)

8750W Magnetic Flowtube and Transmitter
Z6, Z5  All Flowtubes and Integral or Remote Mount Transmitters (Transmitter mount codes T or R)
Non-Incendive for Class I, Division 2, Groups ABCD: T4
Dust-Ignition Proof for Class II/III, Division 1, Groups EFG: T5
-29°C ≤ Ta ≤ 60°C
Enclosure Type 4X, IP66/68/69K (IP68 flowtube only with Remote mount transmitter)
Install per drawing 8750W-1051

8750W Magnetic Flowtube and Transmitter
Z6, Z5  All Flowtubes and Wall Mount Transmitter (Transmitter mount code W)
Non-Incendive for Class I, Division 2, Groups ABCD: T4
Dust-Ignition Proof for Class II/III, Division 1, Groups EFG: T4
-29°C ≤ Ta ≤ 40°C
Enclosure Type 4X, IP66/68/69K (IP68 flowtube only; IP69K Transmitter mount code WDMW)
Install per drawing 8750W-1051
Special Conditions of Safe Use for Class/Division

1. Flow tube to be used only in a non-flammable process.

Special Conditions for Safe Use (X) for Class Zone:

1. When “Special Paint Systems” are applied, instructions for safe use regarding potential electrostatic charging hazard have to be followed.
2. Conduit entries must be installed to maintain the enclosure ingress rating of IP66 (Transmitter and Flow Tube), IP68 (Flow Tube) or IP69K (Flow Tube or 8750W…W transmitter) as applicable.
3. Terminals for the output signals of the Magnetic Flow Transmitters, cannot withstand the 500 V isolation test between signal and ground, due to integral transient protection. This must be taken into account upon installation.
4. When utilizing the keypad of Magnetic Flow Transmitter Model 8750W…W, instructions for safe use regarding potential electrostatic charging hazard have to be followed.
1. Equipment Markings – See section VI in the tables on the following pages
   a. Type Examination Certificate (ATEX): DEKRA 15ATEX0003 X
   b. Certificate of Conformity (IECEx): IECEx DEK 15.0001X

2. Required Documentation:
   a. 8750W-2052 Installation Drawing Model 8750W ATEX/IECEx Hazardous (Ex) Locations

3. Referenced Documentation:
   a. 00825-0X00-4444.pdf, Transmitter Quick Installation Guide (Where X = Communications Protocol Code)
   b. 00825-0300-4750.pdf, Sensor Quick Installation Guide

4. The Required and Referenced Documents listed above address the following items:
   a. Instructions for safety i.e.
      i. Putting into service
      ii. Use
      iii. Assembling and dismantling
      iv. Maintenance, overhaul and repair
      v. Installation
      vi. Adjustment
   b. Where necessary, training instructions
   c. Details which allow a decision to be made as to whether the equipment can be used safely in the intended area under the expected operating conditions
   d. Electrical parameters, maximum surface temperatures and other limit values
      i. Electrical –
      1. See document 8750W-2052

<table>
<thead>
<tr>
<th><strong>Rosemount 8750W Flow Transmitter</strong></th>
</tr>
</thead>
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<tr>
<td><strong>Power input</strong></td>
</tr>
<tr>
<td>90 - 250VAC, 0.45A, 40VA</td>
</tr>
<tr>
<td>12 - 42VDC, 1.2A, 15W</td>
</tr>
<tr>
<td><strong>Pulsed circuit</strong></td>
</tr>
<tr>
<td>Internally powered (Active): Outputs up to 12VDC, 12.1mA, 73mW</td>
</tr>
<tr>
<td>Externally powered (Passive): Input up to 28VDC, 100mA, 1W</td>
</tr>
<tr>
<td><strong>4-20mA output circuit</strong></td>
</tr>
<tr>
<td>Internally Powered (Active): Outputs up to 25mA, 24VDC, 600mW</td>
</tr>
<tr>
<td>Externally Powered (Passive): Input up to 25mA, 30VDC, 750mW</td>
</tr>
<tr>
<td><strong>MODBUS</strong></td>
</tr>
<tr>
<td>Internally Powered (Active): Outputs up to 100mA, 3.3VDC, 100mW</td>
</tr>
<tr>
<td><strong>Fieldbus</strong></td>
</tr>
<tr>
<td>Externally Powered (Passive): 9-32VDC,</td>
</tr>
<tr>
<td><strong>Profibus</strong></td>
</tr>
<tr>
<td>Externally Powered (Passive): 9-32VDC,</td>
</tr>
<tr>
<td><strong>Um</strong></td>
</tr>
<tr>
<td>250V</td>
</tr>
<tr>
<td><strong>Coil excitation output</strong></td>
</tr>
<tr>
<td>500mA, 40V max, 9W max</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Rosemount 8750W Fl owtube</strong>(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coil excitation input</strong></td>
</tr>
<tr>
<td>500mA, 40V max, 20W max</td>
</tr>
<tr>
<td><strong>Electrode circuit</strong></td>
</tr>
<tr>
<td>5V, 200uA, 1mW</td>
</tr>
</tbody>
</table>

(1) Provided by the transmitter
Special Conditions for Safe Use (X):

i. Terminals for the output signals of the Magnetic Flow Transmitters, cannot withstand the 500 V isolation test between signal and ground, due to integral transient protection. This must be taken into account upon installation.

ii. When utilizing the keypad of Magnetic Flow Transmitter Model 8750W...W, instructions for safe use regarding potential electrostatic charging hazard have to be followed.

iii. When “Special Paint Systems” are applied, instructions for safe use regarding potential electrostatic charging hazard have to be followed.

iv. Conduit entries must be installed to maintain the enclosure ingress rating of IP66 (Transmitter and Flow Tube), IP68 (Flow Tube) or IP69K (Flow Tube or 8750W...W transmitter) as applicable.

e. Where necessary, the essential characteristics of tools which may be fitted to the equipment

   i. No proprietary tools required.

f. List of the standards, including the issue date, with which the equipment is declared to comply:


g. Supply wire requirements;

   Use 10 - 18 AWG wire rated for the proper temperature of the application. For wire 10 - 14 AWG use lugs or other appropriate connectors. For connections in ambient temperatures above 122°F (50 °C), use a wire rated for 194 °F (90 °C).

h. Contact address; Emerson - Rosemount, Micro Motion Inc
   12001 Technology Drive
   Eden Prairie, MN 55344, United States of America
# Nomenclature Magnetic Flow Meter System Model 8750W and electrical data

<table>
<thead>
<tr>
<th>Designation</th>
<th>Explanation</th>
<th>Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Model</td>
<td>8750W</td>
<td>Flow Meter System Model 8750W</td>
</tr>
<tr>
<td>II</td>
<td>Transmitter Mount</td>
<td>R T W</td>
<td>Remote Mount, Integral Mount, Wall Mount</td>
</tr>
<tr>
<td>III</td>
<td>Transmitter Power Supply</td>
<td>1 2</td>
<td>AC (90 - 250 Vac, 50 / 60 Hz), not for Ex nA or Ex ec DC (12 - 42 Vdc)</td>
</tr>
<tr>
<td>V</td>
<td>Conduit Entries</td>
<td>1 2 4 5</td>
<td>½-14 NPT female, CM20, M20 female, ½-14 NPT female, 8750W...R / T only, CM20, M20 female, 8750W...R / T only</td>
</tr>
<tr>
<td>VI</td>
<td>Electrode Type</td>
<td>A B E F 0</td>
<td>Seal of electrodes comply with IEC 61010-1, Spare Transmitter, No Flow Tube</td>
</tr>
<tr>
<td>VII</td>
<td>Line Size</td>
<td>005 to 480 000</td>
<td>½” NPS (15 mm) to 48” NPS (1200 mm), Spare Transmitter, no Flow Tube</td>
</tr>
</tbody>
</table>

**Z1 ATEX**

Transmitter Models 8750W...R and 8750W...T:
- Ⅱ 3 G  Ex nA [ic] IIC T4 Gc *
- Ⅱ 3 G  Ex ec [ic] IIC T4 Gc *
- Ⅱ 3 D  Ex tc IIC T80 °C…T130 °C Dc **

Transmitter Model 8750W...W:
- Ⅱ 3 G  Ex nA ic [ic] IIC T4 Gc *
- Ⅱ 3 G  Ex ec ic [ic] IIC T4 Gc *
- Ⅱ 3 D  Ex tc IIC T80 °C Dc **

Flow Tube:
- Ⅱ 3 G  Ex nA ic IIC T5…T4 Gc
- Ⅱ 3 G  Ex ec ic IIC T5…T4 Gc
- Ⅱ 3 D  Ex tc IIC T80 °C…T130 °C Dc

**Z7 / Z9 IECEx**

Transmitter Models 8750W...R and 8750W...T:
- Ex nA [ic] IIC T4 Gc *
- Ex ec [ic] IIC T4 Gc *
- Ex tc IIC T80 °C…T130 °C Dc **

Transmitter Model 8750W...W:
- Ex nA ic [ic] IIC T4 Gc *
- Ex ec ic [ic] IIC T4 Gc *
- Ex tc IIC T80 °C Dc **

Flow Tube:
- Ex nA ic IIC T5…T4 Gc
- Ex ec ic IIC T5…T4 Gc
- Ex tc IIC T80 °C…T130 °C Dc

**ND ATEX**

Transmitter Models 8750W...R and 8750W...T + Flow Tube:
- Ⅱ 3 D  Ex tc IIC T80 °C…T130 °C Dc **
- Ⅱ (3) G  [Ex ic Gc] IIC ***

Transmitter Model 8750W...W:
- Ⅱ 3 D  Ex tc IIC T80 °C Dc **
- Ⅱ (3) G  [Ex ic Gc] IIC ***

**NF IECEx**

Transmitter Models 8750W...R and 8750W...T + Flow Tube:
- Ex tc IIC T80 °C…T130 °C Dc **
- [Ex ic Gc] IIC ***

Transmitter Model 8750W...W:
- Ex tc IIC T80 °C Dc **
- [Ex ic Gc] IIC ***

**NOTE:**
- * Model 8750W Transmitter DC Power Supply only
- ** Model 8750W Transmitter AC and DC Power Supply
- *** Intrinsically Safe Output (see IV) option only
Nomenclature Magnetic Flow Meter System Model 8750W and electrical data (continued)

<table>
<thead>
<tr>
<th>Designation</th>
<th>Explanation</th>
<th>Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IX</td>
<td>Transmitter Display</td>
<td>--</td>
<td>Without LOI and keypad</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M4</td>
<td>LOI (+keypad for Transmitter model 8750W...W only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M5</td>
<td>Display</td>
</tr>
<tr>
<td>X</td>
<td>Transmitter Discrete Input / Output</td>
<td>AX</td>
<td>Two Discrete Channels (DI/DO 1, DO 2)</td>
</tr>
<tr>
<td>XI</td>
<td>Specials Paint</td>
<td>Vx</td>
<td>Special Paint Systems ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NOTE: *** Subject to special conditions for safe use.</td>
</tr>
<tr>
<td>XII</td>
<td>Remote Cable</td>
<td>Rxx</td>
<td>Standard Temperature Component</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NOTE: **** Length = XX x 10ft., max 500 ft.</td>
</tr>
</tbody>
</table>
EU Declaration of Conformity No: RFD 1098 Rev. L

We,

Emerson – Rosemount, Micro Motion Inc.
12001 Technology Drive
Eden Prairie, MN 55344
USA

declare under our sole responsibility that the product(s),

Rosemount Model 8750W Magnetic Flowmeters

to which this declaration relates, is in conformity with the provisions of the European Union Legislation, including the latest amendments, as shown in the attached schedule.

Assumption of conformity is based on the application of harmonized or applicable technical standards and, when applicable or required, a European Union Legislation notified body certification, as shown in the attached schedule.

______________________________
(signature)

14 February 2019
(date of issue)

Mark Fleigle
(name - printed)

Vice President - Technology and Product Development
(function name - printed)
Schedule
EU Declaration of Conformity RFD 1098 Rev. L

LVD Directive 2014/35/EU

All Models: EN 61010-1:2010

EMC Directive 2014/30/EU

All Models: EN 61326-1:2013

PED Directive 2014/68/EU

Model 8750W Magnetic Flowmeter Sensor with Option “PD”, in Line Sizes 1.5” – 24”

Equipment without the ‘PD’ option is NOT PED compliant and cannot be used in the EEA without further assessment unless the installation is exempt under Article 1, paragraph 2 of the PED Directive 2014/68/EU.

QS Certificate of Assessment - 12317-2018-CE-USA-ACCREDIA
Module H Conformity Assessment
ASME B31.3: 2016

Model 8750W in Line Sizes 0.5” – 1.0”
Sound Engineering Practice
ASME B31.3: 2016
Schedule
EU Declaration of Conformity RFD 1098 Rev. L

ATEX Directive 2014/34/EU

Model 8750W Magnetic Flowmeter Transmitter and Sensors

CERTIFICATE: DEKRA 15ATEX0003 X
Equipment Marking Summary:

\[\begin{align*}
\text{II 3 G} & \quad \text{Ex nA [ic] IIC T4 Gc} \\
\text{II 3 G} & \quad \text{Ex ec [ic] IIC T4 Gc} \\
\text{II 3 G} & \quad \text{Ex nA ic IIC T5...T4 Gc} \\
\text{II 3 G} & \quad \text{Ex ec ic IIC T5...T4 Gc} \\
\text{II 3 G} & \quad \text{Ex nA ic [ic] IIC T4 Gc} \\
\text{II 3 G} & \quad \text{Ex ec ic [ic] IIC T4 Gc} \\
\text{II 3 G} & \quad \text{[Ex ic Gc] IIC} \\
\text{II 3 D} & \quad \text{Ex tc IIC T 80°C Dc} \\
\text{II 3 D} & \quad \text{Ex tc IIC T 80°C...T 130°C Dc}
\end{align*}\]

EN 60079-15: 2010
EN 60079-31: 2014

PED Notified Body

DNV GL Business Assurance S.r.l. [Notified Body Number: 0496]
Via Energy Park 14
Vimercate, 20871 Italy
HAZARDOUS (Ex) LOCATION CONTROL AND INSTALLATION DRAWING
MODEL 8750WD MAGNETIC FLOWTUBE AND TRANSMITTERS.

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<td>GAS ENVIRONMENT - EPL Gc SENSOR WITH ALLOWED INTEGRAL MOUNT EPL Gc TRANSMITTERS</td>
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<tr>
<td>3</td>
<td>GAS ENVIRONMENT - EPL Gc SENSOR WITH ALLOWED REMOTE MOUNT EPL Gc TRANSMITTERS</td>
</tr>
<tr>
<td>4</td>
<td>DUST ENVIRONMENT - EPL Dc SENSOR WITH ALLOWED INTEGRAL MOUNT EPL Dc TRANSMITTERS</td>
</tr>
<tr>
<td>5</td>
<td>DUST ENVIRONMENT - EPL Dc SENSOR WITH ALLOWED REMOTE MOUNT EPL Dc TRANSMITTERS</td>
</tr>
<tr>
<td>6</td>
<td>GAS AND DUST ENVIRONMENT - EPL Gc AND EPL Dc - SENSOR TEMPERATURE CODE VS. PROCESS TEMPERATURE AND INGRESS PROTECTION RATINGS</td>
</tr>
<tr>
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<td>GAS ENVIRONMENT - EPL Gc COIL AND ELECTRODE CIRCUIT WIRING</td>
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<td>8</td>
<td>DUST ENVIRONMENT - EPL Dc COIL AND ELECTRODE CIRCUIT WIRING</td>
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<tr>
<td>9</td>
<td>GAS AND DUST ENVIRONMENT - OUTPUT WIRING</td>
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<tr>
<td>10</td>
<td>GAS ENVIRONMENT - INTRINSICALLY SAFE ENTITY CONCEPTS</td>
</tr>
<tr>
<td>11</td>
<td>GAS ENVIRONMENT - FISCO CONCEPT</td>
</tr>
</tbody>
</table>

**WARNING:** EXPLOSION HAZARD - PRODUCT INSTALLATION SHALL COMPLY WITH INFORMATION AS STATED IN THIS DOCUMENT.

- **WIRING METHOD SUITABLE FOR APPROPRIATE ZONE AND PROTECTION TYPE.**
- **TRANSMITTER MUST NOT BE CONNECTED TO EQUIPMENT GENERATING MORE THAN 250V.**
- **COMPONENTS REQUIRED TO HAVE HAZARDOUS (Ex) LOCATION APPROVAL MUST BE APPROVED FOR THE GAS GROUP APPROPRIATE TO AREA CLASSIFICATION.**

4. FOR ALL INSTALLATIONS: MAXIMUM TERMINAL TIGHTENING TORQUE IS 10.6 IN LBS.

5. THE ELECTRODE CIRCUIT AND WIRING MUST BE INSTALLED AS INTRINSICALLY SAFE WHEN THE FLOWTUBE IS INSTALLED IN A HAZARDOUS (Ex) AREA WITH AN EQUIPMENT PROTECTION LEVEL (EPL) OF Gc.

6. NO REVISION TO THIS DRAWING WITHOUT PRIOR AGENCY APPROVAL.

- **INSTALLATION SHOULD BE IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODE, EN 60079-14 OR IEC 60079-14, ELECTRICAL INSTALLATIONS DESIGN, SELECTION, AND ERECTION.**

8. SAFETY APPROVALS OPTIONS 2, 7, AND 9 HAVE EPL Dc DUST RATINGS AND MAY BE INSTALLED IN HAZARDOUS DUST (Ex) ENVIRONMENT AS DESCRIBED IN THIS DOCUMENT.

9. THE TRANSMITTER IS NOT CAPABLE OF PASSING THE 500V ISOLATION TEST ON TERMINALS DUE TO INTEGRAL TRANSIENT PROTECTION. THIS MUST BE TAKEN INTO ACCOUNT UPON INSTALLATION.

10. THE ROSEMOUNT CABLING KITS, FOR INTRINSICALLY SAFE ELECTRODES, INCLUDE A CERTIFICATE OF CONFORMITY (COC) FROM THE MANUFACTURER FOR CAPACITANCE PER FOOT & INDUCTANCE PER FOOT. THESE PARAMETERS ARE ONLY REQUIRED FOR THE ENTITY CONCEPT METHOD OF INSTALLATION.

11. THE INTRINSICALLY SAFE ANALOG AND DIGITAL OUTPUTS MUST USE TWISTED PAIR WITH AN INDIVIDUAL SHIELD FOR THE PAIR. IT IS ALSO RECOMMENDED TO USE SHIELDED TWISTED PAIR FOR THE PULSE OUTPUT.

12. SEAL APPROVED FOR USE IN APPROPRIATE ZONE AND GAS GROUP.

13. TRANSMITTER OUTPUTS ARE CONSIDERED INTRINSICALLY SAFE WHEN INSTALLED IN ACCORDANCE TO INTRINSICALLY SAFE CONCEPTS AND INSTALLATION REQUIREMENTS WITHIN THIS DOCUMENT.

### NOTES:

- **WARNING:** EXPLOSION HAZARD - PRODUCT INSTALLATION SHALL COMPLY WITH INFORMATION AS STATED IN THIS DOCUMENT.
Gas Environment - EPL Gc Sensor with Allowed Integral Mount EPL Gc Transmitters

Ex nA Sensor Integral Mount Configurations

Model 8750WD Integral Mount Configuration with Safety Approval Option Z1, Z7, and Z9

Model Code Breakdown:

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8750WD</td>
<td>Integral Mount Z1, Z7, and Z9</td>
</tr>
</tbody>
</table>

Ex ec ic IIC T5...T4 Gc
Ex ec ic IIC T5...T4 Gc
EPL Gc, for use in Hazardous (Ex) Area - Zone 2
With Carbon Steel Housing (-20°C to 60°C)
See Table 1 for Process Temperature Limits and Allowed Mounting Configurations
Type 'e' or 'n' with Intrinsically Safe Electrodes

Torque to 5.7 ft lbs if bolts are loosened (4X)

Electrodes Contact Process

Allowed Integral Mount Transmitter Configurations

Model 8750WD Integral Mount Configuration with Safety Approval Option Z1, Z7, and Z9

Model Code Breakdown:

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8750WD</td>
<td>Integral Mount Z1, Z7, and Z9</td>
</tr>
</tbody>
</table>

Ex nA |ic| IIC T4 Gc - DC power only, in Protection Type 'e'
Ex ec |ic| IIC T4 Gc - DC power only, in Protection Type 'e'
EPL Gc, for use in Hazardous (Ex) Area - Zone 2
See Table 1 for Process Temperature Limits and Allowed Mounting Configurations

* Typical Application. Consult local Hazardous Area (Ex) Zoning for Process Fluid Classification.
GAS ENVIRONMENT - EPL Gc SENSOR WITH ALLOWED REMOTE MOUNT EPL Gc TRANSMITTERS

Ex ec / Ex nA SENSOR
REMOTE MOUNT CONFIGURATIONS

MODEL 8750WD REMOTE MOUNT SENSOR CONFIGURATION
WITH SAFETY APPROVAL OPTION 'Z1', 'Z7', AND 'Z9'

MODEL CODE BREAKDOWN

Ex ec ic IIC T5...T4 Gc
Ex nA ic IIC T5...T4 Gc
EPL Gc, FOR USE IN HAZARDOUS (Ex) AREA - ZONE 2
WITH CARBON STEEL HOUSING (-29°C ≤ Ta ≤ 60°C)
SEE TABLE 1 FOR PROCESS TEMPERATURE LIMITS AND
ALLOWED MOUNTING CONFIGURATIONS
TYPE 'e' OR 'n' WITH INTRINSICALLY SAFE ELECTRODES

MODEL 8750WD REMOTE FIELD MOUNT CONFIGURATION
WITH SAFETY APPROVAL OPTION 'Z1', 'Z7', AND 'Z9'

MODEL CODE BREAKDOWN

Ex nA ic IIC T4 Gc - DC POWER ONLY, IN PROTECTION TYPE 'n'
Ex ec ic IIC T4 Gc - DC POWER ONLY, IN PROTECTION TYPE 'e'
EPL Gc, FOR USE IN HAZARDOUS (Ex) AREA - ZONE 2
TEMPERATURE CLASS: EPL Gc: T4 (-40°C ≤ Ta ≤ 60°C)
WITH INTRINSICALLY SAFE ELECTRODE CIRCUIT

MODEL 8750WD REMOTE WALL MOUNT CONFIGURATION
WITH SAFETY APPROVAL OPTION 'Z1', 'Z7', AND 'Z9'

MODEL CODE BREAKDOWN

Ex nA ic IIC T4 Gc - DC POWER ONLY, IN PROTECTION TYPE 'n'
Ex ec ic IIC T4 Gc - DC POWER ONLY, IN PROTECTION TYPE 'e'
EPL Gc, FOR USE IN HAZARDOUS (Ex) AREA - ZONE 2
TEMPERATURE CLASS: EPL Gc: T4 (-40°C ≤ Ta ≤ 60°C)
WITH INTRINSICALLY SAFE ELECTRODE CIRCUIT

* TYPICAL APPLICATION. CONSULT LOCAL HAZARDOUS AREA (Ex) ZONING
FOR PROCESS FLUID CLASSIFICATION.
DUST ENVIRONMENT - EPL Dc SENSOR WITH ALLOWED INTEGRAL MOUNT EPL Dc TRANSMITTERS

Ex to SENSOR INTEGRAL MOUNT CONFIGURATIONS

MODEL 8750WD INTEGRAL MOUNT CONFIGURATION
WITH SAFETY APPROVAL OPTION ND, "NF"

MODEL CODE BREAKDOWN

8750WD M T xxx F xxxxxxxx ND, "NF"

SAFETY APPROVALS OPTION
SENSOR STYLE
TRANSMITTER MOUNT
TRANSMITTER CLASS

8750WD

Model 8750WD INTEGRAL MOUNT CONFIGURATION
WITH SAFETY APPROVAL OPTION "NF"

MODEL CODE BREAKDOWN

8750WD M T xxx xxxxxxxx ND

SAFETY APPROVALS OPTION
TRANSMITTER MOUNT
TRANSMITTER CLASS

8750WD

Ex to IIC T80°C...T130°C Dc
EPL Dc, FOR USE IN ZONE 22
WITH CARBON STEEL HOUSING (29°C ≤ Ta ≤ 60°C)
SEE TABLE 2 FOR PROCESS TEMPERATURE LIMITS AND ALLOWED MOUNTING CONFIGURATION

MODEL 8750WDMT INTEGRAL MOUNT ND, NF OPTION

ELECTRODES CONTACT PROCESS

MODEL 8750WDMT INTEGRAL MOUNT ND, NF OPTION

TO TORQUE TO 5-7 FT LBS IF BOLTS ARE LOOSENED (4X)
WITH FLAMMABLE PROCESS

8750WDMT

ALLOWED INTEGRAL MOUNT TRANSMITTER CONFIGURATIONS

Ex to IIC T80°C...T130°C Dc
EPL Dc, FOR USE IN ZONE 22
SEE TABLE 2 FOR TEMPERATURE CLASS AND SPECIFIED MAXIMUM SURFACE TEMPERATURE "T" OF FLOWTUBES ON WHICH THE TRANSMITTER IS MOUNTED

ALLOWED INTEGRAL MOUNT TRANSMITTER CONFIGURATIONS

MODEL 8750WD INTEGRAL MOUNT CONFIGURATION
WITH SAFETY APPROVAL OPTION "NF"

MODEL CODE BREAKDOWN

8750WD M T xxx xxxxxxxx ND

SAFETY APPROVALS OPTION
TRANSMITTER MOUNT
TRANSMITTER CLASS

8750WD

Installation Drawing 8750W, ATEX & IECEx Hazardous Locations

Model 8750WD INTEGRAL MOUNT CONFIGURATION
WITH SAFETY APPROVAL OPTION "NF"

MODEL CODE BREAKDOWN

8750WD M T xxx xxxxxxxx ND

SAFETY APPROVALS OPTION
TRANSMITTER MOUNT
TRANSMITTER CLASS

8750WD

Electrodes contact process.
# Gas and Dust Environment - EPL Gc and EPL Dc - Sensor Temperature Code vs. Process Temperature and Ingress Protection Ratings

## Table 1 - 8750W: Ex ec Protection Type 'e' and Ex na Protection Type 'n'

<table>
<thead>
<tr>
<th>Line Size</th>
<th>Maximum Process Temperature (°C)</th>
<th>T Classification Code</th>
<th>Mounting Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>60</td>
<td>T4</td>
<td>Sensor with integral mount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>90</td>
<td>T4</td>
<td>Sensor with integral mount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>60</td>
<td>T5</td>
<td>Remote sensor with remote junction box (RJB)</td>
</tr>
<tr>
<td>ALL</td>
<td>90</td>
<td>T4</td>
<td>Remote sensor with remote junction box (RJB)</td>
</tr>
<tr>
<td>ALL</td>
<td>120</td>
<td>T4</td>
<td>Remote remote sensor with remote junction box (RJB)</td>
</tr>
<tr>
<td>ALL</td>
<td>Not applicable</td>
<td>T4</td>
<td>Remote wallmount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>Not applicable</td>
<td>T4</td>
<td>Remote wallmount transmitter</td>
</tr>
</tbody>
</table>

## Table 2 - 8750W: Ex ta Protection Type 't'

<table>
<thead>
<tr>
<th>Line Size</th>
<th>Maximum Process Temperature (°C)</th>
<th>Maximum Surface Temperature (°C)</th>
<th>Mounting Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>60</td>
<td>T 80°C</td>
<td>Sensor with integral mount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>90</td>
<td>T 100°C</td>
<td>Sensor with integral mount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>60</td>
<td>T 80°C</td>
<td>Remote sensor with remote junction box (RJB)</td>
</tr>
<tr>
<td>ALL</td>
<td>90</td>
<td>T 100°C</td>
<td>Remote sensor with remote junction box (RJB)</td>
</tr>
<tr>
<td>ALL</td>
<td>120</td>
<td>T 130°C</td>
<td>Remote sensor with remote junction box (RJB)</td>
</tr>
<tr>
<td>ALL</td>
<td>Not applicable</td>
<td>T 80°C</td>
<td>Remote wallmount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>Not applicable</td>
<td>T 80°C</td>
<td>Remote wallmount transmitter</td>
</tr>
</tbody>
</table>

## Table 3 - 8750W: Ingress Protection and Corrosion Protection Ratings

<table>
<thead>
<tr>
<th>Line Size</th>
<th>IP Rating</th>
<th>NEMA Rating</th>
<th>Mounting Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>IP66</td>
<td>Type 4X</td>
<td>Sensor with integral mount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>IP66</td>
<td>Type 4X</td>
<td>Remote field mount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>IP66</td>
<td>Type 4X</td>
<td>Remote wallmount transmitter</td>
</tr>
<tr>
<td>ALL</td>
<td>IP66, IP68 or IP69K</td>
<td>Type 4X</td>
<td>Remote sensor with remote junction box (RJB)</td>
</tr>
</tbody>
</table>

* IP x8 submergence depth is 10 meters (30 feet) for 48 hours duration
**Model 8750WD with Non-Intrinsically Safe Electrode Circuit**

For use with safety approval option Z1, Z7, and Z9.

Component or combination coil/electrode cable allowed. See installation wiring drawing 08712-1504 for non-intrinsically safe cabling (for process temperature limits see Table 2).

**Remote Mount Flowtube and Transmitter Layout**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Electrode</td>
</tr>
<tr>
<td>18</td>
<td>Electrode</td>
</tr>
<tr>
<td>17</td>
<td>Electrode Reference (BE)</td>
</tr>
</tbody>
</table>

Non-Intrinsically Safe Coil Circuit

Install using EPL Dc wiring methods appropriate to the area device is installed in.

For use with non-flammable process only. Install electrode circuit as non-intrinsically safe using EPL Dc wiring methods appropriate to the area device is installed in.

Optional divider shown.

**Remote Divider Shown**

8750WDMR/W Flowtube

Remote Junction Box

8750WDMR Transmitter

Remote Junction Box

8750WDMR/W Flowtube

Remote Junction Box

8750WDMW Transmitter

(Lower cover and safety cover are not shown)

Model 8750WD with Non-Intrinsically Safe Electrode Circuit

For use with safety approval option Z1, Z7, and Z9.

Component or combination coil/electrode cable allowed. See installation wiring drawing 08712-1504 for non-intrinsically safe cabling (for process temperature limits see Table 2).

Non-Intrinsically Safe Coil Circuit

Install using EPL Dc wiring methods appropriate to the area device is installed in.

For use with non-flammable process only. Install electrode circuit as non-intrinsically safe using EPL Dc wiring methods appropriate to the area device is installed in.

Optional divider shown.

8750WDMR/W Flowtube

Remote Junction Box

8750WDMR Transmitter

Remote Junction Box

8750WDMR/W Flowtube

Remote Junction Box

8750WDMW Transmitter

(Lower cover and safety cover are not shown)
GAS AND DUST ENVIRONMENT - OUTPUT WIRING

8750W MODEL CODE BREAKDOWN

COMMUNICATION OUTPUT OPTIONS

- MODBUS
- FIELDBUS OR PROFIBUS

8750W DATA CIRCUIT: TERMINALS 9-12
DIGITAL I/O SIGNALS

- POWER TERMINALS 9, 10
- DATA CIRCUIT: TERMINALS 5-8
DIGITAL I/O SIGNALS NOT AVAILABLE WITH INTRINSICALLY SAFE OUTPUTS

- PULSE OUTPUT TERMINALS 5, 6
- PULSE OUTPUT TERMINALS 7, 8

4-20mA ANALOG OR DIGITAL OUTPUT

- POWER TERMINALS L1, N/L2

- DATA CIRCUIT: TERMINALS 3-4

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 7, 8
4-20mA OR DIGITAL OUTPUT

- TERMINALS 1, 2

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 3, 4

PULSE OUTPUT

- TERMINALS 3, 4

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 5, 6

PULSE OUTPUT

- TERMINALS 5, 6

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 7, 8

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 1, 2

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 3, 4

4-20mA ANALOG OR DIGITAL OUTPUT

- TERMINALS 7, 8
GAS ENVIRONMENT - INTRINSICALLY SAFE ENTITY CONCEPTS

8750WDMT/R ENTITY CONCEPT FOR INTRINSICALLY SAFE OUTPUTS

AC/DC POWER
Um=250V

PULSE OUTPUT
ENTITY PARAMETERS
Ui = 28V
Ii = 100mA
Ci = 4.5nF
Li = 0.0uH
Pi = 1.0W
Uo MUST BE LESS THAN OR EQUAL TO 28V
Io MUST BE LESS THAN OR EQUAL TO 100mA
Co MUST BE GREATER THAN THE SUM OF Ci+Cable
Lo MUST BE GREATER THAN THE SUM OF Li+Lcable
Po MUST BE LESS THAN OR EQUAL TO 1.0 WATTS

DEFINITIONS:
Ui = MAXIMUM INPUT VOLTAGE
Ii = MAXIMUM INPUT CURRENT
Ci = MAXIMUM INTERNAL CAPACITANCE
Li = MAXIMUM INTERNAL INDUCTANCE
Pi = MAXIMUM INPUT POWER
Uo = OPEN CIRCUIT VOLTAGE OF THE BARRIER
Io = SHORT CIRCUIT CURRENT OF THE BARRIER
Co = MAXIMUM ALLOWED CAPACITANCE
Lo = MAXIMUM ALLOWED INDUCTANCE
Po = MAXIMUM OUTPUT POWER

THE ENTITY CONCEPT ALLOWS INTERCONNECTION OF ASSOCIATED APPARATUS AND INTRINSICALLY SAFE APPARATUS WHEN THE FOLLOWING IS TRUE:

Uo  MUST BE LESS THAN OR EQUAL TO 28V
Io   MUST BE LESS THAN OR EQUAL TO 100mA
Co  MUST BE GREATER THAN THE SUM OF Ci+Cable
Lo  MUST BE GREATER THAN THE SUM OF Li+Lcable
Po  MUST BE LESS THAN OR EQUAL TO 1.0 WATTS

8750WDMW ENTITY CONCEPT FOR INTRINSICALLY SAFE OUTPUTS

DEFINITIONS:
Ui = MAXIMUM INPUT VOLTAGE
Ii = MAXIMUM INPUT CURRENT
Ci = MAXIMUM INTERNAL CAPACITANCE
Li = MAXIMUM INTERNAL INDUCTANCE
Pi = MAXIMUM INPUT POWER
Uo = OPEN CIRCUIT VOLTAGE OF THE BARRIER
Io = SHORT CIRCUIT CURRENT OF THE BARRIER
Co = MAXIMUM ALLOWED CAPACITANCE
Lo = MAXIMUM ALLOWED INDUCTANCE
Po = MAXIMUM OUTPUT POWER

THE ENTITY CONCEPT ALLOWS INTERCONNECTION OF ASSOCIATED APPARATUS AND INTRINSICALLY SAFE APPARATUS WHEN THE FOLLOWING IS TRUE:

Uo  MUST BE LESS THAN OR EQUAL TO 28V
Io   MUST BE LESS THAN OR EQUAL TO 100mA
Co  MUST BE GREATER THAN THE SUM OF Ci+Cable
Lo  MUST BE GREATER THAN THE SUM OF Li+Lcable
Po  MUST BE LESS THAN OR EQUAL TO 1.0 WATTS

POWER TERMINALS L1, N/L2
4-20mA OR DIGITAL OUTPUT TERMINALS 1, 2
PULSE OUTPUT TERMINALS 3, 4

FOUNDATION FIELDBUS AND PROFIBUS DIGITAL OUTPUT
ENTITY PARAMETERS
Ui = 30V
Ii = 380mA
Ci = 924pF
Li = 0.0uH
Uo MUST BE LESS THAN OR EQUAL TO 30V
Io MUST BE LESS THAN OR EQUAL TO 380mA
Co MUST BE GREATER THAN THE SUM OF Ci+Cable
Lo MUST BE GREATER THAN THE SUM OF Li+Lcable

BARRIER PARAMETERS

POWER TERMINALS 9, 10
4-20mA OR DIGITAL OUTPUT TERMINALS 5, 6
PULSE OUTPUT TERMINALS 7, 8

FOUNDATION FIELDBUS AND PROFIBUS DIGITAL OUTPUT
ENTITY PARAMETERS
Ui = 30V
Ii = 380mA
Ci = 924pF
Li = 0.0uH
Uo MUST BE LESS THAN OR EQUAL TO 30V
Io MUST BE LESS THAN OR EQUAL TO 380mA
Co MUST BE GREATER THAN THE SUM OF Ci+Cable
Lo MUST BE GREATER THAN THE SUM OF Li+Lcable

BARRIER PARAMETERS

AC/DC POWER
Um=250V
**FISCO CONCEPT**

THE FISCO CONCEPT ALLOWS INTERCONNECTION OF INTRINSICALLY SAFE APPARATUS TO ASSOCIATED APPARATUS NOT SPECIALLY EXAMINED IN SUCH COMBINATION. THE CRITERIA FOR INTERCONNECTION IS THAT THE VOLTAGE (V(max)), THE CURRENT (I(max)), AND THE POWER (P(max)) WHICH AN INTRINSICALLY SAFE APPARATUS CAN RECEIVE AND REMAIN INTRINSICALLY SAFE CONSIDERING FAULTS, MUST BE EQUAL OR GREATER THAN VOLTAGE (Voc) AND CURRENT (Isc) WHICH CAN BE DELIVERED BY THE ASSOCIATED APPARATUS, CONSIDERING FAULTS AND APPLICABLE FACTORS. IN ADDITION, THE MAXIMUM UNPROTECTED CAPACITANCE (C) AND THE INDUCTANCE (L) OF EACH APPARATUS (OTHER THAN THE TERMINATION) CONNECTED TO THE FIELD BUS MUST BE LESS THAN OR EQUAL TO 5 nF AND 10 µH RESPECTIVELY.

IN EACH SEGMENT ONLY ONE ACTIVE DEVICE, NORMALLY THE ASSOCIATED APPARATUS, IS ALLOWED TO PROVIDE THE NECESSARY ENERGY FOR THE FIELD BUS SYSTEM. THE VOLTAGE (Voc) OF THE ASSOCIATED APPARATUS IS LIMITED TO A RANGE OF 14 TO 17.5 VDC. ALL OTHER EQUIPMENT CONNECTED TO THE BUS CABLE HAS TO BE PASSIVE, MEANING THAT THEY ARE NOT ALLOWED TO PROVIDE ENERGY TO THE SYSTEM, EXCEPT A LEAKAGE CURRENT OF 50 µA FOR EACH CONNECTED DEVICE. SEPARATELY POWERED EQUIPMENT NEEDS GALVANIC ISOLATION TO ASSURE THAT THE INTRINSICALLY SAFE FIELD BUS CIRCUIT REMAINS PASSIVE.

THE CABLE USED TO INTERCONNECT DEVICES NEEDS TO HAVE THE PARAMETERS IN THE FOLLOWING RANGE:

- Loop Resistance Rc: 15.....150 Ohm/km
- Inductance per unit length Lc: 0.4.....1 mH/km
- Capacitance per unit length Cc: 45.....200 nF
- Length of trunk cable: less than or equal to 1000m
- Length of spur cable: less than or equal to 60m

AT EACH END OF THE TRUNK CABLE AN APPROVED INFAILLIBLE LINE TERMINATION WITH THE FOLLOWING PARAMETERS IS SUITABLE.

\[
R = 90.....102 \text{ Ohm} \\
C = 0.....2.2 \mu\text{F}
\]

ONE OF THE ALLOWED TERMINATIONS MIGHT ALREADY BE INTEGRATED IN THE ASSOCIATED APPARATUS. THE NUMBER OF PASSIVE APPARATUS CONNECTED TO THE BUS SEGMENT IS NOT LIMITED TO I.S. REASONS. IF THE ABOVE RULES ARE RESPECTED, UP TO A TOTAL LENGTH OF 1000 m (SUM OF TRUNK AND ALL SPUR CABLES) OF CABLE IS PERMITTED. THE INDUCTANCE AND THE CAPACITANCE OF THE CABLE WILL NOT IMPAIR THE INTRINSIC SAFETY OF THE INSTALLATION.

**ENTITY PARAMETER VS BARRIER PARAMETERS**

<table>
<thead>
<tr>
<th>Entity Parameter</th>
<th>Ii = 300 mA</th>
<th>Li = 0.0 µH</th>
<th>Ci = 924 pF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pi = 5.32 W</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Barrier Parameters**

- Ii MUST BE LESS THAN OR EQUAL TO 300 mA
- Li MUST BE LESS THAN OR EQUAL TO 0.0 µH
- Ci MUST BE GREATER THAN THE SUM OF Ci + Cable
- Co MUST BE GREATER THAN THE SUM OF Li + Cable

**CONDITIONAL AND PROPRIETARY INFORMATION IS CONFIDENTIAL AND MUST BE HANDLED ACCORDINGLY**

**EMERSON**

**ROSEMOUNT**

**INSTALLATION DRAWING 8750W, ATEX & IECEx HAZARDOUS LOCATIONS**