



- 1-channel
- 24 V DC nominal supply voltage
- Conversion of current to voltage or voltage to current
- Elevation of the "life zero"
- Accuracy 0.1 %
- EMC acc. to NAMUR NE 21

**Function**

The KFD2-CD-1.32 transmits an electrical unit signal. Input, output and power supply are galvanically isolated from each other. The conversion of a current signal into a voltage signal or vice versa is possible. The device can be delivered with various options.

**Current input option**

A current limit circuit in series to terminal 9 protects the device from damage. The max. voltage drop across the input is 4 V DC), allowing for the connection of several KFD2-CD-1.32 input circuits in series (signal duplication, galvanically duplication).

**Voltage input option**

The signal is transmitted to terminals 9 and 10 across an amplifier and the DC/DC converter within the allowable voltage range. A voltage limiter circuit protects the amplifier from incorrect input switching and overvoltage, but will draw current through a 50 mA fuse during operation. The fuse can be changed only by the manufacturer.

**Current output option**

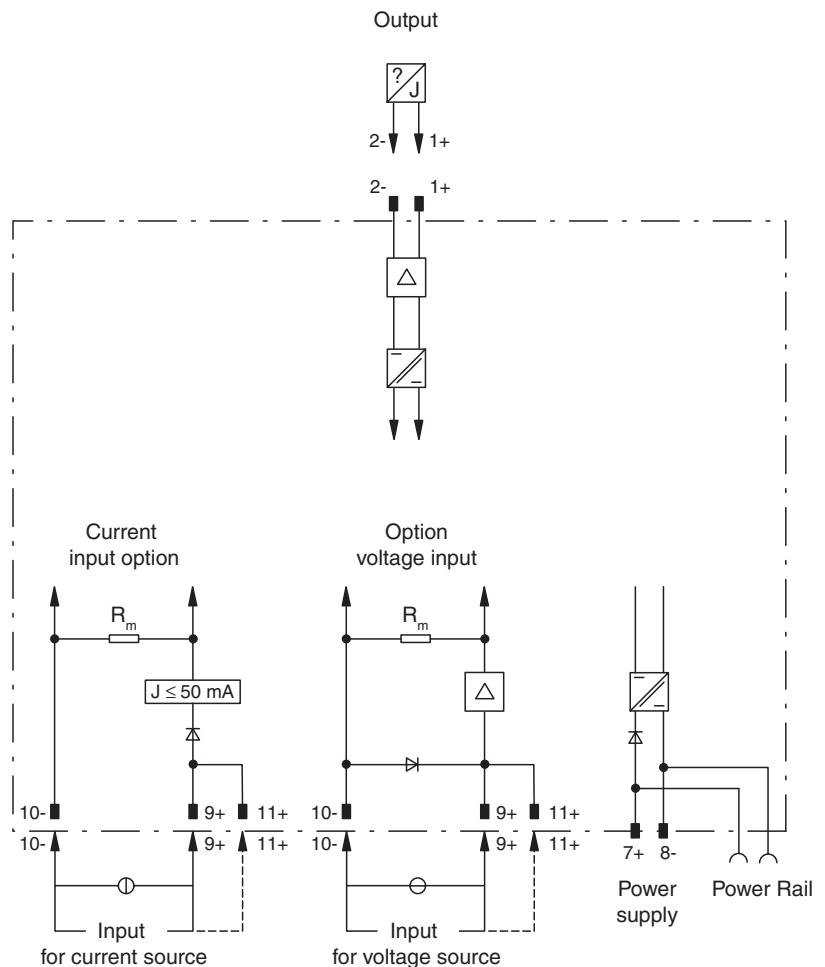
The open circuit voltage is DC 24 V within the allowable supply voltage range at terminals 1 and 2. The maximum load that can be applied is 850 Ohm.

**Voltage output option**

At least 20 mA is available within the allowable supply voltage range at terminals 1 and 2 which means that with 10 V output voltage, a load of at least 500 Ohm must be connected.

**Application**

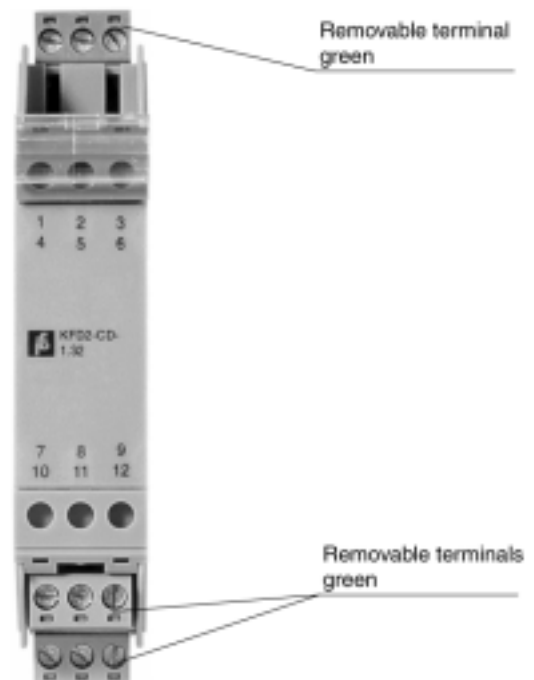
Used to drive I/P converters and valve positioners.



**Composition**

Front View

Housing type A4  
(see system description)



<b>Supply</b>	
Connection	Power Rail or terminals 7+, 8-
Rated voltage	20 ... 35 V DC within the supply tolerance
Rated current	current output: ≤ 50 mA voltage output: ≤ 20 mA
<b>Input</b>	
Connection	terminals 9+, 10-, 11+
Limit	optional current input: input current: approx. ≤40 mA ; input voltage: ≤ 35 V optional voltage output: 12 V DC
Transmission range	optional current input: 0 ... 20 mA ; optional voltage input: 0 ... 10 V
Current	optional voltage input: ≤ 10 μA up to 50 °C at 10 V
Voltage	optional current input: ≤ 4 V at 20 mA
<b>Output</b>	
Connection	terminals 1+, 2-
Current	0 ... 20 mA
Voltage	17 V at 20 mA
Load	≤ 850 Ω
<b>Transfer characteristics</b>	
Deviation	
After calibration	≤ ± 0.1 % incl. non-linearity and hysteresis at 20 °C (293 K)
Temperature	≤ ± 0.01 %
Rise time	< 10 ms
<b>Electrical isolation</b>	
Input/Output	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Input/Power supply	basic insulation acc. to DIN EN 50178, rated insulation voltage of AC 50 V
Output/Power supply	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
<b>Standard conformity</b>	
Coordination of insulation	acc. to DIN EN 50178
Electrical isolation	acc. to DIN EN 50178
Electromagnetic compatibility	acc. to EN 50081-2 / EN 50082-2, NAMUR NE 21
Climatic conditions	acc. to DIN IEC 721
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
<b>Mechanical specifications</b>	
Protection degree	IP20
Mass	approx. 120 g

Notes

Input/output mode

Type	Input	Output
KFD2-CD-1.32	0/4 mA ... 20 mA	0/4 mA ... 20 mA
KFD2-CD-1.32-1	4 mA ... 20 mA	0 mA ... 20 mA
KFD2-CD-1.32-2	0 mA ... 20 mA	4 mA ... 20 mA
KFD2-CD-1.32-4	1 V ... 5 V	0 mA ... 20 mA
KFD2-CD-1.32-6	0 V ... 10 V	0 mA ... 20 mA
KFD2-CD-1.32-8	0 V ... 10 V	4 mA ... 20 mA
KFD2-CD-1.32-12	0/4 mA ... 20 mA	0/2 V ... 10 V
KFD2-CD-1.32-13	4 mA ... 20 mA	0 V ... 10 V
KFD2-CD-1.32-15	0/1 V ... 5 V	0/1 V ... 5 V
KFD2-CD-1.32-15	0/2 V ... 10 V	0/2 V ... 10 V

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.

