



Pepperl Fuchs Frequency Converter with Trip Values KFU8-UFC-1.D Line fault detection (LFD)

Our Product Introduction

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Basic Information

- Place of Origin: Germany
- Brand Name: PEPPERL FUCHS
- Model Number: KFU8-UFC-1.D
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: carton
- Delivery Time: Negotiable
- Payment Terms: T/T
- Supply Ability: 100pcs per month



Product Specification

- Manufacturer: PEPPERL FUCHS
- Product No: KFU8-UFC-1.D
- Connection: Terminals 23, 24
- Programming Interface: Programming Socket
- Connection Side: Field Side
- Input Resistance: 4.7 KΩ
- Pulse Duration: > 50 μs
- Input Frequency: 0.001 ... 10000 Hz
- Highlight: **Pepperl Fuchs frequency converter with LFD, Frequency converter with trip values, Line fault detection safety barrier**



More Images



Product Description

Pepperl Fuchs Frequency Converter with Trip Values KF8-UFC-1.D

1-channel signal conditioner

Universal usage at different power supplies

Input for 2- or 3-wire sensors, NAMUR sensors or dry contacts

Input frequency 1 mHz ... 10 kHz

Current output 0/4 mA ... 20 mA

Relay contact and transistor output

Start-up override

Line fault detection (LFD)

Up to SIL 2 acc. to IEC/EN 61508 / IEC/EN 61511

General specifications

Signal type Digital Input

Functional safety related parameters

Safety Integrity Level (SIL) SIL 2

Supply

Connection terminals 23, 24

Rated voltage 20 ... 90 V DC / 48 ... 253 V AC 50 ... 60 Hz

Power dissipation/power consumption ≤ 2 W ; 2.5 VA / 2.2 W ; 3 VA

Interface

Programming interface programming socket

Input

Connection side field side

Connection Input I: 2-wire sensor: terminals 1+, 3- three wire sensor: terminals 1+, 2- and 3

input II: terminals 13+, 14- start-up override;

Input I 2- or 3-wire sensor, sensor acc. to EN 60947-5-6 (NAMUR) or mechanical contact

Open circuit voltage/short-circuit current 22 V / 40 mA

Input resistance 4.7 k Ω

Switching point/switching hysteresis logic 1: > 2.5 mA ; logic 0: < 1.9 mA

Pulse duration > 50 μ s

Input frequency 0.001 ... 10000 Hz

Line fault detection breakage $I \leq 0.15$ mA; short-circuit $I > 4$ mA

Input II startup override: 1 ... 1000 s, adjustable in steps of 1 s

Active/Passive $I > 4$ mA (for min. 100 ms) / $I < 1.5$ mA

Open circuit voltage/short-circuit current 18 V / 5 mA

Output

Connection side control side

Connection output I: terminals 10, 11, 12

output II: terminals 16, 17, 18

output III: terminals 19+, 20-

output IV: terminals 8+, 7-

Output I, II signal, relay

Contact loading 250 V AC / 2 A / $\cos \varphi \geq 0.7$; 40 V DC / 2 A

Mechanical life 5×10^7 switching cycles

Energized/De-energized delay approx. 20 ms / approx. 20 ms

Output III electronic output, passive

Contact loading 40 V DC

Signal level 1-signal: (L+) -2.5 V (50 mA, short-circuit/overload proof)

0-signal: blocked output (off-state current ≤ 10 μ A)

Output IV analog

Current range 0 ... 20 mA or 4 ... 20 mA

Open loop voltage max. 24 V DC

Load max. 650 Ω

Fault signal downscale $I \leq 3.6$ mA , upscale ≥ 21.5 mA (acc. NAMUR NE43)

Transfer characteristics

Input I

Measuring range 0.001 ... 10000 Hz

Resolution 0.1 % of the measurement value , ≥ 0.001 Hz

Accuracy 0.1 % of the measurement value , > 0.001 Hz

Measuring time < 100 ms

Influence of ambient temperature 0.003 %/K (30 ppm)

Output I, II

Response delay ≤ 200 ms

Output IV

Resolution < 10 μ A

Accuracy < 20 μ A

Influence of ambient temperature 0.005 %/K (50 ppm)

Galvanic isolation

Input I/other circuits reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Output I, II/other circuits reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Mutual output I, II, III reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Output III/power supply reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Output III/IV basic insulation according to IEC/EN 61010-1, rated insulation voltage 50 Veff

Output IV/power supply reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

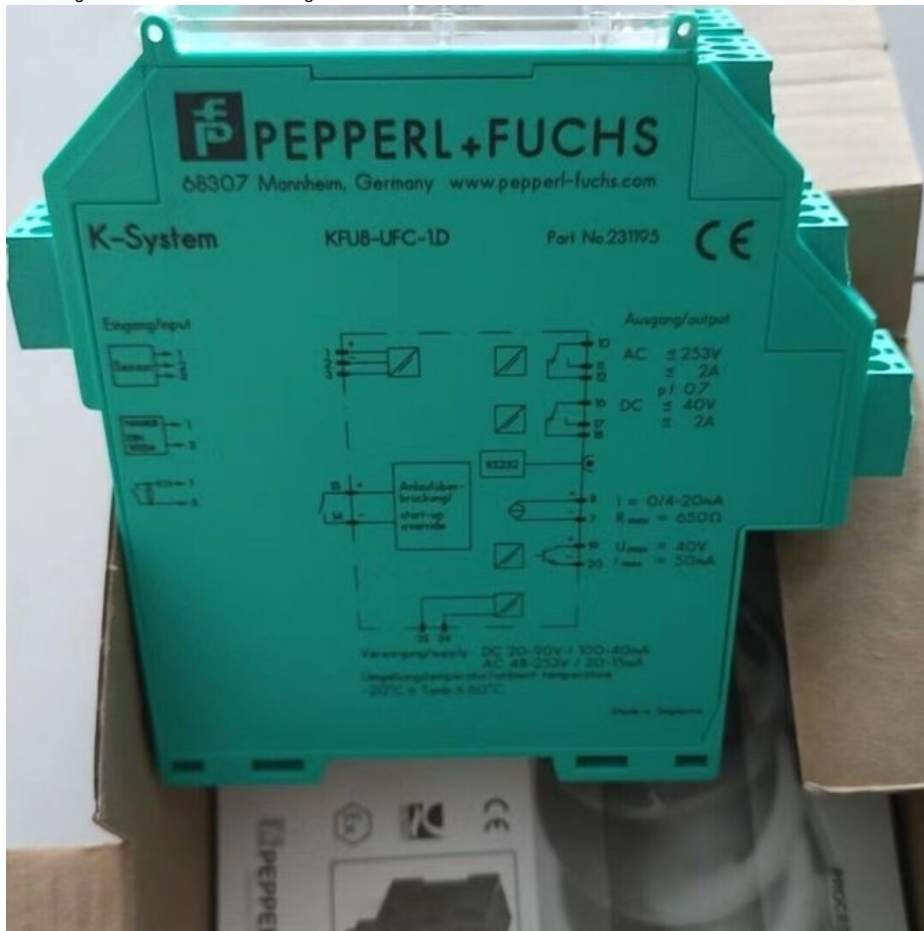
Start-up override/power supply reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Interface/power supply reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Interface/output III basic insulation according to IEC/EN 61010-1, rated insulation voltage 50 Veff

Indicators/settings

Display elements LEDs , display
 Control elements Control panel
 Configuration via operating buttons
 via PACTware
 Labeling space for labeling at the front
 Directive conformity
 Electromagnetic compatibility
 Directive 2014/30/EU EN 61326-1:2013 (industrial locations)
 Low voltage
 Directive 2014/35/EU EN 61010-1:2010
 Conformity
 Electromagnetic compatibility NE 21:2006
 Degree of protection IEC 60529:2001
 Ambient conditions
 Ambient temperature -20 ... 60 °C (-4 ... 140 °F)
 Mechanical specifications
 Degree of protection IP20
 Connection screw terminals
 Mass 300 g
 Dimensions 40 x 119 x 115 mm (1.6 x 4.7 x 4.5 inch) (W x H x D) , housing type C2
 Height 119 mm
 Width 40 mm
 Depth 115 mm
 Mounting on 35 mm DIN mounting rail acc. to EN 60715:2001



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