

Isolation Switching Amplifier for NAMUR or mechanical contacts



measuring
•
monitoring
•
analyzing

KFD2 KFA5



- Single or Dual Channel
- Control Circuit EEx ia IIC
- Narrow Design
- Standard Rail Mounting
- Protection: IP 20
- 24 V_{DC} or 110 V_{AC} Power
- NAMUR or Dry Contact Inputs
- SPDT Relay Output



Order from: **C A Briggs Company**
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Description

The KFD2 and KFA5 isolation switching amplifiers are typically used to transmit signals from hazardous to non-hazardous areas. Sensors in accordance with NAMUR or mechanical contacts can be used as signal inputs. The control circuit is monitored for line interruption (LB) and line short-circuit (LK). The input signal is isolated from both the output and the input power, according to DIN EN 60947-5-6 (NAMUR). Both the output and input power are isolated from each other according to IEC 60529:2001. Both models are fitted with detachable terminals, allowing for a simple installation.



Technical Details

Input (Intrinsically safe according to NAMUR and EN 60947-5-6)

Floating Voltage:	appx. 8 V _{DC}
Short-Circuit Current:	appx. 8 mA
Switch Point:	1.2...2.1 mA
Switching Hysteresis:	appx. 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) G [Ex ia] IIC, II (1) D [Ex ia] IIIC

Maximum Values (According to Certificate of Conformity)

Voltage U₀:	10.6 V (KFA5) 10.5 V (KFD2)
Current I₀:	19.1 mA (KFA5) 13 mA (KFD2)
Power P₀:	51 mW (KFA5) 34 mW (KFD2)
Protection Type:	EEx ia and EEx ib

Output (SPDT contact, not intrinsically safe)

Max. Contact Loading:	253 V _{AC} / 2 A / cos φ > 0.7 40 V _{DC} / 2 A resistive load
Service Life:	10 ⁷ switching cycles
Delay:	appx. 20 ms
Switching Frequency:	< 10 Hz

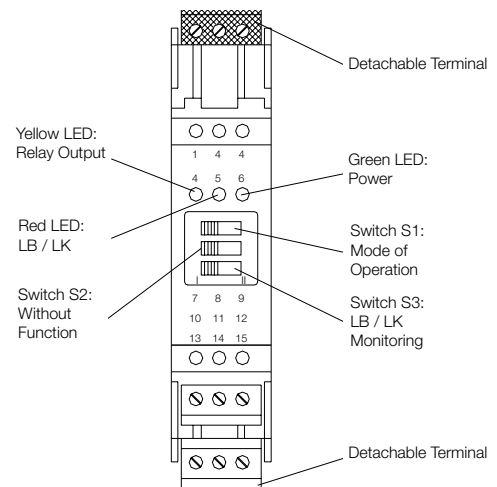
Electrical Isolation: According to IEC/EN 61010-1
Rated insulation voltage 300 V_{eff}

Directive Conformity

Electromagnetic:	2004/108/EC, EN 61326-1:2006
Low Voltage:	2006/95/EC, EN 6101091:2010

Conformity

Electromagnetic:	NE 21:2006
Protection Degree:	IEC 60529:2001
Input:	EN 60947-5-6:2000



Technical Details

Input Power

Nominal Voltage:	115 V _{AC} ±10%, 60 Hz or 24 V _{DC}
Power Consumption:	≤ 1 W (KFA5), ≤ 0.9 W (KFD2)
Ripple Factor:	≤ 10% (KFD2)

Case Material:	Macrolon®
Dimensions:	119 x 20 x 115 mm
Protection:	IP 20
Ambient Temperature:	-4...140 °F
Weight:	0.33 lb

Order Details

Description	24 V _{DC} Supply	110 V _{AC} Supply
Isolation Switching Amplifier, 1-Channel	KFD2-SR2-Ex1.W	KFA5-SR2-Ex1.W
Isolation Switching Amplifier, 2-Channels	KFD2-SR2-Ex2.W	KFA5-SR2-Ex2.W