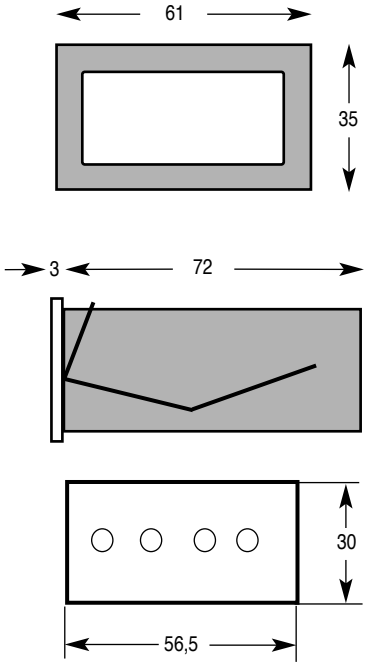
Digital Panel Meter DPM 535

Meas. Display:	3 1/2 Digit
Display:	red LED 12,5 mm
Zero Point:	automatic zero point correction
Polarity:	automatic polarity - sign
Meas. Rate:	2.5 Measurements per sec.
Decimal Point:	selectable setting
Device Housing:	ABS Plastic black
Common Mode:	-0.5... +2V between Voltage supply and measuring voltage
Overload Meas.:	10 times of meas. Voltage range, max 250V
Overload Meas.:	2 times of meas. Current range
Supply Voltage:	5 Volt DC, 70 mA
Common Mode:	CMRR better 80dB
Operating Temp.:	-10°C…+50°C
Protection Index:	IP 50 Front IP 00 Rare acc. DIN 40050
Connector Type:	Lift Clamps
Front Panel:	H x W = 35 x 61 mm
Panel cut-out:	H x W = 30,5 x 57 mm
Mounting Depth:	D = 73 mm

Mechanical Dimensions:



Protection

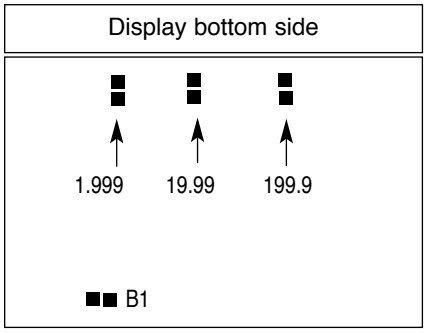
Contact safety device for the Rear Side to protect measurements voltages over 50 Volt AC/DC

Settings and Connections

The measuring range and the supply voltage are indicated on the device label. The evices are twice factory tested and calibrated. The decimal point is factory set to the range specified on the label. In case of changes proceed according to the sketch. For mea-surement adaptations the scale factor can be varied through Pot. P1 by about +/- 10% from the end of range. This is valid only for models DPM 535/ .. VDC/VAC/ADC/AAC not for converter models with Analog output.

Setting the Decimal Point

The decimal point is set through a soldering jumper on the bottom side of the PCB.



Important installation hints

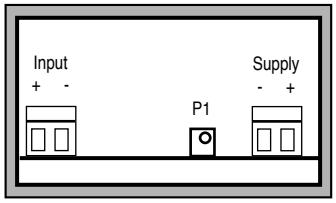
The measuring input and the supply are not galvanic separated. The maximum permitted voltage difference between In Low and supply minus is –0.5V ... +2V. If the voltage difference exceeds the permitted value the device must be supplied through a separate power supply in order to create the galvanic separation. Operation of multiple devices from one power supply is possible under the condition that all In-Low potentials are connectable to supply minus and are connected. In case of current measurements the shunt must be connected into the minus line circuit.

DC-Voltage Type 535-001 ... 535-006

Meas. instrument with full +/- range from -1999 to +1999 digits. Accuracy class 0.1% +/- 1 digit from measuring value. Measuring input and supply connections see sketch.

DC-Current Type 535-020 ... 535-025

Meas. instrument with full +/- range from -1999 to +1999 digits. Accuracy class 0.2% +/- 1 digit from measuring value. Internal voltage drop max. 200mV. For current mea-surements a 200mV range shunt is used with the decimal point set accordingly. Example: Shunt 20A/200mV. The decimal point will be set to 19.99. Measuring input and supply connections see sketch.

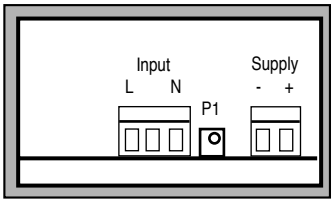


AC-Voltage Type 535-011 ... 535-016

Meas. instrument with integrated rectifier for 'True RMS' measurements. Meas. display is in 'U rms' calibrated. Frequency range DC to 100Hz. Accuracy class 0.2% +/- 1 digit from measuring value. Measuring input and supply connections see sketch.

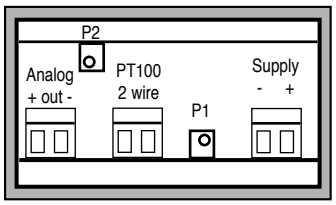
AC-Current Type 535-030 ... 535-035

Meas. instrument with integrated rectifier for 'True RMS' measurements. Meas. display is in 'I rms' calibrated. Frequency range DC to 100Hz. Accuracy class 0.5% +/- 4 digit from measuring value. For current measurements a 200mV range shunt is used with the decimal point set accordingly. Example: Shunt 20A/200mV. The decimal point will be set to 19.99. Measuring input and supply connections see sketch.



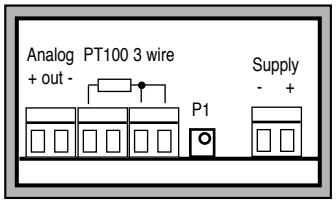
PT100 Temperature 2-wire Type 535-050 / -051

Range of type 535/PT100/B1: -100°C ... 199.9°C, resolution 0.1 Kelvin. Range of type 535/PT100/B2: -100°C ... 750°C, resolution 1 Kelvin. These models are cali-brated for a 10 Ohm line resistance. Line resistance less than 10 Ohm can be com-pensated through Pot. P2. Accuracy class: +/-0.1% +/-1 digit of the meas. value. Measuring input and supply connections see sketch.



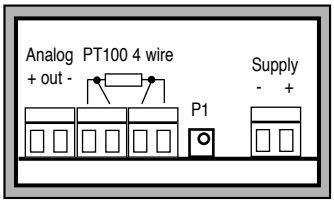
PT100 Temperature 3-wire Type 535-052 / -053

Range of type 535/PT100/B1: -150°C ... 199.9°C, resolution 0.1 Kelvin. Range of type 535/PT100/B2: -150°C...750°C, resolution 1 Kelvin. With these models the line resistance is compensated automatically. Inclusive Analog output with 1mV/°C. Measuring current PT 100 maximum 1.5mA. Accuracy class: +/-0.1% +/-1 digit of the meas. value. Measuring input and supply connections see sketch.



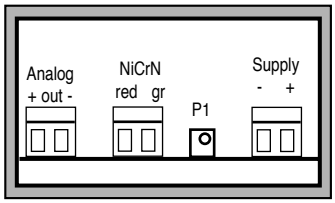
PT100 Temperature 4-wire Type 535-054 / -055

Range of type 535/PT100/B1: -100°C ... 199.9°C, resolution 0.1 Kelvin. Range of type 535/PT100/B2: -100°C...750°C, resolution 1 Kelvin. With these models a line resistance of up to 10 Ohm is compensated automatically. Inclusive Analog output with 1mV/°C. Measuring current PT 100 maximum 1.5mA. Accuracy class: +/-0.1% +/- 1 digit of the meas. value. Measuring input and supply connections see sketch.



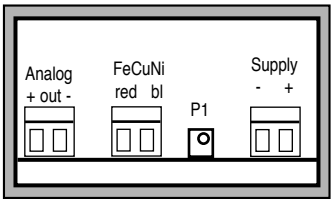
NiCrNi Temperature Type 535-060 / -061

Range of type 535/NiCrNi/B1 : 0°C ... 199.9°C, resolution 0.1 Kelvin. Range of type 535/NiCrNi/B2 : 0°C ... 1300°C, resolution 1 Kelvin. This models are calibra-ted with a sensor comprising DIN 43710 standard. Inclusive Analog output with 1mV/°C. Accuracy class B1: +/-1% +/-4 digits from meas. value. Accuracy class B2: +/-2% +/-4 digits from meas. value. Measuring input and supply connections see sketch.



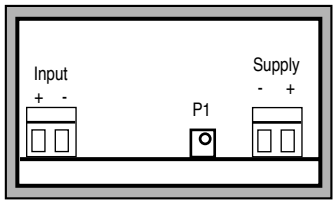
FeCuNi Temperature Type 535-070

Range of type 535/NiCrNi/B2 : -50°C ... 600°C, resolution 1 Kelvin. This model is calibrated with an internal temperature compensated sensor comprising DIN 43710 standard. Converter model inclusive Analog output with 1mV/°C for chart recorder applications. Accuracy class: +/-1.5% +/-4 digits from meas. value. Measuring input and supply connections see sketch.



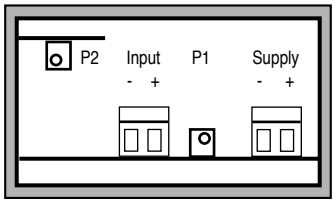
Special Measuring Ranges Type 535-008 and 535-027

These models provide for standard voltage- and current-signals displays for different values. The display ranges are set at factory site according to customer order and are indicated on the device label. Type 535-008/0-10V provides a display range from 0 to customer value. Type 535-027/0-20mA provides a display range from 0 to customer value. Accuracy class 0.1% +/- 1 digit from meas. value. Measuring input and supply connections see sketch.



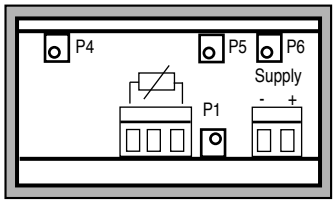
Special Measuring Ranges Type 535-009 and 535-028 / -029

These models provide for standard voltage- and current-signals displays for different values. The display ranges are set at factory site according to customer order and are indicated on the device label. Type 535-009/ 0-10V provides a display range from + to - customer value. Type 535-028/0-20mA provides a display range from + to - custo-mer value. Type 535-029/4-20mA provides a display range from + to - customer value. Accuracy class 0.1% +/- 1 digit from meas. value. With Pot. P1 the end point and with Pot. P2 the zero point can be scaled.



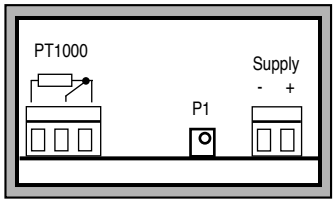
Way Measurement with Resistor Potentiometer 5kOhm – 10kOhm Type 535-090

At the rare of the device three potentiometer are accessible to the user. Wiith Pot. P4 the sensitivity of the range (scale factor), with Pot. P5 the zero point of the begin of way (negativ begin of way) and with Pot. P6 the upper end of way (positive end of way) can be adjusted. Accuracy class: +/-0.1% +/-1 digit from meas. value.



PT1000 Temperature 3-wire Type 535-050

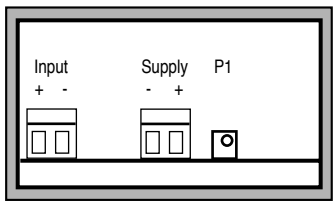
Range from -50.0°C to 150.0°C, resolution 0.1 Kelvin. Calibration according PT1000 characteristic DIN 43760. Line resistance is compensated automatically. Accuracy class: +/-0.1% +/-1 digit of the meas. value.



Option: DC/DC-Converter

With this option a galvanic separation between supply voltage and measuring voltage is established.

Converter	Input voltage range
12V/5V	9 - 18V DC
24V/5V	18 - 36V DC



Safety Precautions

Employing these instruments, regulations for working with high voltage equipment, as well as any Professional Trade Association regulation for working with electrical appliances and installations have to be observed.

CE-Guidelines

Meets the EMV Guideline (89/336/EWG) and the German EMV ruling by applying the Basic Standard EN 50081/ EN 50082. Meets the Low Voltage Guideline (73/23/EWG) by applying Product Standard EN 61010.

Guarantee Regulations

Regulations by law apply for guarantee within 6 month. All equipment is factory tested and calibrated. Excluded from the guarantee are normal wear and tear, defects due to misuse, negligence, chemical exposure, mechanical stress as well as equipment, which has been modified, re-labeled or otherwise altered or if attempts to repair have been made. All guarantee claims are subject to our scrutiny and approval.

Service

We are glad that you decided on an instrument from our product range. If there are what so ever any defects, please send the instrument (postage paid) to your distributor. For technical information contact us via E Mail: **info @ schwille.de**
Technical changes reserved.