



Isolation Switching Amplifier for Initiators



measuring
•
monitoring
•
analysing

KFD-2, KFA-6



- Single channel
- Control circuit EEx ia IIC
- Reversible mode of operation
- Narrow design
- Standard rail mounting
- Protection: IP 20

Z2



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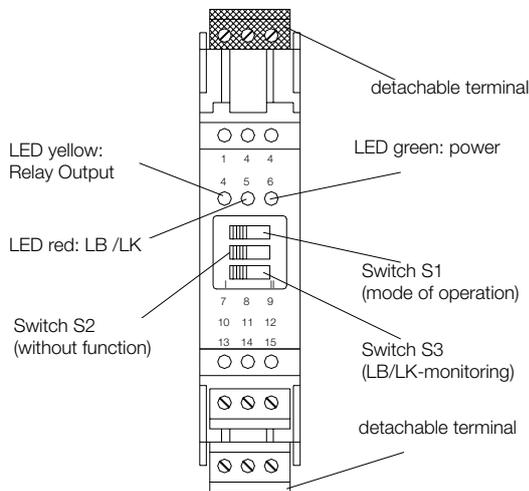
Description

The isolation switching amplifier transmits digital signals from hazardous areas. Sensors according to NAMUR or mechanical contacts may be used as signal transmitters. The control circuit is monitored for line interruption (LB) and line short-circuit (LK).

The input is safely isolated from the output and mains according to DIN EN 50020. Output and mains are isolated from each other according to IEC661140.

The device is fitted with detachable terminals that greatly simplify the installation.

Front view



Order Details

Description	Order number	
	Supply 24 V _{DC}	Supply 230 V _{AC}
Isolation switching amplifier, 1-channel	KFD2-SR2-Ex1.W	KFA6-SR2-Ex1.W
Isolation switching amplifier, 2-channel	KFD2-SR2-Ex2.W	-

Technical Details

Auxiliary power

Nominal voltage:	230 V _{AC} (45 ... 65 Hz) or 24 V _{DC}
Max. voltage satisfying safety requirements:	253 V _{AC}
Power intake:	≤ 1 W (KFA6)
Rated current:	20 ... 23 mA
Ripple factor:	≤ 10 % (KFD2)

Input

Intrinsically safe according to NAMUR and EN 60947-5-6

Floating voltage:	approx. 8 V _{DC}
Short-circuit current:	approx. 8 mA
Switch point:	1.2 - 2.1 mA
Switching hysteresis:	approx. 0.2 mA
Input pulse length:	≥ 20 ms
Input interpulse period:	≥ 20 ms
Power monitoring:	rupture I ≤ 0,1 mA, short-circuit I > 6 mA

Ex-Protection: II (1) GD [EEx ia] IIC

Max. values according to certificate of conformity

Voltage U ₀ :	10.6 V for KFA6 10.5 V for KFD2
Current I ₀ :	19.1 mA for KFA6 13 mA for KFD2
Power P ₀ :	51 mW for KFA6 34 mW for KFD2
Ex Protection:	EEx ia and EEx ib

Allowed connected values

	KFD2-SR2-Ex1.W			KFA6-SR2-Ex1.W		
	IIA	IIB	IIC	IIA	IIB	IIC
Explosion category	IIA	IIB	IIC	IIA	IIB	IIC
Exterior capacitance	75 µF	16.8 µF	2.41 µF	72 µF	16.2 µF	2.32 µF
Exterior inductivity	1 H	840 mH	210 mH	780 mH	390 mH	97 mH

Output

Changeover contact, not intrinsically safe

Contact loading:	253 V _{AC} / 2 A/cos φ > 0.7 40 V _{DC} / 2 A resistive load
Mechanical service life:	10 ⁷ switching cycles
Delay:	approx. 20 ms
Operating frequency:	< 10 Hz
Case material:	Makrolon®
Dimensions:	118 x 20 x 115 mm (HxWxD)
Protection:	IP 20
Ambient temperature:	-20 ... +60 °C
Weight:	approx. 150 g