



±1888

Product Guide

DM Series
711.U.001.03

Digital Panel Meters, Standard

96x48
96x96

- ✓ for DC Current and Voltage
- ✓ for AC Current and Voltage
- ✓ for Standard Signals
- ✓ 96x48 mm or 96x96 mm Bezel
- ✓ 14 mm Digit Height
- ✓ Red or Green LEDs
- ✓ 3½ Digits
- ✓ Auxiliary Supply AC 115/230 V, 50 Hz



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General Data

Digital Panel Meters, Standard

Application

for standard applications in switchboard-, control equipment-, process control-, and machine tool industry.

for mounting in	switchboards, machine tools or mosaic grid panels (optional)
for measuring	DC current or DC voltage, AC current or AC voltage
connection	direct or for use on transducer, shunt, transformer

Mechanical Data

case details	rectangular format
material of case	glass-fibre reinforced thermoplastics, black
bezel	black, mat or optionally gray varnished (similar to RAL 7037) or siliceous gray (similar to RAL 7032)
terminals	screw terminal barrier strip
enclosure code	IP 50 front IP 20 rear of case
panel fixing	screw clamps
mask lettering	caption, custom logo or extra lettering to special order
operating elements	behind removable display lens; for model DMA 14 -31A20R-S3 on rear side
climatic suitability	
operating temperature range	0°C ... +23°C ... +50°C
storage temperature range	-20°C ... +23°C ... +70°C
relative humidity	≤75% annual average, non-condensing
dimensions (in mm)	DMA 14 DMA 14 ... -9
bezel	96 x 48 96 x 96
panel cutout	92 ^{+0.8} x 45.0 ^{+0.6} 92 ^{+0.8} x 92 ^{+0.8}
panel thickness	≤45 ≤45
mounting depth	120 120
bezel height	8 8

Options

caption	please specify
extra lettering	please specify
logo on the lens	please specify
special measuring range	on request
factory calibration	please specify
non-standard auxiliary voltage	on request
enclosure code	IP 54 up to IP 65 meter front using rubber cover attachment 96x48
mounting in mosaic grid panels	please specify type/manufacturer of mosaic grid when ordering.

additional options on request
additional data on request

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Survey

Digital Panel Meters, Standard

DMA 14

Input A
Input D
Input E
Input C
Input F
- 96 x 48 mm
-9 96 x 96 mm

Input

A-S1	DC Current 20 / 200 mA and DC Voltage 2 / 10 / 40 / 200 V
D-S1	DC Voltage 60 / 125 / 150 / 300 mV
E-S1	DC Current 20 / 200 mA and DC Voltage 2 / 10 / 40 / 200 V zero shifting
C-S1	DC Current 0/4 ... 20 mA and DC Voltage 0 ... 10 V
F-S	AC Current 3 / 6 A and AC Voltage 2 / 100 / 250 / 500 V
A-S3	DC Voltage 0 ... 20 V unipolar

Display Colour

R	red
G	green

Case

-	96 mm x 48 mm
-9	96 mm x 96 mm

Measuring Ranges	Type			Input	Colour	Case
	DMA	14	- 31			
mA / V =	DMA	14	- 31	A 20	R G	-S1 -9
mV =	DMA	14	- 31	D 20	R G	-S1 -9
mA / V = zero point	DMA	14	- 31	E 20	R G	-S1 -9
standard signal	DMA	14	- 31	C 20	R G	-S1 -9
A / V ~	DMA	14	- 31	F 20	R G	-S -9
20 V=	DMA	14	- 31	A 20	R G	-S3 -9

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mA, V
mV

Short Form Data

Digital Panel Meters for DC Current and DC Voltage (mA, V / mV)

DMA 14

Input A
Input D

– 96 x 48 mm
–9 96 x 96 mm

Digits

31 3½ digits

Input

A DC Current 20 / 200 mA and
DC Voltage 2 / 10 / 40 / 200 V

D DC Voltage
60 / 125 / 150 / 300 mV

Auxiliary Voltage

20 115/230 V AC, 50 Hz electr. insulated

Display Colour, Case

please refer to **Survey**

Variant

–S1 adjustment by potentiometer and
jumper behind display lens.

Electrical Data

measuring ranges

A input DC current	input resistance	D input DC voltage	input resistance
±20 mA	110 Ω		
±200 mA	10 Ω		
DC Voltage			
±2 V	60 kΩ	±60 mV	60 kΩ
±10 V	270 kΩ	±125 mV	140 kΩ
±40 V	1 MΩ	±150 mV	160 kΩ
±200 V	4.7 MΩ	±300 mV	330 kΩ

measuring principle	dual-slope integration
conversion rate	approx. 1 read per second
error, max.	±0.1% of reading, ±1 count
auxiliary voltage	AC 115/230 V, 50 Hz, electrically insulated
power consumption	4 VA max.

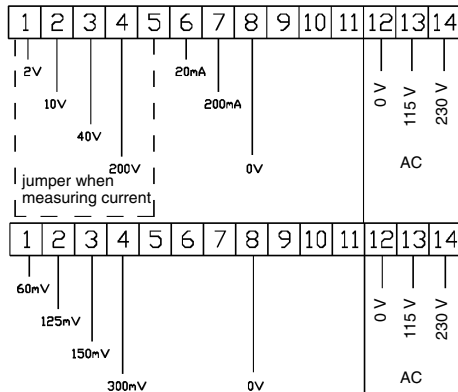
Display

display	7-segment LED, 14 mm
display span	–1999 ... +1999 counts
zero point	for input A fixed for input D programmable from –50 up to +50
end value	programmable
polarity sign	only – or ± programmable
decimal point	programmable
blanked display	programmable for 1 st digit (right-side)
overrange indication	polarity display will flash, remaining numeric segments blanked

Connection

plug-in terminal barrier strip

input A



ordering example **DMA 14 – 31 A 20 R –S1 –**

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mA, V

Short Form Data

Digital Panel Meters for DC Current and DC Voltage Zero Point Shifting

DMA 14

Input E
Input C

– 96 x 48 mm
–9 96 x 96 mm

Digits

31 3½ digits

Input

E DC Current 20 / 200 mA and
DC Voltage 2 / 10 / 40 / 200 V

C DC Current 0/4 ... 20 mA and
DC Voltage 0 ... 10 V

Auxiliary Voltage

20 115/230 V AC, 50 Hz electr. insulated

Display Colour, Case

please refer to **Survey**

Variant

–S1 adjustment by potentiometer and
jumper behind display lens.

Electrical Data

measuring ranges

E input DC current	input resistance	C input DC current	input resistance
±20 mA	110 Ω	0/4 ... 20 mA	100 Ω
±200 mA	10 Ω		
DC voltage		DC voltage	
±2 V	160 kΩ	0 ... 10 V	160 kΩ
±10 V	740 kΩ		
±40 V	2.2 MΩ		
±200 V	12 MΩ		

zero point	for C input programmable from 2 up to 6 mA
measuring principle	dual-slope integration
conversion rate	approx. 1 read per second
error, max.	±0.1% of reading, ±1 count
auxiliary voltage	AC 115/230 V, 50 Hz, electrically insulated
power consumption	4 VA max.

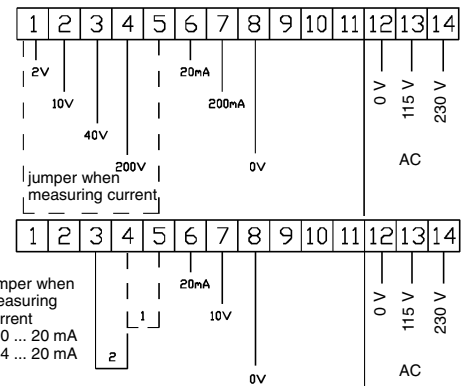
Display

display	7-segment LED, 14 mm
display span	–1999 ... +1999 counts
zero point	for input E programmable from –500 up to +500
end value	programmable
polarity sign	only – or ± programmable
decimal point	programmable
blanked display	programmable for 1 st digit (right-side)
overrange indication	polarity display will flash, remaining numeric segments blanked

Connection

plug-in terminal barrier strip

input E



ordering example **DMA 14 – 31 C 20 R –S1 –9**

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A, V

Short Form Data

Digital Panel Meters for AC Current/Voltage, TRMS

DMA 14

Input F

- 96 x 48 mm
-9 96 x 96 mm

Digits

31 3½ digits

Input

F AC current 3 / 6 A and
AC voltage 2 / 100 / 250 / 500 V

Auxiliary Voltage

20 230 V AC, 50 Hz
electrically insulated

Display Colour, Case

please refer to **Survey**

Variant

-S adjustment by potentiometer and
jumper behind display lens.

Electrical Data

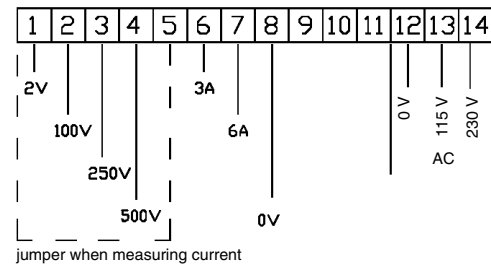
measuring ranges	input resistance
AC current	
3 A	20 mΩ
6 A	10 mΩ
AC voltage	
2 V	5 kΩ
100 V	270 kΩ
250 V	680 kΩ
500 V	1.3 MΩ
measuring principle	dual-slope integration, true RMS
conversion rate	approx. 1 read per second
error, max.	±0.2% of reading, ±1 count
auxiliary voltage	AC 115/230 V, 50 Hz, electrically insulated
power consumption	4 VA max.

Display

display	7-segment LED, 14 mm
display span	0 ... 1999 counts
zero point	programmable from 0 up to 20
end value	programmable
polarity sign	none
decimal point	programmable
blanked display	programmable for 1 st digit (right-side)
overrange indication	polarity display will flash, remaining numeric segments blanked

Connection

plug-in terminal barrier strip



ordering example **DMA 14 - 31 F 20 R -S -**

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V

Short Form Data

Digital Panel Meters for DC Voltage (20V) Rear Potentiometer

DMA 14

Input A

- 96 x 48 mm
-9 96 x 96 mm

Digits

31 3½ digits

Input

A DC Voltage 0 ... 20 V unipolar

Auxiliary Voltage

20 230 V AC, 50 Hz
electrically insulated

Display Colour, Case

please refer to **Survey**

Variant

-S3 adjustment by potentiometer
on meter rear side

Electrical Data

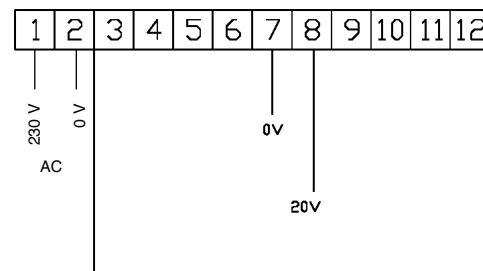
measuring ranges	input resistance
DC voltage	
20 V	530 kΩ
measuring principle	dual-slope integration
conversion rate	approx. 1 read per second
error, max.	±0.1% of reading, ±1 count
auxiliary voltage	AC 230 V, 50 Hz, electrically insulated
power consumption	4 VA max.

Display

display	7-segment LED, 14 mm
display span	0 ... 1999 counts
zero point	fixed
end value	programmable
polarity sign	none
decimal point	programmable
blanked display	programmable for 1 st digit (right-side)
overrange indication	polarity display will flash, remaining numeric segments blanked

Connection

plug-in terminal barrier strip



ordering example **DMA 14 - 31 A 20 R -S3 -9**

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– specifications subject to change without notice; date of issue 01/07 –