



TRANSFORMER ISOLATED BARRIERS FOR POTENTIOMETER KFD2-PT2-EX1 - EEx ia IIC



- 1-channel
- Input EEx ia IIC
- 24 V DC nominal supply voltage
- Current or voltage output
- Accuracy 0.05 %
- EMC acc. to NAMUR NE 21

Replacement device for KFD2-PT-Ex1
Attention: output polarity now 7-, 8+

Function

The KFD2-PT2-Ex1 supplies power to the potentiometers in the hazardous area.

The loop voltages are transmitted. The KFD2-PT2-Ex1 is available with current and voltage outputs (terminals 7 and 8).

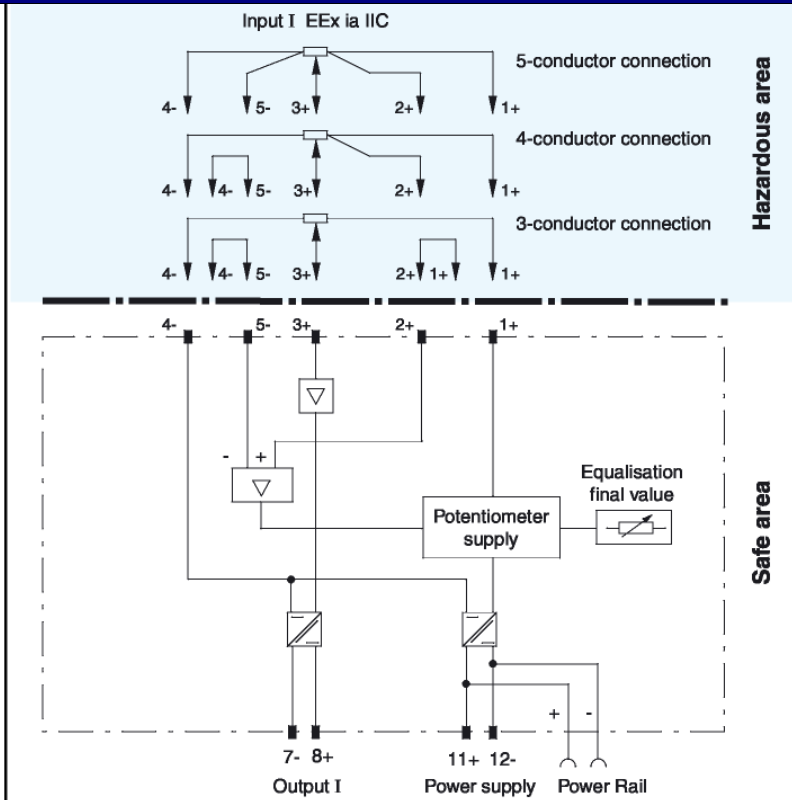
It can be operated in the 3-, 4- or 5-wire mode with the potentiometer.

In the 5-wire mode of operation, the potentiometer voltage is measured at terminals 2 and 5 and automatically readjusted. For a 4-wire connection on the KFD2-PT2-Ex1, terminals 4- and 5- are bridged. With the resistance adjustment on the front housing panel, it is possible to adjust the final value. For potentiometer resistances greater than 1 kOhm, the potentiometer can be used to compensate for lead resistances up to 5 % of the potentiometer value. For potentiometer values in a range of 800 Ohm up to 1 kOhm the adjustment value is 50 Ohm. During adjustment, the potentiometer is set to 100 % of its value and the output signal is adjusted to 100 % of the required value. This adjustment can be repeated setting the potentiometer to 0 %.

Terminals 4 and 5 as well as 1 and 2 must be bridged for a 3-wire connection to the potentiometer.

Application

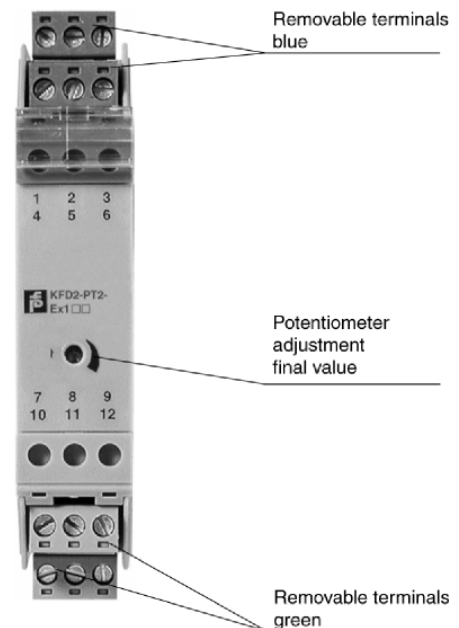
Because of the high transfer accuracy, the unit is well suited for precise path or positioning requirements per potentiometer, reference element, etc.



Composition

Front View

Housing type A4
(see system description)





Max. external capacitance C_a	2,66 μ F	7,99 μ F	21,33 μ F
Max. external inductance L_a	31,9 mH	95,7 mH	272,2 mH
Safety parameter			
CSA control drawing	LR 65756-13		
Control drawing	No. 116-0132		
Connection	terminals 1, 2, 3, 4, 5		
Input I			
Voltage V_{OC}	10,6 V		
Current I_{SC}	31,7 mA		
Explosion group	A&B	C&E	D, F&G
Max. external capacitance C_a	2,6 μ F	7,8 μ F	20,8 μ F
Max. external inductance L_a	34 mH	121 mH	291 mH

Notes

The KFD2-PT2-Ex1 is available with various output options.

Model number	Output	Model number	Output	Model number	Output
KFD2-PT2-Ex1	0 V ... 10 V	KFD2-PT2-Ex1-2	2 V ... 10 V	KFD2-PT2-Ex1-4	0 mA ... 20 mA
KFD2-PT2-Ex1-1	0 V ... 5 V	KFD2-PT2-Ex1-3	1 V ... 5 V	KFD2-PT2-Ex1-5	4 mA ... 20 mA

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. This information can be found under www.pepperl-fuchs.com.

Accessories

PR-03 Power Rail

UPR-03 Power Rail

KFD2-EB2 power feed module

The devices are supplied with 24 V DC through the KFD2-EB2 power feed module and the PR-03 or the UPR-03 Power Rail. Each power feed module monitors and provides protection for groups of as many as 100 individual devices. The PR-03 Power Rail is an insert component for the DIN rail. The UPR-03 Power Rail is a complete unit consisting of an electrical insert and an aluminium DIN rail measuring 35 mm x 15 mm x 2000 mm. The devices are simply snapped in place to make electrical contact.

If a Power Rail is not being used, power can be supplied to the devices directly through the device terminals.

Supplied by:

A.S.P. Electro-Technology Ltd
Specialist Suppliers of Hazardous Area Certified
Electrical Products & Instrumentation



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