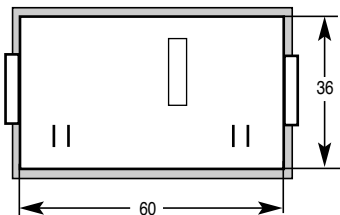
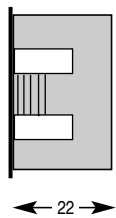
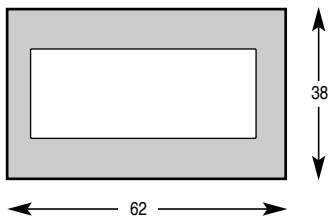


Digital Panel Meter DPM 338

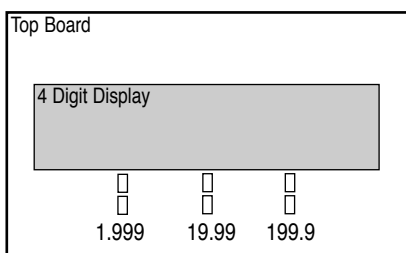
Meas. Display: 3 1/2 Digit
 Display: LCD 13 mm
 Zero Point: automatic zero point correction
 Polarity: automatic polarity - sign
 Meas. Rate: 2.5 Measurements per sec.
 Decimal Point: selectable setting
 Device Housing: ABS Plastic
 Common Mode: -0.5... +2V between Voltage supply and measuring voltage
 Overload Meas.: 10 times of meas. Voltage range, max 250V
 Overload Meas.: 2 times of meas. Current range
 Supply Voltage: 5 Volt DC, 5 mA
 Common Mode: CMRR better 80dB Rejection
 Operating Temp.: -10°C...+50°C
 Protection Index: IP 50 Front
 IP 00 Rare acc. DIN 40050
 Connector Type: soldering pins
 Front Panel: H x W = 62 x 38 mm
 Panel cut-out: H x W = 60,8 x 36,5 mm
 Mounting Depth: D = 22 mm

Mechanical Dimensions:



Setting the Decimal Point

The decimal point is set through a soldering jumper at the front board.



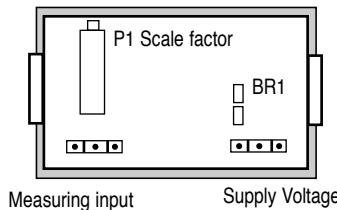
Settings and Connections

The measuring range and the supply voltage are indicated on the device label. The devices 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 measurement adaptations the scale factor can be varied through Pot. P1 by about +/- 10% from the end of range.

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 there are two different solutions:

1. The measuring input and the supply ground can be connected through jumper BR1.
2. If this is not sufficient 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.

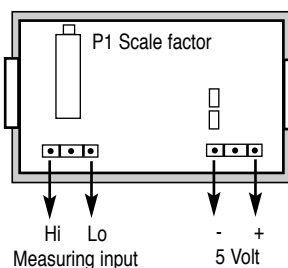


DC-Voltage DPM 338 - 001 ... 335 - 005

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 DPM 338 - 020 ... 335 - 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 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 DPM 338-050 / -051

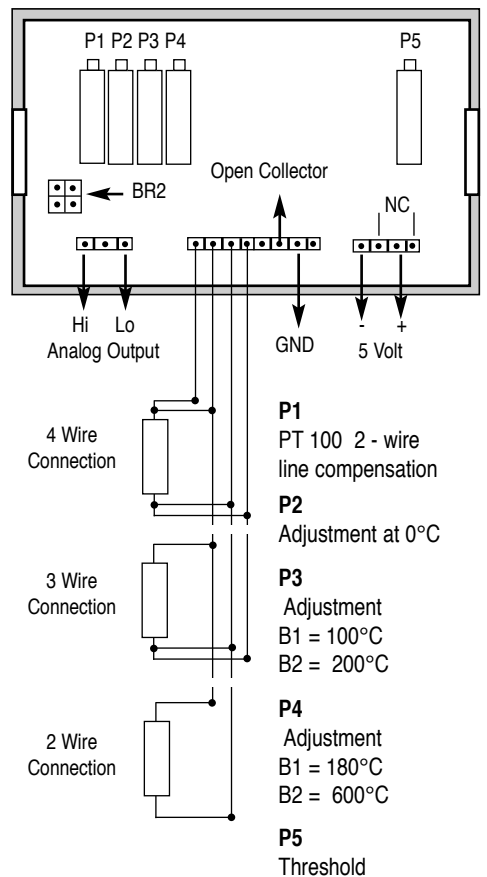
Range B1: -100°C ... 199.9°C, resolution 0.1 Kelvin.
 Range B2: -100°C ... 750°C, resolution 1 Kelvin.
 These models are calibrated for a 10Ohm line resistance. Line resistance less than 10 Ohm can be compensated through a potentiometer. The potentiometer for the zero-point adjustment and the potentiometer for the end temperature is adjusted at factory side and should not be readjusted. Accuracy class: +/-0.1% +/-1 digit of the meas. value.
 Analog output: 1mV/°C. Measuring input see sketch.

PT100 Temperature 3-wire DPM 338-052 / -053

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

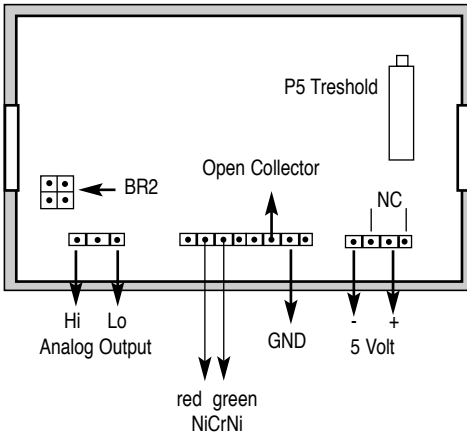
PT100 Temperature 4-wire DPM 338-054 / -055

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



NiCrNi Temperature Type 338-060

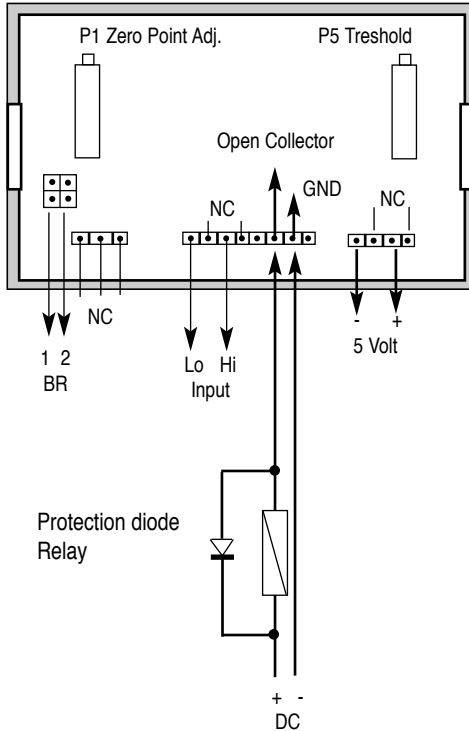
Range 0°C ... 1300°C, resolution 1 Kelvin. This model is calibrated with a sensor comprising DIN 43710 standard. Analog output 1mV/°C. Accuracy : 2% +/- 4 digits from meas. value. Measuring input see sketch.



Comparator Type 338-100

With the comparator a threshold value can be evaluated. The threshold value is adjusted through Pot. Pref. By reaching the threshold value the open-collector output is activated.

If jumper BR2 is closed the measured value is displayed. On open jumper BR2 and jumper BR1 closed the threshold value is displayed and can be adjusted with Pot. Pref from - 1999 to +1999.



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

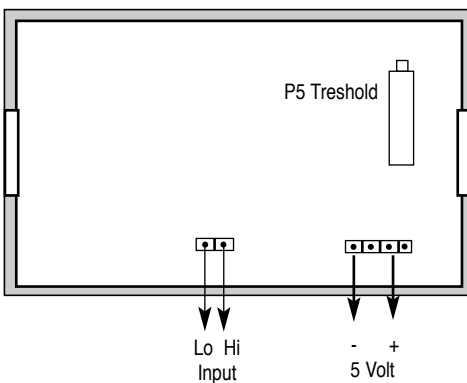
Regulations by law apply for guarantee within 6 month. All equipment is factory tested and calibrated. Excluded from the guarantee are normal wear and tear, defects due to misuse, negligence, chemical exposure, mechanical stress as well as equipment, which has been modified, re-labeled or otherwise altered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

**Special Measuring Ranges
Type 338-009 and 338-027**

The models 335-009 and 335-027 provide for standard voltage- and current-signals displays for different values. Ranges are set at factory site according to customer order and are indicated on the device label. Type 335-009/0-10V provides a display value from + to - customer value. Type 335-027/0-20mA provides a display value from - to + customer value. Accuracy class 0.1% +/- 1 digit from meas. value. Measuring see sketch.



Open-Collector Output

Maximum Ratings:

Power Dissipation @ TA 25°C	300mW
Collector-Emitter Voltage	30V DC
Collector Current	100mA

Appropriate protection measures against overload must be applied if load is connected to the open-collector output. Examples are protection diodes or VDR-resistors. Guarantee is excluded if the transistor is destroyed through overload.