

U8557560-230 - Sdílet Measurement Amplifier U (230 V, 50/60 Hz) Order code: 5401.1020742



Cena bez DPH

552,00 Eur

Price with VAT

667,92 Eur

Parameters

Devices - filter

Devices for measuring power and energy

Quantitative unit

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Measurement amplifier U amplifies low-amplitude measurement signals from low-resistance signal sources for measurement with any chosen voltmeter or oscilloscope. By using an external shunt resistor it is also possible to measure small currents. Offset voltages can be compensated using coarse and fine offset adjustment knobs. Amplification (gain) can be selected in ranges from 0 to 5 powers of ten. High-frequency noise or other interference signals are filtered out by means of a low-pass filter with step-wise selectable time constants between 0 and 3 seconds. The output voltage has the same sign as the input voltage.

Technical Data:

- Input resistance: 10 kohm
- Output resistance: 300 ohm
- Offset voltage drift: < 2 $\mu\text{V/K}$ (after 15 mins. operation approx.)
- Gain factors: 100; 101; 102; 103; 104; 105
- Tolerance for gain factors: < 2.5 %
- Input voltage: max. $\pm 12\text{ V}$
- (overload protected for brief transients up to 100 V)
- Output voltage: 0 ... $\pm 12\text{ V}$
- (short-circuit protected)
- Power supply (via plug-in supply provided): 12 V AC
- Ambient temperature: 5°C ... 23°C ... 40°C
- Storage temperature: -20 ... 70°C
- Relative humidity: <85%
- no condensation
- Operational alignment: Horizontal
- Contamination level: 2
- Protection class: IP20
- Dimensions: 170x105x50 mm³ approx.
- Weight: 335 g approx.

Measurement and frequency ranges (relative to 1 V output voltage)

Gain	Input voltage	Current through RShunt = 100 ohm	Frequency
10 ⁰	1 V	10 mA	0 ... 25 kHz
10 ¹	100 mV	1 mA	0 ... 25 kHz
10 ²	10 mV	100 μA	0 ... 25 kHz
10 ³	1 mV	10 μA	0 ... 20 kHz
10 ⁴	100 μV	1 μA	0 ... 7 kHz
10 ⁵	10 μV	100 nA	0 ... 7 kHz

Cut-off frequency for switchable low-pass filter

Time constant	Cut-off frequency
0.0 s	See Table 1
0.1 s	1.6 Hz
0.3 s	0.5 Hz
1.0 s	0.16 Hz
3.0 s	0.05 Hz