



ESTRA-VM10

*Isolated amplifiers for voltage measurement
Type VM10*



GENERAL INFORMATION

APPLICATION

The VM10 amplifier is suitable for measuring DC voltages in power distribution systems for public transport networks.

The VM10 measuring equipment, with its high voltage isolation, ensures safety for the equipment and for the personnel.

MAIN FEATURES

The housing width is 67.5 mm.

The devices isolate and transmit input voltages in the range of $\pm 0.75 \text{ kV} \dots \pm 3 \text{ kV}$ (with fixed setting).

The individual measurement ranges are calibrated.

The broad-range power supply operates from 24 to 230 V AC/DC.

/// ADJUSTABLE VERSION

The working voltage for basic insulation (overvoltage category III, pollution degree 2) is 2.2 kV / 10 kV dielectric isolation. The 16 measurement ranges are selected using an insulated rotary coding switch and/or by reconnecting the output lines. Preselection is done at factory, according to the substation specifications.

/// FIXED VERSION (3 kV)

The working voltage for basic insulation (overvoltage category III, pollution degree 2) is 3.6 kV / 15 kV dielectric isolation. The configuration is made only in the factory.



MAIN BENEFITS

- ✓ Wide supply voltage range.
- ✓ Low non-linearity error.
- ✓ Very high immunity.
- ✓ High galvanic isolation, up to 15 kV (50 Hz, 1 min).
- ✓ Compact solution.
- ✓ No external protection necessary (fuseless solution).

MAIN CHARACTERISTICS

TECHNICAL DATA

Supply voltage	24 ... 230 V AC/DC -20% / +10%
Input voltage	0.75, 1, 1.5, 2, 3 kV unipolar / bipolar calibrated range selection (with fixed setting)
Output voltage	Us nom \pm 5 V
Output current	Is nom \pm 20 mA or Is 4...20 mA RLmax = 600 ohms
Error on gain and non-linearity	Less than \pm 0.3% < 100 ppm/K full scale
Cut off frequency (-3 dB)	> 5 kHz
Voltage consumption	< 5 VA
Residual ripple	< 10 mVeff
Galvanic isolation EN 50124-1	3-port isolation between input, output and power supply
Operating temperature	-25 to +85 °C
Galvanic isolation, input against output	10 kVAC 50 Hz 1 min (with 16 settings) 15 kVAC 50 Hz 1 min (with fixed setting)
EMC standards	EN 50121-5 (when mounted in a cubicle) EN 61326 class B (standard for isolators)

MECHANICAL DATA

Dimensions (H x W x D)	90 x 67.5 x 118 mm
Weight	500 grams
Sealing	IP40 (housing)
Mounting	DIN rail

TYPE DESIGNATION



- Standard version with setting selection: SG816209P00001.
- Fixed setting version: upon request.
- Version dedicated to voltage limiting device (VLD) application (150 V bipolar, \pm 5 V, fixed setting): SG816210P00011.

For more technical information, please refer to the instruction manual.

SG817910BEN_C02-09.18



Sécheron SA

Rue du Pré-Bouvier 25
1242 Satigny - Geneva
CH-Switzerland

www.secheron.com

Tel: +41 (0)22 739 41 11
Fax: +41 (0)22 739 48 11
substations@secheron.com

This document is not contractual and contains information corresponding to the level of technology at the date of printing. Sécheron reserves the right to modify and/or improve the product, whose characteristics are described in these documents, as required by new technology at any time. It is the purchaser's responsibility to inform himself, no matter what the circumstances, of the product's maintenance conditions and requirements. Sécheron reserves all rights, especially those arising from our "General Delivery Conditions".

Copyright© 2018 Sécheron SA