

PANEL-MOUNT VOLT/AMMETER

COMPACT DC VOLTAGE AND CURRENT METER UP TO 100 V / 100 A

JOY-IT

SPECIAL FEATURES

- ✓ Measures 0–100 V DC and 0–100 A DC simultaneously
- ✓ External shunt resistor for accurate high-current measurement
- ✓ Integrated calibration potentiometer for fine adjustment
- ✓ Dual 3-digit LED displays – red (voltage), green (current)
- ✓ Compact panel design with only 48 × 29 × 22 mm
- ✓ Wide supply range (3.5–30 V DC) and fast 500 ms refresh rate



The COM-VAM01 is a versatile and precise digital panel meter for simultaneous measurement of DC voltage and current. Designed for reliable use in laboratory, industrial, and mobile DC systems, it offers a wide measuring range and easy integration into a variety of applications such as power supplies, battery systems, or solar controllers.

The device supports an operating voltage of 3.5 – 30 V DC, measures voltages up to 100 V DC, and currents up to 100 A DC with a fine resolution of 0.1 V / 0.1 A. Both measured values are displayed separately on bright, high-contrast 3-digit LED segment displays, featuring 0.28" digit height per display. The red display indicates voltage, while the green display shows the current.

For high-current measurement, the COM-VAM01 uses an external precision shunt resistor, allowing safe, low-loss measurement even at high load currents. The included calibration potentiometer enables fine adjustment of the current reading to ensure long-term measurement accuracy.

With a refresh rate of 500 ms and a measurement accuracy of $\pm 1\% + 2$ digits, the device provides fast and reliable readings for real-time monitoring. The compact design (48 × 29 × 22 mm) and lightweight construction make it easy to integrate into front panels or enclosures, while the wide operating temperature range (–10 °C to +60 °C) ensures stable performance under demanding conditions.

Thanks to its four-wire system for current measurement and an additional voltage-sense wire, installation is straightforward and secure. This makes the COM-VAM01 a robust, precise, and user-friendly dual display meter, ideal for engineers, technicians, and developers who require a dependable measurement solution for DC applications.

TECHNICAL SPECIFICATIONS

Operating voltage	3.5 - 30 V DC
Voltage measuring range	0 - 100 V DC
Voltage resolution	0.1 V
Voltage measuring accuracy	$\pm 1\% + 2$ digits
Current measuring range	0 - 100 A DC
Current resolution	0.1 A
Current measuring accuracy	$\pm 1\% + 2$ digits
Display size	0.28" per digit
Refresh rate	500 ms
Current measuring accuracy	$\pm 1\% + 2$ digits
Operating temperature	-10 to +60°C
Display mode	3-digit segment display / per measured value
Display colour	Red (voltage), green (current)
Cable length	14 cm
Special features	Integrated current calibration potentiometer, external shunt resistor

CABLE ASSIGNMENT

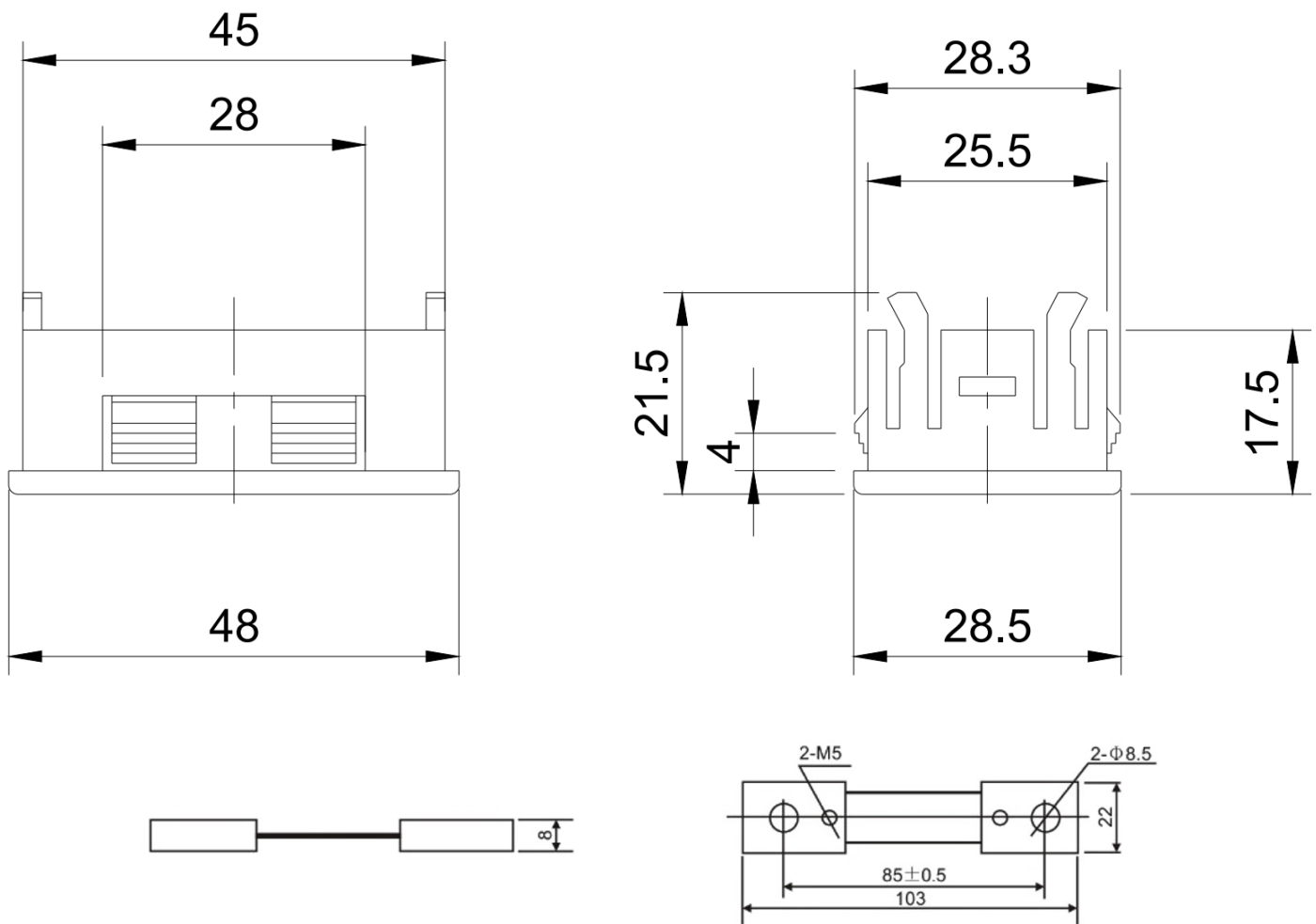
Thick red cable	Input current measurement
Thick black cable	Output current measurement
Thin red cable	Input supply voltage
Thin black cable	Ground supply voltage
Yellow cable	Voltage measurement
	Output current measurement & Ground supply voltage are internally connected

ADDITIONAL INFORMATION

Weight	79 g
Dimensions	48 x 29 x 22 mm 103.5 x 22 x 25 mm (shunt resistor)
Article no.	COM-VAM01
Items shipped	1x Panel mount volt/ammeter, 1x shunt resistor, connection cables
Customs tariff number	90303370
EAN	4250236830933

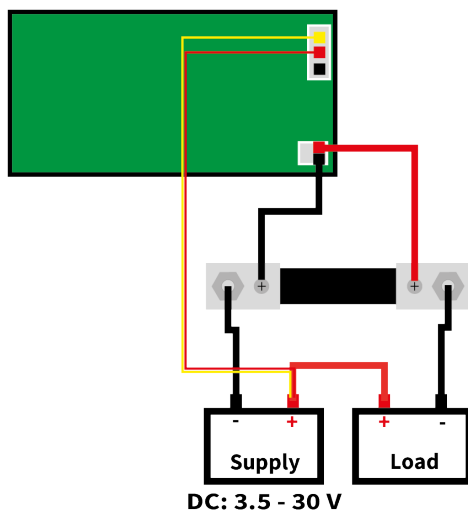


TECHNICAL DRAWING

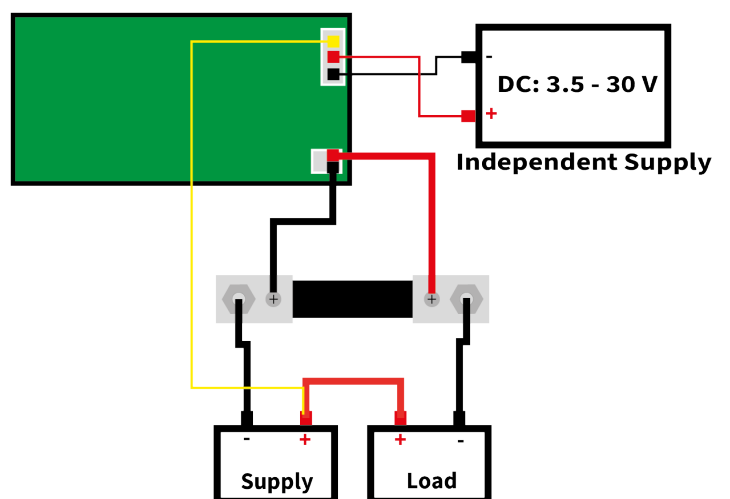


CONNECTION EXAMPLE

Operation via measuring voltage:



Operation with separate power supply:



When operating via the measuring voltage, the thin black cable remains unconnected.