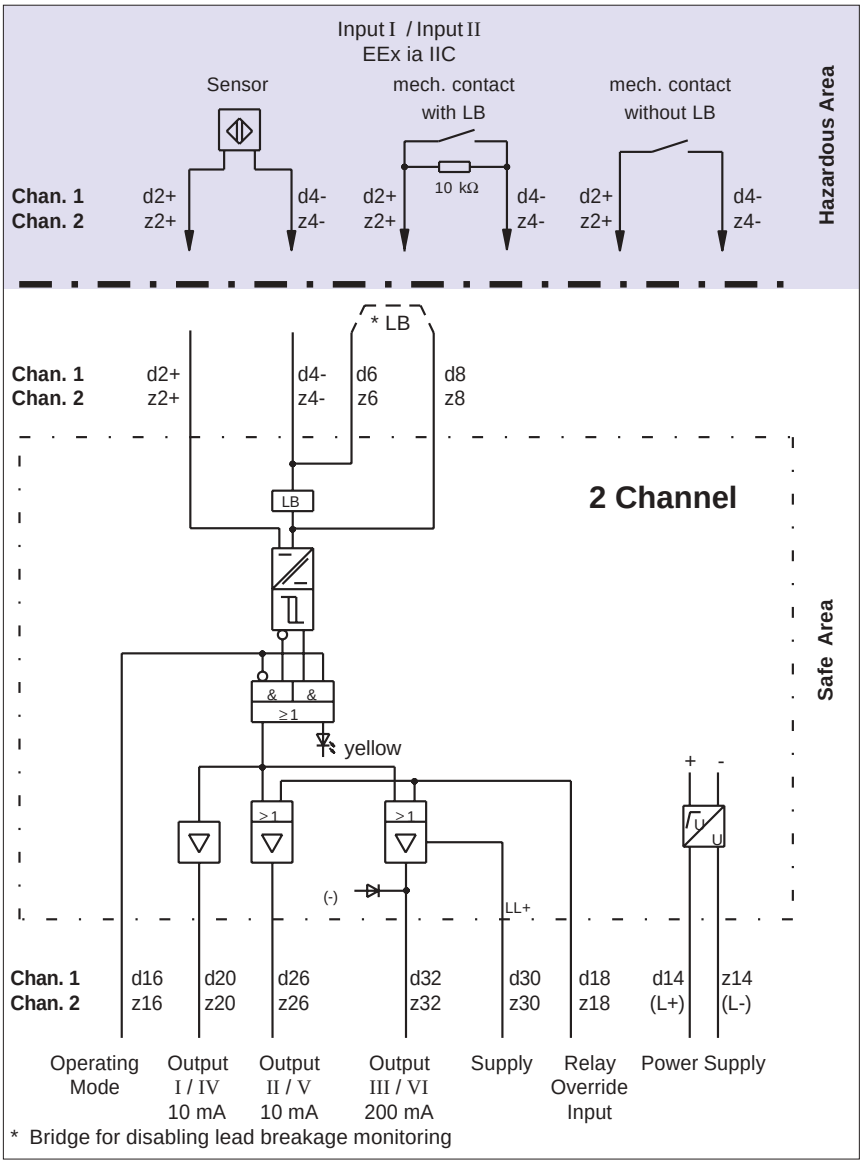
- **2-Channel**
- **Control circuit EEx ia IIC**
- **DC 24 V supply voltage**
- **Reversible operating mode**
- **Lead breakage monitoring (LB) can be disabled**
- **Override input for each of the two transistor outputs per channel**
- **3 active transistor outputs per channel**

The transformer isolated amplifier transmits digital signals from the hazardous area. Sensors per DIN 19234 (NAMUR) or mechanical contacts can serve as inputs. The control circuit can be monitored by lead breakage monitoring.

Notes on connection assignment
Inputs d30; z30 (LL+)
These inputs are internally connected. Supply for transistor outputs d32, z32.

Lead breakage monitoring (LB)
d6, d8; z6, z8
Lead breakage monitoring can be disabled by bridging the above connections. If necessary, the unit can be supplied with the lead breakage monitoring feature disabled with a factory installed jumper on the card.

Mode of operation d16; z16
Logic-1: no reversal of operating mode from input to output
Logic-0: reversal of operating mode from input to output
(see table of oparating modes on page 25)
If necessary, the operating mode can also be selected with a factory installed jumper on the card.

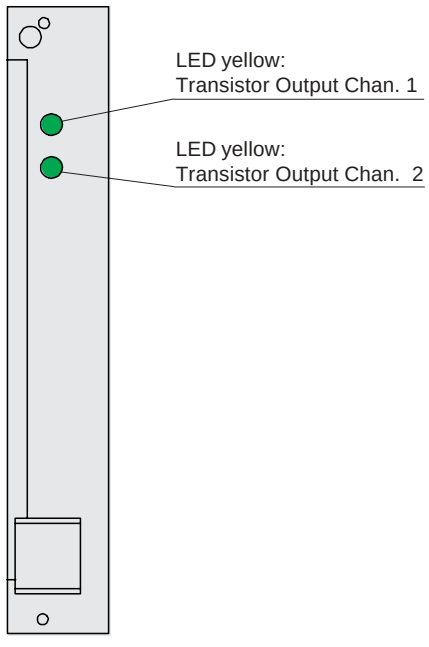


* Bridge for disabling lead breakage monitoring

Front View

Type A

(dimensions see page 16)



Issue Date 20.02.02

Technical data	
Power supply	Connections d14 (L+), z14 (L-)
Nominal voltage	DC 20.4 V ... 27.6 V
Ripple	≤10 %
Nominal current	about 50 mA
Power supply	Connections d30, z30 (LL+)
Nominal voltage	DC 20.4 V ... 27.6 V
Ripple	≤10 %
Nominal current	≤8 mA without output load
Inputs (intrinsically safe)	
Input I:	Connections d2+, d4-
Input II:	Connections z2+, z4-
Nominal values	per DIN 19 234 with respect to NAMUR
Open circuit voltage / short circuit current	about DC 8 V / about 8 mA
Switch point / switch hysteresis	1.2 mA ... 2.1 mA / about 0.2 mA
Input pulse length / pulse interval	≥ 0.5 ms / ≥ 0.5 ms
Lead monitoring	Breakage J ≤0.1 mA
Certificate of Conformity Peak Values	**PTB Nr. Ex-81/2065X** other certifications see www.pepperl-fuchs.com
Max. voltage U_0	12.7 V
Max. current I_0	21 mA
Max. power P_0	66 mW
Allowable circuit values	
Ignition protective class, category	**[EEx ia]** **[EEx ib]**
Explosion group	IIB / IIC IIB / IIC
Max. external capacitance	1.1 µF / 0.37 µF 3.9 µF / 0.8 µF
Max. external inductance	5 mH / 2 mH 260 mH / 70 mH
Inputs (not intrinsically safe)	Connections d16, z16
Signal level Logic-1	DC 15 V ... 30 V
Signal level Logic-0	DC 0 V ... 5 V or B-contact input
Input current	1 mA
Input delay	5 ms ... 20 ms (typically 10 ms)
Outputs (not intrinsically safe)	
Output I, II, IV, V :	Transistor output, active Connections d20; d26; z20; z26
Nominal current	10 mA, short circuit protected
Signal level Logic-1 / Logic-0	(L+) -5 V / 0.9 V or cut off output (leakage currentJ ≤10 µA)
Output III, VI:	Transistor output, active Connections d32; z32
Nominal current	200 mA, short circuit protected
Signal level Logic-1 / Logic-0	(L+) -5 V / cut off output (leakage current J ≤10 µA)
Transfer characteristics	
Switch frequency	≤1 kHz
Galvanic isolation	
Input I ... II / from output I ... VI	Safe galvanic isolation per EN 50 020, voltage peak value 375 V
Input I ... II / from power supply	Safe galvanic isolation per EN 50 020, voltage peak value 375 V
Output / power supply	available
Conformity to standards	
Input	per DIN 19234 (NAMUR)
Climatic conditions	per DIN IEC 721
Ambient temperature	-25 °C ... +70 °C (248 K ... 343 K)
Connection method	48-pin plug connector per DIN 41 612, Series 2, Type F; z, b and d provided
Coding	a3 / c3
Weight	about 160 g

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