

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

Nonhazardous Locations

Installation Notes RIA14

- 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
- $U \leq 35 \text{ V DC}$

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. $V_{max} \leq 35 \text{ V DC}$.
- 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.

Nonincendive Field Wiring parameters are as follows:

Active Configuration Connection requirements:

(+ and -) terminals

The RIA14 with respect to the supply device:

$V_{max} \text{ of RIA} \geq V_{oc} \text{ of the Associated Nonincendive Field Wiring Apparatus}$

$I_{max} \text{ of RIA} \geq I_{sc} \text{ Not relevant}$

$P_i \text{ of RIA} \geq P_o \text{ of the Associated Nonincendive Field Wiring Apparatus}$

$C_i \text{ of RIA} + C_{cable} \leq C_a \text{ of the Associated Nonincendive Field Wiring Apparatus}$

$L_i \text{ of RIA} + L_{cable} \leq L_a \text{ of the Associated Nonincendive Field}$

Wiring Apparatus Passive Configuration Connection requirements:

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

$V_{oc} \leq V_{max} \text{ of RIA and } V_{max} \text{ of Nonincendive Field Wiring Apparatus}$

$I_{sc} \leq I_{max} \text{ Not relevant}$

$P_o \leq P_i \text{ max of RIA and } P_i \text{ of Nonincendive Field Wiring Apparatus}$

$C_a \geq C_i \text{ of RIA} + C_i \text{ of Nonincendive Field Wiring Apparatus} + C_{cable}$

$L_a \geq L_i \text{ of RIA} + L_i \text{ of Nonincendive Field Wiring Apparatus} + L_{cable}$

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.

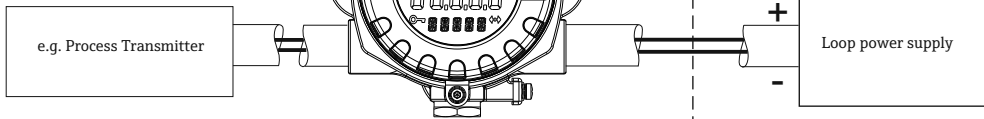
Functional ratings

These ratings do not supersede Hazardous Location values

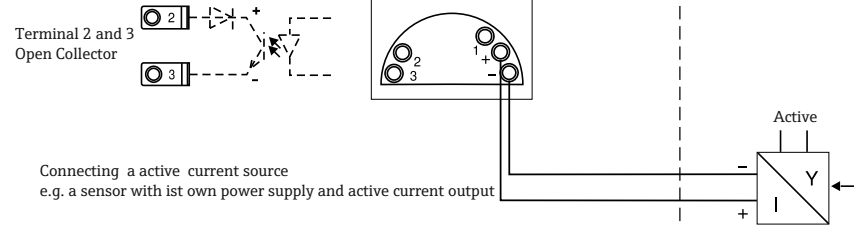
$U_{nom} \leq 35 \text{ DC}$ $I_{nom} \leq 4 \text{ to } 20 \text{ mA}$

Temperature range

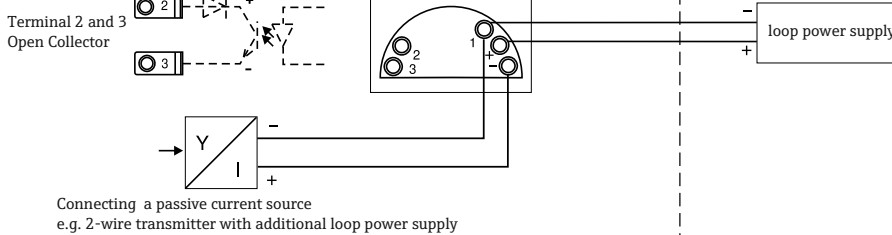
T4 -40°C ... +80°C T5 -40°C ... +70°C T6 -40°C ... +55°C



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

Approved	Pfanzelt	Date (yyyy-mm-dd)	2008-12-08	Drawing No.	12 07 00 113	Dwg.rev.	A	Revision no.	W14304	Revision date (yyyy-mm-dd)	2014-03-04	Name	MP	Material	71252110 ZD00069R/09/EN/13.14	Endress+Hauser
Volume (mm³)	Designed	Pfanzelt	2008-12-04	Unit	RIA14	Scale	1:1	CONTROL DRAWING FM XP/NI/DIP		Series		Objekt version Sheet 1 of 1				
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No.	-	Format	A4	Endress + Hauser Wetzler GmbH+Co. KG Nesselwang / Germany									