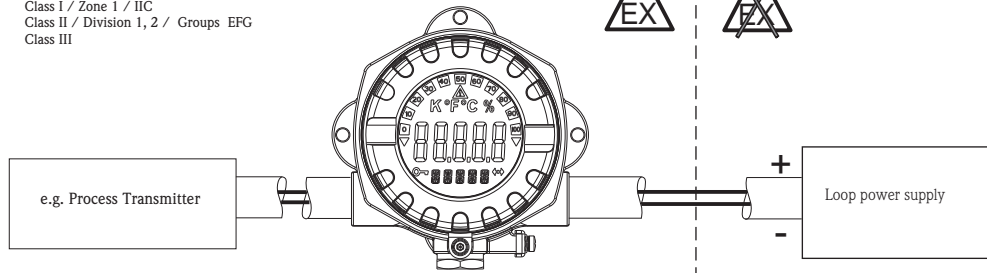


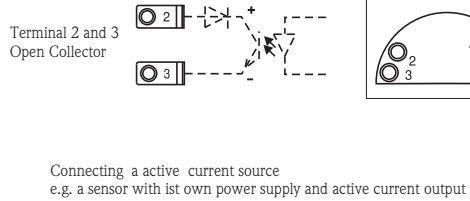
Hazardous (Classified) Location
 Class I / Division 1, 2 / Groups ABCD
 Class I / Zone 1 / IIC
 Class II / Division 1, 2 / Groups EFG
 Class III



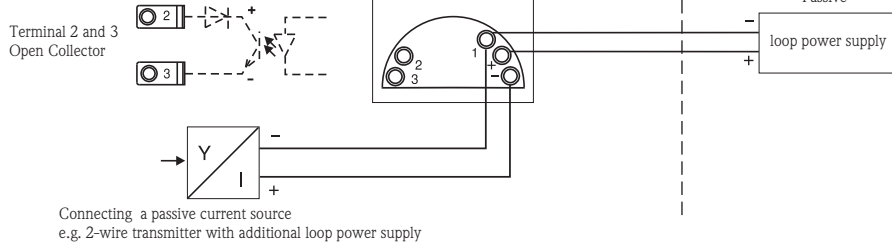
Nonhazardous Locations



Active Configuration



Passive Configuration



NONINCENDIVE, FIELD WIRING PARAMETERS

Signal Input	V _{max}	I _{max}	P _i	C _i	L _i
Terminals	(V)	(mA)	(W)	(μF)	(mH)
Active (+ and -)	35	200	1.75	0	0
Passive (+, 1, and -)	35	200	1.75	0	0
Open Collector					
2 and 3	35	100	0.875	0	0

Installation Notes RIA 141

- FM Approved Apparatus must be installed in accordance with manufacturer's instructions.
- Use supply wires suitable for 5°C above surroundings.
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.



**EXPLOSION PROOF
 DUST IGNITION PROOF**

**XP Class I / Div. 1 / Groups ABCD
 DIP Class II,III / Div. 1 / Groups EFG**

- Install per National Electrical Code (NFPA 70)
- Seal all conduits within 18 inches.
- All conduits must be assembled with a minimum of five full threads engagement.
- Temperature sensor assembly must be FM approved for appropriate area classification.
- Class II use a dust tight seal
- Keep tight when circuits alive
- U ≤ 35 V DC

NONINCENDIVE

NI Class I / Div. 2 / Groups ABCD

- Depending on location install per National Electrical Code (NEC) using wiring methods described in article 500 through article 510. Intrinsic safety barrier not required. V_{max} ≤ 35 V DC.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non hazardous.
- Nonincendive field wiring installation

The Nonincendive Field Wiring Circuit Concept allows interconnection of Nonincendive Field Wiring Apparatus with Associated Nonincendive Field Wiring Apparatus or Associated Apparatus not specifically examined in combination as a system using any of the wiring methods permitted for unclassified locations.

Transmitter Nonincendive Field Wiring parameters are as follows:

Active Configuration Connection requirements:

(+ and -) terminals

The RIA 141 with respect to the supply device:

V_{max} of RIA ≥ V_{oc} of the Associated Nonincendive Field Wiring Apparatus

I_{max} of RIA ≥ I_{sc} Not relevant

P_i of RIA ≥ P_o of the Associated Nonincendive Field Wiring Apparatus

C_i of RIA + C_{cable} ≤ C_a of the Associated Nonincendive Field Wiring Apparatus

L_i of RIA + L_{cable} ≤ L_a of the Associated Nonincendive Field

Wiring Apparatus Passive Configuration Connection requirements:

(+, 1, and -) terminals Associated Nonincendive Field Wiring Apparatus with respect to the Both Nonincendive Field Wiring Apparatus

V_{oc} ≤ V_{max} of RIA and V_{max} of Nonincendive Field Wiring Apparatus

I_{sc} ≤ I_{max} Not relevant

P_o ≤ P_i max of RIA and P_i of Nonincendive Field Wiring Apparatus

C_a ≥ C_i of RIA + C_i of Nonincendive Field Wiring Apparatus + C_{cable}

L_a ≥ L_i of RIA + L_i of Nonincendive Field Wiring Apparatus + L_{cable}

For these current controlled circuits, the parameter I_{max} is not required and need not to be aligned with parameter I_{sc} and I_t of the Associated Nonincendive Field Wiring Apparatus or Associated Apparatus.

Functional ratings

These ratings do not supersede Hazardous Location values

U_{nom} ≤ 35 DC I_{nom} ≤ 4 to 20 mA

Temperature range

T4 -40°C ... +80°C

T5 -40°C ... +70°C

T6 -40°C ... +55°C

	Approved Pfanzelt	Date (yyyy-mm-dd) 2005-04-14	Drawing No. 02 15 00 113	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material 510 10646 ZD 042R/09/en/07.05	Endress+Hauser
Volume (mm³)	Designed Meroth	Date (yyyy-mm-dd) 2004-10-12	Unit RIA 141	Scale 1:1	Title CONTROL DRAWING FM XP/NI/DIP			Series	
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4				Objekt version	