

DIG 62 x 38

2786700xxx (3-349-008-03)
1/12.98 - 11.02

- Display range: $\pm 1\ 999$
- Easy mounting with snap-fasteners
- Plug-in modules available as accessories
- Supply voltage: 5 V DC or 24 V DC with accessory adapter
- Connection via 14 pin plug connector with accessory adapter
- Tab connectors
- Minimal installation depth of max. 26.5 mm for basic unit



Applications

The DIG 62 x 38 has been specially designed to meet instrument manufacturing demands.

It can be used for the following measurements:

- Direct current measurements including 4 ... 20 mA
- Direct voltage measurements

Description

The DIG 62 x 38 can be equipped with either a bright LED display, or a reflective LCD display, depending upon model. The instrument can optionally be equipped with a transreflective display with additional illumination.

The instruments are suited for the measurement of direct current and direct voltage. The measuring range is permanently preset at the factory. The basic unit has an extremely small installation depth of max. 26.5 mm and displays a value of 000 for an input signal of 0 V or 0 A. The zero point can be shifted for direct current ranges by means of a snap-on measuring range adapter. This increases installation depth by 17 mm to a maximum of 43.5 mm.

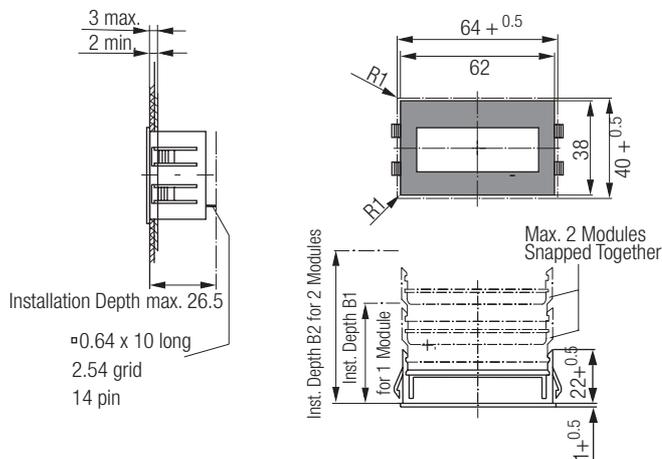
The instrument uses a 5 V DC power supply which is electrically connected to the measuring circuit. Power supply adapters for 18 ... 36 V DC, as well as for 4.75 ... 15 V DC are available as accessories. These power supply modules are snap-fastened to the instrument. Connections are accomplished by means of a 14 pin plug connector.

An accessory snap-on adapter for use with 2.8 x 0.8 mm tab connectors can be provided as an alternative to the power supply adapter.

DIG 62 x 38

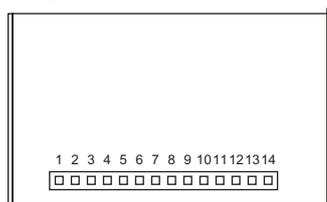
Dimensional Drawing

Panel Cutout: $45^{+0.6} \times 92^{+0.8}$



B1	1 Module
max. 43.5	live zero
max. 52.5	power supply
max. 41.5	terminals
B2	2 Modules
max. 69.5	live zero + power supply
max. 58.5	live zero + terminals

Connector Pin Assignments



- 1 Measurement input "+" for 20 V and 200 V ranges, and intermediate ranges
- 2 Not used
- 3 Measurement input "+" (high) for other ranges
- 4 Measurement input "-" (low)
- 5 Hold / segment test (common)
- 6 Segment test
- 7 Common decimal point
- 8 Decimal point 1 (XXX . X)
- 9 Decimal point 2 (XX . XX)
- 10 Decimal point 3 (X . XXX)
- 11 Save display value (hold)
- 12 Illumination (only for LCD version with illumination)
- 13 Power supply: 0 V /
- 14 Power supply: + 5 V

Characteristic Values

Display

Type	LED 7 segment	LCD 7 segment
Display Color	red option: green	reflective option: transflective with illumination
Character Height	14 mm	12.7 mm
Display Range	$\pm 1\ 999$	$\pm 1\ 999$
Polarity	Automatic display of "-"	
Decimal Point	Externally selectable	
Overflow Display	The last 3 digits are darkened if value is greater than 1 999	

Input

One permanently set measuring range	See order info / article number
Voltage drop for current	Max. 200 mV
Common-mode voltage between supply neutral and measurement input "-"	0 ... max. 2 V
Series mode rejection ratio	≤ 40 dB at 50 Hz

Overload Capacity

Voltage Ranges	10-fold, max. 250 V continuous
Current Ranges	2-fold continuous

Error Limits

Composite Error	$\pm (0.05\% + 1 \text{ digit})$
Temperature Coefficient	< 80 ppm / K
Zero Point Drift	$2 \mu\text{V} / \text{K}$

Control Commands

Save Display Value	Externally controllable
Segment Test	LED: externally controllable LCD: no segment test

Supply Voltage

Supply Voltage	5 V DC $\pm 5\%$
Current Consumption	LED: ≤ 220 mA LCD: ≤ 5 mA, with illumination: 50 mA
Accessories:	4.75 ... 15 V DC or 18 ... 36 V DC power supply with snap-on modules
Power Consumption	max. 3 W

A /-D Conversion

Conversion Method	Dual slope bipolar
Integration Time	approx. 100 ms
Measurements per Second	typ. 2.5

Ambient Conditions

Operating Temperature Range	0 ... + 50°C
Storage Temperature Range	LED: – 20 ... + 70°C LCD: – 20 ... + 60°C
Relative Atmospheric Humidity	max. 85 %

Housing

Type	Makrolon housing frame
Front Panel Dimensions	62 × 38 mm
Bezel	62 × 38 × 1 mm
Panel Cutout	60 + 0.2 × 36 + 0.2 mm
Installation Depth	Basic unit max. 26.7 mm, with live zero max. 43.5 mm, see dimensional drawing for other modules
Mounting	Snap-fastener at 14 pin plug connector (14 pin plug included as standard equipment) Accessory: snap-fastener at 2.8 x 0.8 mm tab connector

Compliance with Regulations

Protection	IP 50 at front panel
Protection Class	Suited for use in protection class I and II devices and systems
Insulation Group	A per VDE 0110 in installed condition

Accessories

4.75 ... 15 V DC or 18 ... 36 V DC Power Supply Adapter

Primary Voltage	depending upon model 4.75 ... 15 V DC or 18 ... 36 V DC
Secondary Voltage	5 V ± 5%
Overload Capacity	max. 250 mA
Residual Ripple	< 200 mV
Power Consumption at max. Load	3 W
Test Voltage	500 V primary-secondary

Order Information

Feature		Article Number	
DIG 62 x 38 LED	Measuring Instrument for DC Ranges	A1150	
	Measuring Instrument for 4 ... 20 mA / 0 ... 20 mA		A1151
LED Display	Red (standard)	•	•
	green	A1	A1
Measuring Range			
Direct Current	± 200 µA	D01	–
	± 2 mA	D02	–
	± 20 mA	D03	–
	0 ... 20 mA	D05	D05
	4 ... 20 mA	–	D06
	0 ... xx mA as requested	D90	–
Direct Voltage	± ... x mA as requested	D91	–
	± 200 mV	D10	–
	± 2 V	D11	–
	± 20 V	D12	–
	± 200 V	D13	–
	± xx V as requested	D92	–
Display Range			
Same as Input Quantity at max. Resolution		•	•
± xxx as requested		E90	–
0 ... xxx as requested		E91	E91
xx ... xxx as requested		–	E92
Decimal Point			
Same as Measuring Range (standard)		•	•
No decimal point		ED1	ED1
xxxx . X		ED2	ED2
xxx . XX		ED3	ED3
xx . XXX		ED4	ED4
x . XXXX		ED5	ED5
Measured Quantity Labeling			
No Measured Quantity Labeling		•	•
With meas. quantity labeling for at least 10 units per variant for the following quantities:	mV	EM12	EM12
	V	EM13	EM13
	µA	EM19	EM19
	mA	EM15	EM15
	A	EM16	EM16
	Hz	EM17	EM17
	min ⁻¹	EM32	EM32
	%	EM11	EM11
ms	EM31	EM31	
Operating Instructions			
German (standard)		•	•
English		W1	W1
French		W2	W2
German / English		W3	W3
German / English / French		W4	W4

DIG 62 x 38

Feature		Article Number	
DIG 62 x 38 LCD	Measuring Inst. for DC Ranges	A1160	
	Measuring Instrument for 4 ... 20 mA / 0 ... 20 mA		A1161
LCD Display	Reflective (standard)	•	•
	Transflective with illumination	A1	A1
Measuring Range			
Direct Current	± 200 µA	D01	–
	± 2 mA	D02	–
	± 20 mA	D03	–
	0 ... 20 mA	D05	D05
	4 ... 20 mA	–	D06
	0 ... xx mA as requested	D90	–
	± ... x mA as requested	D91	–
Direct Voltage	± 200 mV	D10	–
	± 2 V	D11	–
	± 20 V	D12	–
	± 200 V	D13	–
	± xx V as requested	D92	–
Display Range			
Same as Input Quantity at max. Resolution		•	•
± xxx as requested		E90	–
0 ... xxx as requested		E91	E91
xx ... xxx as requested		–	E92
Decimal Point			
Same as Measuring Range (standard)		•	•
No decimal point		ED1	ED1
xxxx . X		ED2	ED2
xxx . XX		ED3	ED3
xx . XXX		ED4	ED4
x . XXXX		ED5	ED5

Feature		Article Number	
Measured Quantity Labeling			
No Measured Quantity Labeling		•	•
With meas. quantity labeling for at least 10 units per variant for the following quantities	mV	EM12	EM12
	V	EM13	EM13
	µA	EM19	EM19
	mA	EM15	EM15
	A	EM16	EM16
	Hz	EM17	EM17
	min ⁻¹	EM32	EM32
	%	EM11	EM11
ms	EM31	EM31	
Operating Instructions			
German (standard)		•	•
English		W1	W1
French		W2	W2
German / English		W3	W3
German / English / French		W4	W4
Power Supply Adapter for Connection to Primary Voltages of 4,75 ... 15 V DC		1703-V0090	
Power Supply Adapter for Connection to Primary Voltages of 18 ... 36 V DC		1703-V0100	

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GOSSEN Mueller & Weigert
 Kleinreuther Weg 88
 D-90408 Nuremberg, Germany
 Phone +49 911 3502-0
 Fax +49 911 3502-307/305
 e-mail: info@g-mw.de
 http://www.g-mw.de

