

Measuring transducers

VI40 for DC current VU40 for DC voltage

VI40 and VU40 are transducers converting measured quantities of current and voltage into a proportional load independent DC signal.

The output signal can be connected to one or several receiving instruments such as panel indicators, recorders, controllers etc. The transducers have galvanic separation between in- and output and auxiliary supply.

The transducers are mounted directly on profiled bar 35 EN 50022. Connection to selfopening clamps for max 2,5 mm 2 wires. The transducers are manufactured according to IEC688.

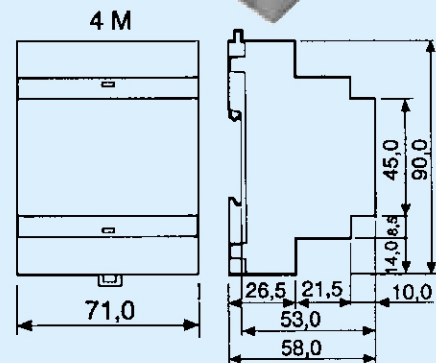
Order facts:

Type	Output	External load
VI40-151 VU40-151	0 – 5 ± 5 mA	0-2000 Ω
VI40-152 VU40-152	0 □ 10 ± 10 mA	0-1000Ω
VI40-153 VU40-153	0 □ 20 ± 20 mA	0- 500Ω
VI40-154 VU40-154	4 □ 20 mA	0- 500Ω
VI40-155 VU40-155	0 □ 10 ± 10 V	>700Ω

Orderform:

Measuring transducer for DC voltage

Type VU40-153
 Measuring range 0 – 250 VDC
 Output 0 – 20 mA
 Power supply 230 V, 50 Hz



Technical data

Input VI40

Range min 0 □ 0,5 mA (±0,25 mA)
 max 0 □ 250 mA (±250 mA)
 Input impedance voltage drop 1 V
 (50Ω at 20 mA)
 Overload capacity $3 \times I_{in}$ continuously, $8 \times I_{in}$,
 1 s (max 750 mA)

Input VU40

Range 0-60 mV to 300 V or
 ±30 mV to ±300 V
 Input impedance 10 kΩ/V
 Overload capacity <3 V, $3 \times U_{in}$ continuously
 <3 V, $10 \times U_{in}$, 1 s
 >3 V, $3 \times U_{in}$, 1 s

Output

Output signal (span) min 0 □ 1 mA,
 max 0 □ 20 mA
 Range 0□5/10/20, 4-20 mA
 Load max 10 V
 Current limitation <30 mA
 Voltage 0 □ 10 V
 Burden >700Ω
 Ripple <1% p.p

General data

Accuracy <0,2%
 Linearity error <0,1%
 Response time 0 □ 90 <30 ms
 Temperature influence <0,1%/10°C
 Temperature range -25□+60°C operation
 -40□+70°C storage
 Test voltage 3,7 kV, 50 Hz, 1 min
 Power supply AC 24, 110, 230 V ±15%,
 47□70 Hz, ca 2 VA
 Universal AC/DC 20□85 V AC/DC
 80□250 V AC/DC

Options on request

Standards

General standards for measuring transducers
 EN60688, IEC688

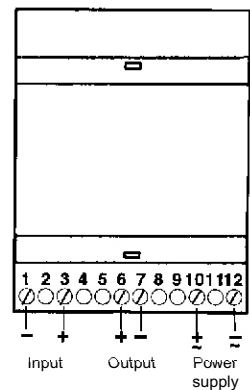
EMC emission EN50081-2

Safety EN61010-1, IEC1010-1

Inputs overvoltage cat. III

Outputs overvoltage cat. II

Pollution degree 2



Design

The transducer consists of an input stage where the input signal is converted to a mathing current signal that goes via a galvanic separation stage - where the signal is chopped, transformed and rectified - to the output amplifier.

The AC power supply comes from a transformer that gives a galvanic separation. Those parts that need separate power get it via a rectifying stage. The DC power comes from a switched unit that gives galvanic separation.

*) At certain frequencies minor deviations from the class accuracy may occur during the disturbance.