



Technical Data Sheet

Beta 90A / 90B



Beta 90A/90B is the digital panel meter designed for industrial applications, which frequently require precise, onsite adjustment of the display range.

Special Features

- Available in size 48 x 24 mm
- Compact digital display units in a 48 mm x 24 mm DIN standard snap-in housing.
- The low power consumption and small overall size of these DPMs suits high-density panel applications.

Application

Beta 90A The digital panel meter has been designed for industrial applications, which frequently require precise, onsite adjustment of the display range. It can be used in industrial automation and for laboratory uses. It provides cost-effective solution for virtually all switchboard instruments.

Description

The **90B** 24 x 48 is a digital panel meter for connection of measurement for voltage (0 ... 0.2 V, 0 ... 2 V or 0 ... 20 V) with 3 ranges.

The **90A** 24 x 48 is a digital panel meter for connection of measurement for voltage (10 V) and current (1mA, 20 mA or 4 ... 20 mA) with 4 ranges.

The setting of measuring range and display range is made by positioning DIP switches. The chosen input range is user adjustable from 10 % to 100 % of the full scale value by potentiometer on the rear of the meter.

Technical Specifications

| Display | |
|-----------------------------|--------------------------------------|
| Display range | 1999 |
| Decimal point position | programmable, settable by DIP switch |
| Negative display indication | "-" |
| Digit height | 8 mm / 7-segment digits |
| Overload indication | Last 3 digits blank |
| Setting time | < 1s (0...99%) |

| Measuring ranges | | |
|----------------------------------|----------------------------|-------------|
| | Version D | Version F |
| Direct voltage | 0 ... 10 V | 0 ... 0.2 V |
| (Input current < 100 mA) | | 0 ... 2 V |
| | | 0 ... 20 V |
| Direct current | 0 ... 1 mA | |
| (Voltage drop < 200 mV) | 0 ... 20 mA 4 ... 20 mA | |
| Measuring accuracy | < 0.2 % + 1 digit | |
| 0 Temperature coefficient | 100 ppm/ °C, plus | |
| 0 Zero point drift | 200 ppm/ °C | |
| Interference voltage suppression | > 40 dB | |
| Range adjustment span | from 10% to 100% of range | |

| Ambient conditions | |
|-----------------------|-------------|
| Operating temperature | 0 to 50°C |
| Storage temperature | -40 to 80°C |

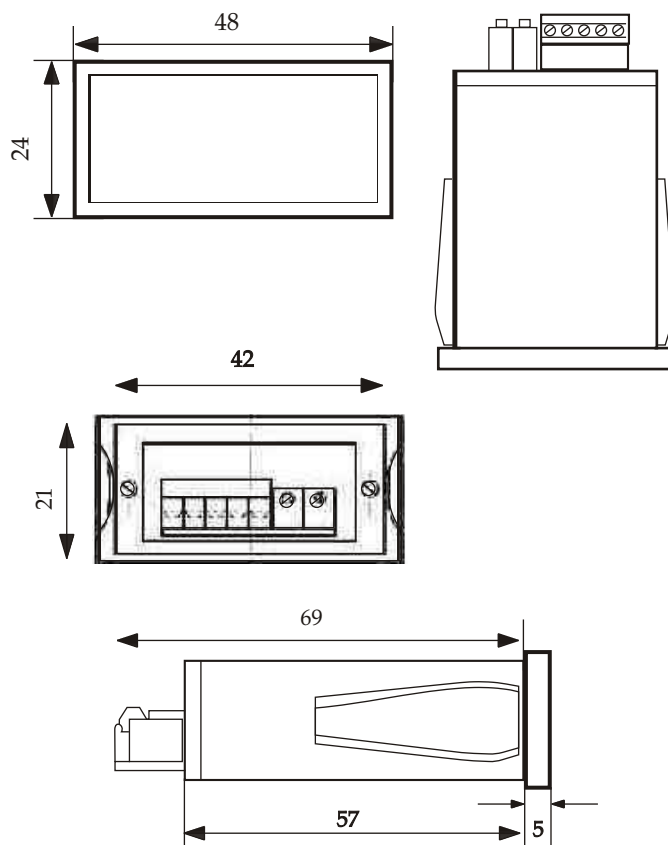
| Dimensions & Weights | |
|----------------------|---------------------------|
| Bezel size | 48 mm x 24 mm DIN 43 718 |
| Panel cut-out | 45 +0.6 mm x 22.2 + 0.3mm |
| Overall depth | 69 mm |
| Weight | < 50 g. |

| Power supply | |
|--------------|-------------------------------|
| 24 V DC | 21 ... 30 V DC, 50 mA approx. |

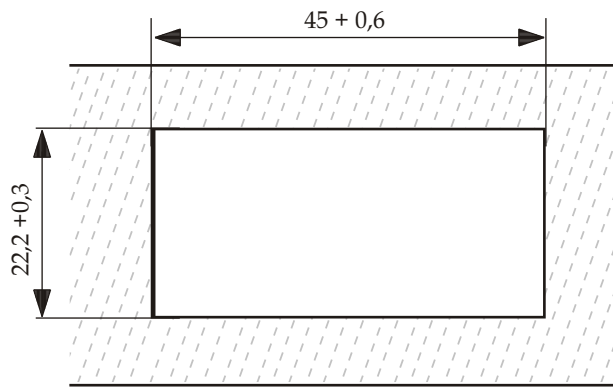
| Sundry | |
|-------------|------------------------------|
| Connections | plug-in screw terminal block |

| Applicable Regulations and Standards | |
|--------------------------------------|--------------------------|
| Protection class | IP 20 to IEC EN 60 529 |
| front | IP 54 (IP 54 on request) |
| Climatic class | Class 2 VDE/DIN 3540 |
| Safety class | II to IEC 348 / VDE 0411 |
| Device safety | to IEC EN 61 010 |
| EMC immunity | DIN EN 61 000-4-1 to 4 |
| EMC radiated interference | DIN EN 50 081 class B |

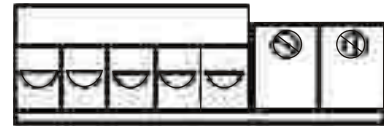
Design and installation



Panel cut-out



Connections



Power
supply

Measuring
input

Ordering Information

| | | | | | | | | | | |
|--------------|----------------|--------------------|---|---|----|---|---|---|------|--|
| Product Code | BT90- | X | X | X | XX | X | X | X | 0000 | |
| Size | 24X48 | A | | | | | | | | |
| | 24X96 | C | | | | | | | | |
| | 96X96 | G | | | | | | | | |
| | | | | | | | | | | |
| Display Size | Not Applicable | | 0 | | | | | | | |
| | 14mm | | 1 | | | | | | | |
| | 20mm | | 2 | | | | | | | |
| | | | | | | | | | | |
| Meter Type | MODEL D | | | 1 | | | | | | |
| | MODEL F | | | 2 | | | | | | |
| | MODEL S | | | 3 | | | | | | |
| | MODEL VDC C | | | 4 | | | | | | |
| | MODEL VDC F | | | 5 | | | | | | |
| | MODEL ADC B | | | 6 | | | | | | |
| Input Range | 0-1mA | | | | 05 | | | | | |
| | 0-20mA | | | | 02 | | | | | |
| | 4-20mA | | | | 04 | | | | | |
| | 0-200mA | | | | 03 | | | | | |
| | 0-60mV | | | | 0A | | | | | |
| | 0-75mV | | | | 0B | | | | | |
| | 0-150mV | | | | 0C | | | | | |
| | 0-200mV | | | | 0D | | | | | |
| | 0-2V | | | | 1A | | | | | |
| | 0-5V | | | | 1G | | | | | |
| | 0-10V | | | | 1B | | | | | |
| | 0-12V | | | | 1F | | | | | |
| | 0-20V | | | | 1C | | | | | |
| | 0-25V | | | | 1H | | | | | |
| | 0-100V | | | | 1I | | | | | |
| | 0-200V | | | | 1D | | | | | |
| | 0-300V | | | | 1K | | | | | |
| | 0-500V | | | | 1E | | | | | |
| | 0-1000V | | | | 1L | | | | | |
| | +/-10mA | | | | 07 | | | | | |
| Power Supply | 5D | | | | | J | | | | |
| | 12D | | | | | 8 | | | | |
| | 24D | | | | | 9 | | | | |
| | 48D | | | | | A | | | | |
| | 110D | | | | | B | | | | |
| | 110A | | | | | 2 | | | | |
| | 230A | | | | | 6 | | | | |
| | 240A | | | | | 7 | | | | |
| | 45-300U | | | | | G | | | | |
| | 220D | | | | | E | | | | |
| | 120D | | | | | K | | | | |
| | 125D | | | | | C | | | | |
| | IP Protection | W/O IP Protection | | | | | | | 0 | |
| | | With IP Protection | | | | | | | 1 | |
| Display | NORMAL DISPLAY | | | | | | | | 0 | |
| | -/+ DISPLAY | | | | | | | | 1 | |
| | Hz DISPLAY | | | | | | | | 2 | |



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PRECISION INSTRUMENTATION

Sifam Tinsley Instrumentation Inc.
3105, Creekside Village Drive,
Suite No. 801, Kennesaw,
Georgia 30144 (USA)
E-mail Id : psk@sifamtinsley.com
Web : www.sifamtinsley.com
Contact No. : +1 404 736 4903

Sifam Tinsley Instrumentation Ltd.
Central Buildings, Woodland Close,
Old Woods Trading Estate,
Torquay, Devon, England, TQ27BB
Web: www.sifamtinsley.com/uk
Contact No. : +44 (0) 1803 615139