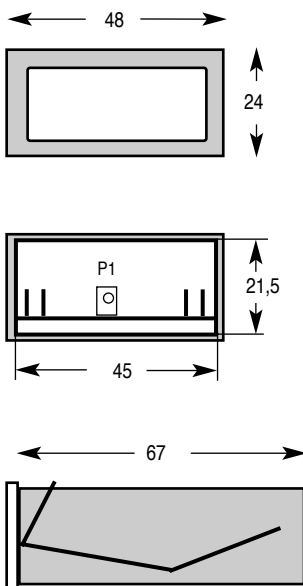
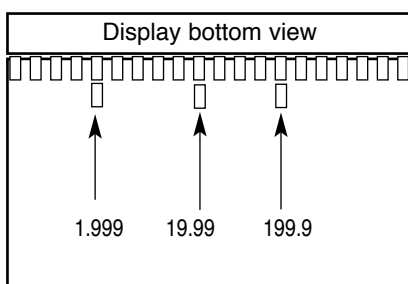


**Digital Panel Meter DPM 224**

Meas. Display:	3 1/2 Digit
Display:	red LED 10 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:	24 Volt DC,
Wide range:	18 - 35 Volt DC
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 or clamps
Front Panel:	H x W = 24 x 48 mm
Panel cut-out:	H x W = 22 x 45,5 mm
Mounting Depth:	D = 67 mm

**Mechanical Dimensions:****Setting the Decimal Point**

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

**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 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. In case of current measurements the shunt must be connected into the minus line circuit.

**DC-Voltage Type 224-001 ... 224-005**

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 Type 224-020 ... 224-025**

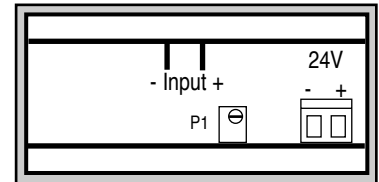
Meas. instrument with full +/- range from -1999 to +1999 digits. Accuracy class 0.2% +/- 1 digit from measuring value. Internal voltage drop max. 200mV. For current measurements a 200mV range shunt is used with the decimal point set accordingly. Example: Shunt 20A / 200mV. The decimal point will be set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

**Special Measuring Ranges  
Type 224 - 008 and 224 - 027**

These models provide for standard voltage- and current-signals displays for different values. The ranges are set at factory site according to customer order and are indicated on the device label. Type 224-008/0-10V provides a display value from 0 to customer value. Type 224-027/0-20mA provides a display value 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 224 - 009, 224 -028, 224 - 029**

These models provide for standard current-signals displays for different values. The ranges are set at factory site according to customer order and are indicated on the device label. Type 224-029/4-20mA provides a display range from + to - customer value. Accuracy class 0.1% +/- 1 digit from meas. value. Measuring input and supply connections see sketch.

**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](mailto:info@schwille.de)

Technical changes reserved.

