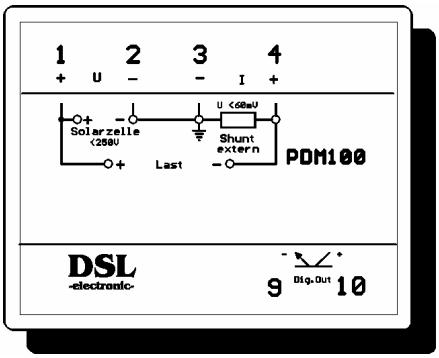
Product Description
Discontinued Product

Tel.: 49 2162 40025
Fax: 49 2162 40035
info@dsl-electronic.de
www.dsl-electronic.de

DSL electronic® GmbH

DC (Active) Power Measuring Transducer PDM100 with S0 - Interface, 21 – 250V



Function

The Measuring Transducer PDM100 registers the active power of a DC voltage supply and sends the value to the output (which has potential separation) in the form of pulses per kWh. The input voltage at the DC load is also used to supply the measuring transducer with an auxiliary voltage. The load current is registered via an external shunt resistor and sent to the measuring transducer as a voltage. Real (analogue) multiplication is carried out with the 2 measuring voltages.

Application

The unit is used to register and monitor the power of a solar cell feeder. The "open collector" output of an optocoupler which provides the pulses for the kW counter is used as an output for the measuring transducer. The measuring transducer has low power consumption and self-heating, especially at the high operating voltage of up to 300V. This gives the measuring transducer a high degree of reliability and a long service life.

Technical Data

Type	DC (Active) Power Measuring Transducer PDM100
Construction	Plastic housing on 35mm hat rail as per DIN EN 50022
Material of housing	Bayblend FR 1439/0240 modified ABS with burning protection UL 94 VO
Dimension, Weight	55x68x110mm (WxHxD), ca. 0.2 kg, alternative delivery with width (housing) of 104mm
Potential separation	None between input voltages, 2500V Inputs – Puls Output
Auxiliary voltage	From measuring voltage
Input measuring voltage	21 – 300V
Derating	No continuous operation between 250 – 300V (short time up to 15 min)
Input measuring current	0 - 60 mV DC with shunt acc. customer specification
Measuring delay	appr. 100 ms
Output signal	Pulse output from opto-coupler (open-coll.), 50V max. 4 – 10mA (On), < 0.1mA (Off), 40ms, Fmax. 12,5Hz
S0-Interface	Acc. to DIN 43 864
Accuracy	Calibration of final value 0.5%, linearity 2%
Power consumption	appr. 25mA at 24VDC falling to 6 mA at 250VDC
Over voltage protection	300V input protection with in series with fuse 0.25AT / 1500
On period	100 %
Connecting terminals	for wire connection up to 2,5 mm²
Type of protection	Housing IP 40 , Terminals IP 20 (VDE 0106T100/VBG4)
Temperature range	-10 °C to +55°C, 95% Humidity
Mains isolating	EN 60 742 (Safety transformers)
General Regulations	EN 50 178 (electrical units in power current installation)
Radio interference	EN 55 022/B
EMV	EN 61000 und EN V 50 140
Installation position	Any position
Maintenance	Free of maintenance

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