

DIGEM B 96 x 24

Digital Panel Meter

3-349-035-03
2/12.99

- Front panel dimensions: 96 x 24 mm
- Display range: -1999 to 9999
- Can be adapted to various measuring tasks with measuring modules
- Two standard versions:
Programmable (extremely easy to configure)
Non-programmable (with permanently set measuring and display ranges)
- Power supply electrically isolated from measuring circuit
- Quick mounting with fastening tabs



Programmable



Non-Programmable

Applications

The DIGEM B 96 x 24 modular digital display is a high precision panel meter. It can be used for the following measuring tasks with the help of various measuring modules:

- Direct current from 0 to 20 mA and from 4 to 20 mA
- Direct current from 4 to 20 mA with power supply for 2-wire measuring transducer
- Temperature measurement with Pt100
- Direct voltage from ± 60 mV to ± 200 V
- Direct current from ± 2 mA to ± 200 mA
- Alternating voltage from 0.2 V to 700 V
- Alternating current from 2 mA to 200 mA

The display range and the decimal point can be easily adapted to the required measuring task with the programmable version.

The desired ranges are preset at the factory for the non-programmable version for applications which allow for permanent display ranges settings.

Subsequent on-site range adjustments are no longer possible with the non-programmable version.

Description

The DIGEM B 96 x 24 is equipped with a precision DC voltmeter which is adapted to the required measuring task by means of an upstream measuring module. Measured values are processed with a microcomputer downstream from the voltmeter, and are read out to a 7segment display.

Depending upon the measuring task, the upper and lower display range limits can be adjusted with the keys at the front panel of the programmable version. These parameter settings can be protected from unauthorized changes with the lock contact at the instrument's rear panel.

Parameters are entered to the measuring instrument at the factory for the non-programmable version. Subsequent changes are only possible at the factory with this version.

Supply power is electrically isolated from the measuring circuit and the instrument is available for either 230 V / 110 V AC / DC or 24 V AC / DC.

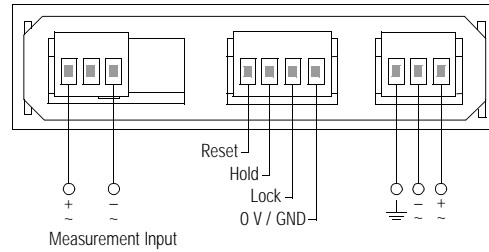
Each instrument is equipped with a control input for storage of the display value to memory, with which the current display value can be frozen. The measuring sequence is not affected by this function.

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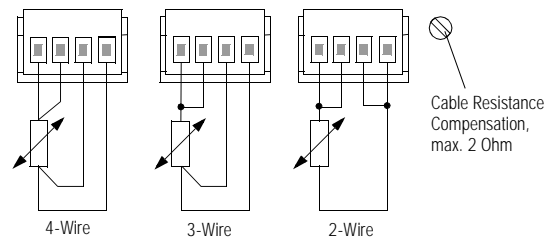
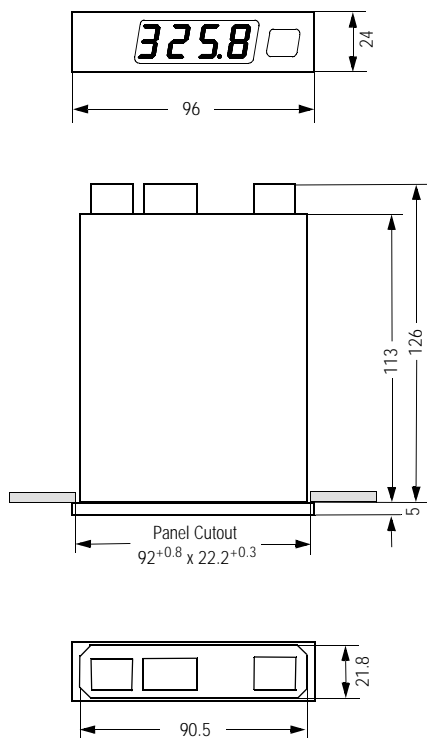
Applicable Regulations and Standards

EN / IEC 61010-1	Safety requirements for electrical equipment for measurement, control and laboratory use.
EN 50081-2	EMC, interference emission
EN 50082-2	EMC, interference immunity
DIN 40040	Utilization category and reliability data for telecommunications and electronic components

Terminal Assignments



Dimensional Drawing



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Characteristic Values

Display

Type	7 segment LED
Display Color	red
Character Height	approx. 13.2 mm
Display Range	- 1999 9999
Polarity	"-" is displayed automatically
Decimal Point	programmable

Input

One Measuring Range dependent upon which measuring module is used	possible measuring ranges are listed under "Order Information"
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Error Limits for Basic Instrument

w/o Meas. Module	± (0.1% of reading + 1 digit)
Direct Current and Direct Voltage	± (0.1% of reading + 2 digits)
SMRR	> 35 dB at 50 Hz
CMRR	> 120 dB at 50 Hz for 200.00 mV measuring range

Alternating Current and Alternating Voltage

for 45 ... 65 Hz	± (0.2% of reading + 3 digits)
for 30 Hz ... 1 kHz	± (0.3% of reading + 5 digits)
TC Value	± (0.01% + 0.01 mV) / K

Alternating Current and Alternating Voltage, TRMS

for 45 ... 65 Hz	± (0.2% of reading + 3 digits)
for 20 Hz ... 1 kHz	± (0.5% of reading + 5 digits)
Crest Factor	6 (additional 0.5% of reading)

Temperature

Pt 100	± (0.3 % + 2 digits)
TC Value	< 150 ppm / K
Offset Drift	< 0.1 digit / K

Control Commands

Store Display Value	externally controlled
Disable Programming	externally controlled with programmable version

Auxiliary Power Supply

Depending upon Version	230 / 115 V 50 / 60 Hz, 90 ... 260 V DC or 18 ... 36 V DC / 24 V AC ± 15%
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Ambient Conditions

Operating Temp.	0 ... + 50° C	
Storage Temperature	- 20 ... + 70° C	
Relative Humidity	max. 75%, no condensation	
Fouling Factor	2	
Overvoltage Category	II	III

Operating Voltage

DC Voltage Module	300 V	150 V
AC Voltage Module	1000 V	600 V
DC / AC Current Module	300 V	150 V
Temperature Module	50 V	50 V

Housing

Plastic	ABS
Front Dimensions	96 x 24 mm
Bezel Height	5 mm
Protection	front panel: IP 54 rear panel: IP 20
Installation Depth	max. 126 mm plus wiring
Weight	0.3 kg
Mounting	with tabs
Terminals	Screw Terminal Blocks

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Order Information

Description / Feature	Article Number
DIGEM B 96 x 24	
Programmable, Digital Panel Meter	A1370
Non-Programmable, Digital Panel Meter	A1390
Measuring Range	
Direct Current	
0 ... 20 mA	D001
4 ... 20 mA	D002
4 ... 20 mA with 24V / 20 mA output	D003
0 ... x mA (x = min. 2 mA, max. 200 mA)	D900
± x mA (x = min. 2 mA, max. 200 mA)	D901
Direct Voltage	
0 ... 10 V	D010
0 ... 2 V	D011
0 ... x V (x = min. 2 V, max. 300 V)	D910
± x V (x = min. 2 V, max. 300 V)	D911
DC shunt ± 60 mV	D012
DC shunt ± 150 mV	D013
DC shunt ± 200 mV	D014
DC shunt ± 300 mV	D015
Alternating Current, Sinusoidal	
0 ... x mA (x = min. 2 mA, max. 200 mA)	D920
Alternating Voltage, Sinusoidal	
0 ... 200.0 V	D020
0 ... 700 V	D021
0 ... x V (x = min. 0.2 V, max. 100 V)	D921
Alternating Current, TRMS	
0 ... x mA (x = min. 2 mA, max. 200 mA)	D925
Alternating Voltage, TRMS	
0 ... 200.0 V	D025
0 ... 700 V	D026
0 ... x V (x = min. 2 V, max. 100 V)	D926
Temperature, Pt100, - 200.0 ... 800.0° C	
3-wire connection	D60
2 / 4-wire connection	D61

Description / Feature	Article Number
Display Range	
Same as measuring range	E00
± x, as requested (x = max. 1999)	E90
0 ... x, as requested (x = max. 9999)	E91
x ... y, as requested (x, y = max. 9999)	E92
- x ... y, as requested (x = max. 1999, y = max. 9999)	E93
Display in °F (only in combination with D60, D61)	E01
Measured Quantity	
Same as measuring range	EM00
Without measured quantity labeling	EM01
As requested, max. 4 characters	EM90
Decimal Point	
Same as measuring range with max. resolution	ED0
No decimal point	ED1
XXX . x	ED2
XX . xx	ED3
X . xxx	ED4
Auxiliary Power Supply	
230 V / 115 V AC or 90 ... 260 V DC	H1
24 V AC or 18 ... 36 V DC	H3
Instrument Identification	
No identification	T0
With identification as requested	T9

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