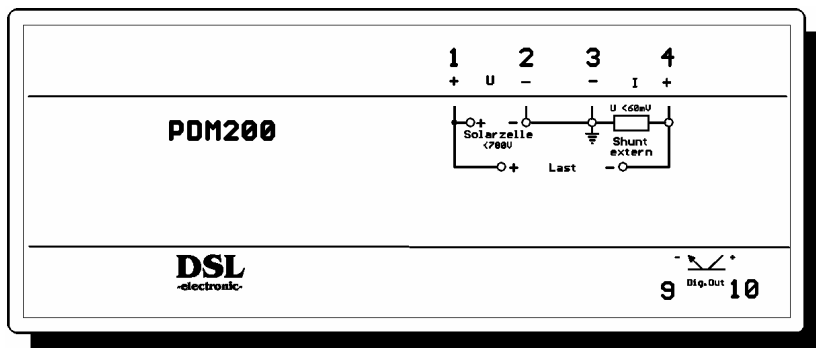


DC (Active) Power Measuring Transducer PDM200 with S0 – Interface, 55 – 700V



Function

The Measuring Transducer PDM200 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 700V. This gives the measuring transducer a high degree of reliability and a long service life.

Technical Data

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| Type | DC (Active) Power Measuring Transducer PDM200 |
| 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 | 104x68x110mm (WxHxD), ca. 0.3 kg |
| Potential separation | None between input voltages, 2500V Inputs – Puls Output |
| Auxiliary voltage | From measuring voltage |
| Input measuring voltage | 55 – 700V |
| Derating | No continuous operation between 650 – 700V (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), <math>< 0.1mA</math> (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 55VDC falling to 6 mA (lowest value) at 300VDC |
| Over voltage protection | 700V input protection with in series with fuse 0.25AT / 1500 |
| On period | 100 % |
| Connecting terminals | for wire connection up to 2,5 mm ² |
| Type of protection | Housing IP 40 , Terminals IP 20 (VDE 0106T100/VBG 4) |
| Temperature range | -10 °C to +35°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 |