



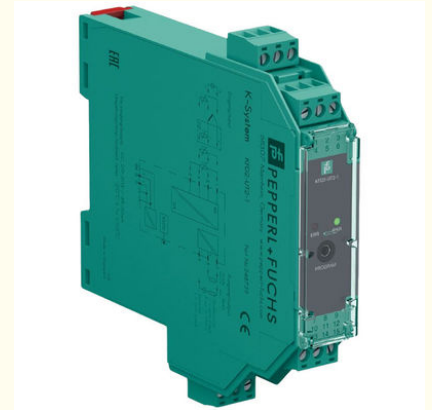
2 4 Wire PEPPERL FUCHS Universal Temperature Converter KFD2-UT2-1 Sink Source Mode

Our Product Introduction

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Basic Information

- Place of Origin: Germany
- Brand Name: PEPPERL FUCHS
- Model Number: KFD2-UT2-1
- 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: KFD2-UT2-1
- Current Range: 0 ... 20 MA Or 4 ... 20 MA
- Lead Resistance: Max. 50 Ω Per Line
- Types Of Measuring: 2-, 3-, 4-wire Connection
- Connection Side: Field Side
- Power Dissipation: ≤ 0.98 W
- Highlight: 2 wire Universal Temperature Converter,
4 wire Universal Temperature Converter,
KFD2-UT2-1



More Images



Product Description

PEPPERL FUCHS Universal Temperature Converter KFD2-UT2-1 Sink or source mode

General specifications

Signal type Analog input

Functional safety related parameters

Safety Integrity Level (SIL) SIL 2

Supply

Connection terminals 14+, 15- or power feed module/Power Rail

Rated voltage 20 ... 30 V DC

Ripple within the supply tolerance

Power dissipation $\leq 0.98 \text{ W}$

Power consumption max. 0.98 W

Interface

Programming interface programming socket

Input

Connection side field side

Connection terminals 1, 2, 3, 4

RTD type Pt10, Pt50, Pt100, Pt500, Pt1000 (EN 60751: 1995)

type Pt10GOST, Pt50GOST, Pt100GOST, Pt500GOST, Pt1000GOST (6651-94)

type Cu10, Cu50, Cu100 (P50353-92)

type Ni100 (DIN 43760)

Measuring current approx. $200 \mu\text{A}$ with RTD

Types of measuring 2-, 3-, 4-wire connection

Lead resistance max. 50Ω per line

Measurement loop monitoring sensor breakage, sensor short-circuit

Thermocouples type B, E, J, K, N, R, S, T (IEC 584-1: 1995)

type L (DIN 43710: 1985)

type TXK, TXKH, TXA (P8.585-2001)

Cold junction compensation external and internal

Measurement loop monitoring sensor breakage

Potentiometer 0 ... $20 \text{ k}\Omega$ (2-wire connection), $0.8 \dots 20 \text{ k}\Omega$ (3-wire connection)

Voltage selectable within the range $-100 \dots 100 \text{ mV}$

Input resistance $\geq 1 \text{ M}\Omega$ ($-100 \dots 100 \text{ mV}$)

Output

Connection side control side

Connection output I: terminal 7: source (-), sink (+), terminal 8: source (+), terminal 9: sink(-)

Output Analog current output

Current range 0 ... 20 mA or $4 \dots 20 \text{ mA}$

Fault signal downscale 0 or 2 mA , upscale 21.5 mA (acc. NAMUR NE43)

Source load 0 ... 550Ω

open-circuit voltage $\leq 18 \text{ V}$

Sink Voltage across terminals 5 ... 30 V . If the current is supplied from a source $> 16.5 \text{ V}$, series resistance of $\geq (V - 16.5)/0.0215 \Omega$ is needed, where V is the source voltage.

The maximum value of the resistance is $(V - 5)/0.0215 \Omega$.

Transfer characteristics

Deviation

After calibration Pt100: $\pm (0.06 \text{ \% of measurement value in K} + 0.1 \text{ \% of span} + 0.1 \text{ K (4-wire connection)})$

thermocouple: $\pm (0.05 \text{ \% of measurement value in } ^\circ\text{C} + 0.1 \text{ \% of span} + 1 \text{ K (1.2 K for types R and S)})$, includes $\pm 0.8 \text{ K}$ fault of the cold junction compensation (CJC)

mV: $\pm (50 \mu\text{V} + 0.1 \text{ \% of span})$

potentiometer: $\pm (0.05 \text{ \% of full scale} + 0.1 \text{ \% of span, (excludes faults due to lead resistance)})$

Influence of ambient temperature Pt100: $\pm (0.0015 \text{ \% of measurement value in K} + 0.006 \text{ \% of span})/\text{K } \Delta\text{Tamb}^*)$

thermocouple: $\pm (0.02 \text{ K} + 0.005 \text{ \% of measurement value in } ^\circ\text{C} + 0.006 \text{ \% of span})/\text{K } \Delta\text{Tamb}^*)$, influence of cold junction compensation (CJC) included

mV: $\pm (0.01 \text{ \% of measurement value} + 0.006 \text{ \% of span})/\text{K } \Delta\text{Tamb}^*)$

potentiometer: $\pm 0.006 \text{ \% of span}/\text{K } \Delta\text{Tamb}^*)$

*) ΔTamb = ambient temperature change referenced to $23 \text{ }^\circ\text{C}$ (296 K)

Influence of supply voltage $< 0.01 \text{ \% of span}$

Influence of load $\leq 0.001 \text{ \% of output value per } 100 \Omega$

Reaction time worst case value (sensor breakage and/or sensor short circuit detection enabled)

mV: 1 s , thermocouples with CJC: 1.1 s , thermocouples with fixed reference temperature: 1.1 s , 3- or 4-wire RTD: 920 ms , 2-wire RTD: 800 ms ,

Potentiometer: 2.05 s



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