



**Installation Notes TMT 112**



- 1) CSA certified apparatus must be installed in accordance with manufacturer's instructions.
- 2) The installation must be in accordance with the Canadian Electrical Code.
- 3) CSA certified associated apparatus must meet the following requirements:  
 $U_o$  or  $V_{oc} \leq U_i$  or  $V_{max}$     $I_o$  or  $I_{sc} \leq I_i$  or  $I_{max}$     $P_o$  or  $P_{max} \leq P_i$     $C_a$  or  $C_o \geq C_i + C_{cable}$     $L_a$  or  $L_o \geq L_i + L_{cable}$
- 4) Use supply wires suitable for 5°C above surrounding.
- 5) The product will be installed in a suitable enclosure accepted by local authority having jurisdiction
- 6) Terminals 1, 2, 3 and 4 provide Intrinsically safe and non-incendive circuits to RTD's, Thermocouples and other passive resistive devices.
- 7) For Division 2 installations  
 Warning: Do not disconnect equipment unless power has been switched off or the area is known to be nonhazardous.  
 Warning: Substitution of components may impair suitability for intrinsic safety and Class I, Division 2.

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|---|--|--|
| <b>TMT 112</b>  | <b>INTRINSICALLY SAFE</b><br>Class I / Div. 1 / Groups ABCD / T4/T5/T6<br>Class I / Zone 0 / Ex ia IIC / T4/T5/T6  | <b>NONINCENDIVE</b><br>Class I / Div. 2 / Groups ABCD / T4/T5/T6                               |
| Supply circuit<br>(Terminals 5+ and 6-)   | $V_{max} = U_i \leq 30 \text{ VDC}$ $C_i = 0$<br>$I_{max} = I_i \leq 100 \text{ mA}$ $L_i = 0$<br>$P_{max} = P_i \leq 750 \text{ mW}$  | $V_{max} = U_i \leq 30 \text{ VDC}$ $C_i = 0$<br>$I_{max} = I_i \leq 100 \text{ mA}$ $L_i = 0$ |
| Sensor circuit<br>(Terminals 1, 2, 3 and 4)   | $V_{oc} = U_o \leq 5.0 \text{ VDC}$<br>$I_{sc} = I_o \leq 5.9 \text{ mA}$ $P = P_o \leq 7.2 \text{ mW}$  |  |
| Max. Connecting Values Group A, B IIC<br>(concentrative L, C Group C IIB<br>e.g. cable) Group D IIA | $L_a = L_o = 100 \text{ mH}$ $C_a = C_o = 100 \mu\text{F}$<br>$L_a = L_o = 100 \text{ mH}$ $C_a = C_o = 1000 \mu\text{F}$<br>$L_a = L_o = 100 \text{ mH}$ $C_a = C_o = 1000 \mu\text{F}$ |  |
| Temperature range   | T6: $T_a = -40^\circ\text{C} \dots +55^\circ\text{C}$<br>T5: $T_a = -40^\circ\text{C} \dots +70^\circ\text{C}$<br>T4: $T_a = -40^\circ\text{C} \dots +85^\circ\text{C}$                  |  |
|   | <b>NONINCENDIVE</b><br>Class I / Division 2 / Groups ABCD / T4/T5/T6<br>$V_{max} \leq 35 \text{ VDC}$<br>intrinsic safety barrier not required   |  |

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|                                     |          |                                       |        |                                      |               |
|-------------------------------------|----------|---------------------------------------|--------|--------------------------------------|---------------|
| Edge of working parts ISO 13715<br> |          | Geometrical Tolerancing ISO 2768-mH-E | Series | Scale                                | Volume: [mm³] |
|                                     |          |                                       |        | Material ZD 031R/09/en/01.04         |               |
|                                     |          |                                       |        | Ident.-No. 510 07640                 |               |
|                                     |          | Date                                  | Name   | Title                                |               |
|                                     |          | Drawn 2004-01-26                      | Meroth | CONTROL DRAWING CSA<br>ITEMP TMT 112 |               |
|                                     |          | Check 2004-01-26                      | Meroth |                                      |               |
|                                     |          | Norm                                  |        |                                      |               |
|                                     |          | Sheet size A4                         |        |                                      |               |
|                                     |          | Repl. for:                            |        |                                      |               |
|                                     |          | ENDRESS+HAUSER<br>WETZER              |        | Drawing No.                          | Sheet         |
|                                     |          |                                       |        | 14 18 01 112                         | 1             |
|                                     |          |                                       |        |                                      | Of 1          |
| Index                               | Revision | Date                                  | Name   |                                      |               |
| Part:                               |          |                                       |        |                                      |               |