

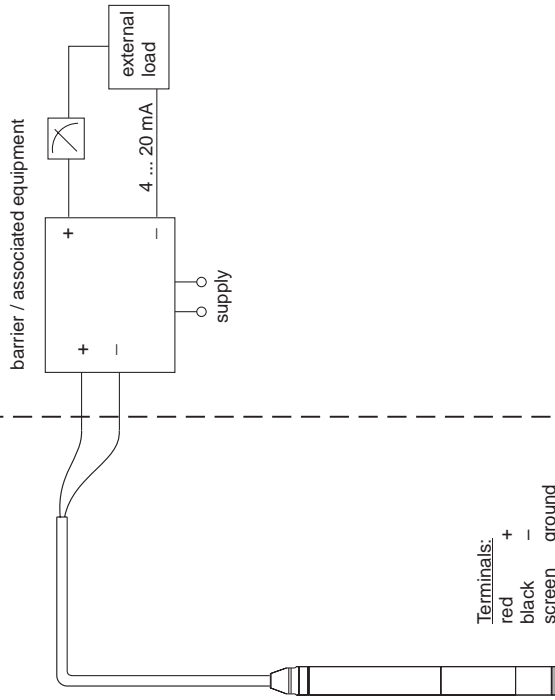
Hazardous location

Class I, DIV. 1, Groups A, B, C, D
 AEx ia IIC T6, Ta = 70°C
 Class I, DIV. 2, Groups A, B, C, D

Non hazardous location

Intrinsically safe (entity), Class I, DIV. 1, Groups A, B, C, D
Hazardous Location Installations

- Control room equipment may not use or generate over 250 V
- Use Factory Mutual Entity-approved intrinsic safety barrier with V_{oc} or $V_t \leq V_{max}$, I_{sc} or $I_t \leq I_{max}$, $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$
 Barrier must be incapable of delivering more than 1 Watt to a matched load.
 Transmitter entity parameters are as follows: $V_{max} = 30$ VDC
 $I_{max} = 133$ mA
 $P_{max} = 1$ W



Ci and Li per table:

Length of sensor cable	Ci (5.3 nF + 180pF/m)	Li (1 µH/m)
5 m	6.2 nF	5 µH
10 m	7.1 nF	10 µH
20 m	8.9 nF	20 µH
30 m	10.7 nF	30 µH
50 m	14.3 nF	50 µH
100 m	23.3 nF	100 µH
200 m	41.3 nF	200 µH
300 m	59.3 nF	300 µH

- Installation should be in accordance with ANSI/ISA RP 12.6 "Installation of intrinsically safe systems for hazardous (classified) locations" and the National Electrical Code (ANSI/NFPA 70).
- Warning: Substitution of Components may impair intrinsic safety.
- Intrinsic safety barrier manufacturer's installation drawing must be followed, when installing this equipment: The configuration of the intrinsic safety barrier(s) must be FMRC approved.
- Use supply wires suitable for 5°C above surrounding ambient.

Non-incendive Class I, DIV. 2, Groups A, B, C, D
Hazardous Location Installation

- Install per National Electrical Code (NEC)
 DIV. 2 barrier required
 max. supply voltage 30 VDC
- Warning: Explosion Hazard – Do not disconnect equipment unless power has been switched off or area is known to be non hazardous.
 Warning: Substitution of Components may impair suitability for Class I, DIV. 2

Note: For non-incendive field circuit evaluations, the input current (I_{max} or I_i) of the receiving device need not match the output current (I_{sc} or I_o) of the barrier/associated equipment supplying the energy.

Table: Entity parameters

sensor:

$V_{max} = 30$ VDC
 $I_{max} = 133$ mA
 $P_{max} = 1$ W
 Ci see table
 Li see table

Agency controlled drawing.
 No changes without prior agency approval.

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 FM / A 30.10.00



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Control drawing (IS) 960503-1009 A

Waterpilot FMX 167

Endress + Hauser

