

Fitted Digital Meters M1 (48 x 24)

Front frame
48 x 24 mm



Technical data:

| | |
|---------------------|---|
| Measurement device | 4 digits, max. 9999 |
| Display | LED red, 10 mm (optionally green, blue or orange); freely programmable |
| Inputs | galvanically isolated from the supply |
| Accuracy | 0.2 % of full range, ± 1 digit |
| Power supply | 24 V DC $\pm 10\%$, max. 1 VA |
| Decimal point | programmable |
| Measurement time | 0.1 10 seconds |
| Protection category | IP65 at the front |

Direct currents:

| ranges | Ri |
|-----------|----------------------|
| 0 - 20 mA | approx. 100 Ω |
| 4 - 20 mA | approx. 100 Ω |

ranges: 20, 100, 200 A
with external shunts (accessory)

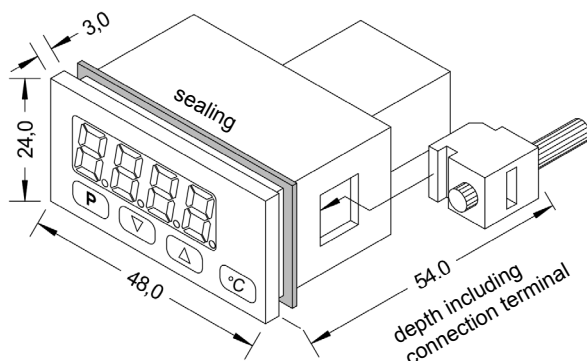
Direct voltages:

| ranges | Ri |
|------------|------------------------|
| 60 mV | approx. 12 k Ω |
| 150 mV | approx. 30 k Ω |
| ± 10 V | approx. 200 k Ω |

indication, deviating from the input
signal on demand

Further measurement inputs on demand:
resistance, PT100, PT1000 and thermocouples

Mechanical dimensions: cut out dimensions: 45.0^{+0.8} x 22.0^{+0.6} mm



Fitted Digital Meters M1 (96 x 24)

Front frame
96 x 24 mm



Technical data:

| | |
|---------------------|--|
| Measurement device | 4 digits, max. 9999 |
| Display | LED red, 14 mm (optionally green, blue or orange) |
| Inputs | galvanically isolated from the supply |
| Accuracy | 0.2 % of full range, ± 1 digit |
| Power supply | 24 V DC $\pm 10\%$, max. 1 VA or 230 V AC $\pm 10\%$ / 6 VA |
| Decimal point | programmable |
| Measurement time | 0.1 10 seconds |
| Protection category | IP65 at the front |

Direct currents:

| ranges | Ri |
|-----------|----------------------|
| 0 - 20 mA | approx. 100 Ω |
| 4 - 20 mA | approx. 100 Ω |

Direct voltages:

| range | Ri |
|------------|------------------------|
| ± 10 V | approx. 200 k Ω |

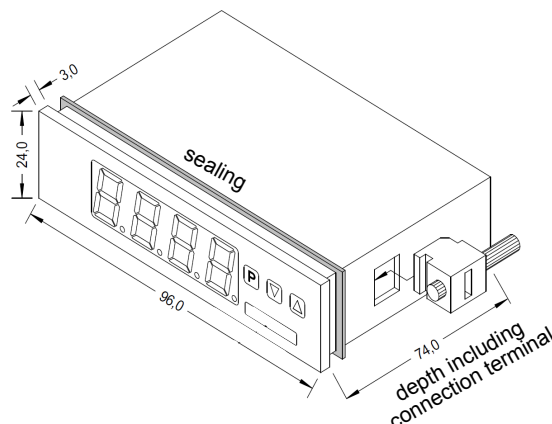
Direct voltage, for shunt connection

| ranges | Ri |
|--------|-----------------------|
| 60 mV | approx. 12 k Ω |
| 150 mV | approx. 30 k Ω |

Further measurement inputs on demand:
resistance, PT100, PT1000 and thermocouples

DIGITAL INSTRUMENTS

Mechanical dimensions: cut out dimensions: $92.0^{+0.8} \times 22.2^{+0.3}$ mm



Fitted Digital Meters M3 (96 x 24)

Front frame
96 x 24 mm



Technical data:

| | |
|---------------------|--|
| Measurement device | 5 digits, max. 99999 |
| Display | LED red, 14 mm (optionally green, blue, orange or tricolour) |
| Inputs | galvanically isolated from the supply |
| Accuracy | 0.5 % of full range |
| Power supply | 10 - 30 V DC, max. 4 VA or 100 - 240 V AC/DC $\pm 10\%$, max. 10 VA |
| Decimal point | programmable |
| Measurement time | 0.1 10 seconds |
| Protection category | IP65 at the front |

Alternating currents sinusoidal

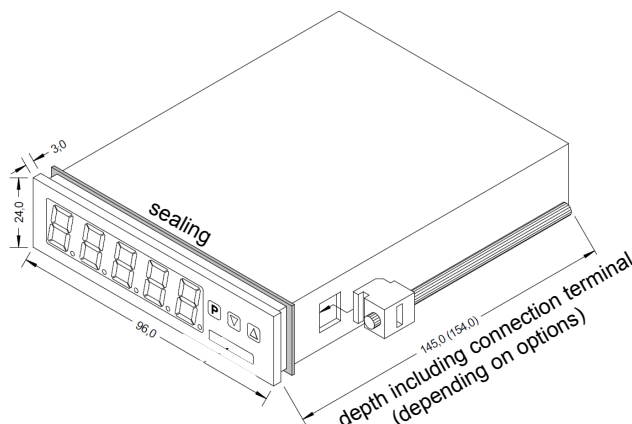
| ranges | Ri |
|--------|-----------------------|
| 1 A | approx. 0.2 Ω |
| 5 A | approx. 0.05 Ω |

Direct voltage, sinusoidal

| ranges | Ri |
|--------|------------------------|
| 10 V | approx. 40 k Ω |
| 50 V | approx. 200 k Ω |
| 600 V | approx. 2 M Ω |

Further measurement inputs on demand:
resistance, PT100, PT1000 and thermocouples

Mechanical dimensions: cut out dimensions: 92.0^{+0.8} x 22.2^{+0.3} mm



Fitted Digital Meters M2 (96 x 48)

Front frame
96 x 48 mm



Technical data:

| | |
|---------------------|--|
| Measurement device | 5 digits, max. 99999 |
| Display | LED red, 14 mm (optionally green, blue, orange or tricolour) |
| Inputs | galvanically isolated from the supply |
| Accuracy | 0.5 % of full range |
| Power supply | 10 - 30 V DC, max. 4 VA or 230 V AC $\pm 10\%$, max. 10 VA |
| Decimal point | programmable |
| Measurement time | 0.1 10 seconds |
| Protection category | IP65 at the front |

Direct current:

| ranges | Ri |
|-----------|----------------------|
| 0 - 20 mA | approx. 100 Ω |
| 4 - 20 mA | approx. 100 Ω |
| 0 - 1 A | approx. 0.2 Ω |

Direct voltage:

| ranges | Ri |
|-------------|------------------------|
| ± 10 V | approx. 200 k Ω |
| ± 50 V | approx. 200 k Ω |
| ± 300 V | approx. 1 M Ω |
| ± 600 V | approx. 2 M Ω |

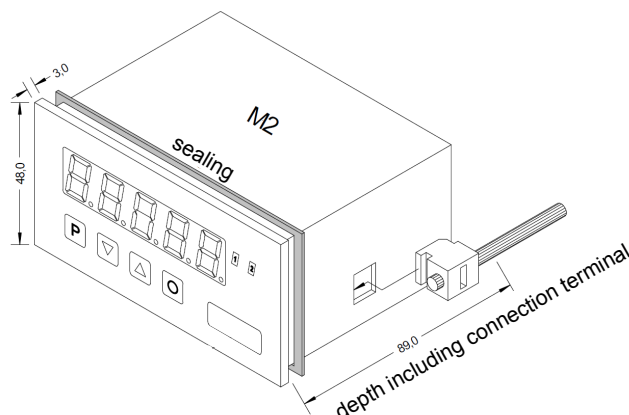
Direct voltage, for shunt connection:

| ranges | Ri |
|--------|-----------------------|
| 60 mV | approx. 12 k Ω |
| 150 mV | approx. 60 k Ω |
| 300 mV | approx. 30 k Ω |

Further measurement inputs on demand:
resistance, PT100, PT1000 and thermocouples

DIGITAL INSTRUMENTS

Mechanical dimensions: cut out dimensions: 92.0^{+0.8} x 45.0^{+0.6} mm



Fitted Digital Meters M3 (96 x 48)

Front frame
96 x 48 mm

Technical data:

| | |
|---------------------|--|
| Measurement device | 5 digits, max. 99999 |
| Display | LED red, 14 mm (optionally green, blue, orange or tricolour) |
| Inputs | galvanically isolated from the supply |
| Accuracy | 0.5 % of full range |
| Power supply | 10 - 30 V DC, max. 8 VA or 230 V AC $\pm 10\%$, max. 20 VA |
| Decimal point | programmable |
| Measurement time | 0.1 10 seconds |
| Protection category | IP65 at the front |



Alternating currents sinusoidal

| ranges | Ri |
|--------|-----------------------|
| 1 A | approx. 0.2 Ω |
| 5 A | approx. 0.05 Ω |

Alternating voltages sinusoidal

| ranges | Ri |
|--------|------------------------|
| 10 V | approx. 40 k Ω |
| 50 V | approx. 200 k Ω |
| 300 V | approx. 1 M Ω |
| 600 V | approx. 2 M Ω |

Further measurement inputs on demand:
resistance, PT100, PT1000 and thermocouples

Mechanical dimensions:

cut out dimensions: 92.0^{+0.8} x 45.0^{+0.6} mm

