**DC CURRENT OR VOLTAGE**

**1 INPUT 3 OUTPUTS**

**INPUT**
- Rated value $I_n$: ± 0-1 / 5 / 10 / 20 & 4-20mA
- Voltage drop: 20mV
- Rated value $U_n$: ±20mV......10V
- Impedance: 100 kOhm / volt
- Working range: ±125% $I_n$
- Overload continuous: 4 x $I_n$

**OUTPUT**
- Rated value mA: 0-1/5/10/20 & 4-20mA
- Load resistance: 10/2/1/0.5 kOhm
- Rated value volts: 0-5 / 10 & 1-5 V

**ADJUSTMENT**
- Zero: ± 2%
- Span: ± 10%

**AUXILIARY**
- A.C. Voltage: 115 / 230 / 400 V (± 25% / 45-65 Hz / < 2VA)
- D.C. Voltage: 24 / 48 / 110 V (± 20% / galvanically isolated / <3W)

**TECHNICAL SPECIFICATION**

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**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Input $I_n$</th>
<th>Output $U_n$</th>
<th>Aux.</th>
<th>Freq.</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>M100-DM3</td>
<td>1mA</td>
<td>A= 1mA</td>
<td>230V</td>
<td>50Hz</td>
<td>B=4-20mA, C=10V</td>
</tr>
</tbody>
</table>

**OPTIONS**

1. Non standard inputs / outputs only as far as technically acceptable.
2. A.C. Auxiliary in range 57.7 to 450 volts
3. Calibration at temperature other than 23°C

**CONNECTION DIAGRAMS**

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**SELECTION GUIDE**

M100-DM3  One input three outputs

**TYPICAL APPLICATIONS**

The M100-DM3 takes 1 DC Input and provides 3 isolated outputs all directly proportional to the input. The outputs can all be of the same D.C. Value or can be different. Typically this product is used to prevent earth loops between measuring devices. For example the M100-DM3 could have its input signal provided by a M100-WA4 watt transducer or 4-20mA output. The 3 outputs from the M100-DM3 could be as follows.

Output A = 4-20mA fed to a PLC.
Output B = 0-20mA fed to a analogue meter scaled in kW.
Output C = 1-5 volt fed to a chart recorder.

The isolation between the Input / Output / Case is 1.5kV and the isolation between each output is 500 volts.
GENERAL SPECIFICATIONS

ENVIRONMENTAL

Working temperature 0 to +60 deg C
Functional temperature -25 to +70 deg C
Storage temperature -55 to +85 deg C
Temperature coefficient 0.02% per deg C (100 ppm / °C)
Relative humidity 95% non condensing
Class of climate HSE complying with DIN 40040

ACCURACY

Class ±0.2 % complying with IEC 688
Calibration temperature 23°C
Temperature coefficient 0.01% / °C (100 ppm / °C)
Stability 0.05 % per annum non cumulative
Warm up time <15 min

OUTPUT

Rated value See individual product pages
Load resistance mA (Unless otherwise stated)
1 mA < 15 kOhm
5 mA < 3 kOhm
10 mA < 1.5 kOhm
20 mA < 0.75kOhm
40 mA < 0.75kOhm
Load resistance volts
1, 5 & 10 volts > 1 kOhm
1, 5 & 10 volts > 50kOhm
< 0.1 %
Ripple <0.5% peak-peak at full load
Response time <200 msec for 0-99 % at full load
Overload < 2 x rated value at full load
No load voltage < 27 V

INSULATION

Test voltage 4kV RMS 50Hz 1min. between
Input / Case / Auxiliary / Output
Impulse test EMC 5kV transient complying with IEC 801 / EN55020
HF interference test EHF 2.5kV 1MHz complying with IEC 255-4
Protection class II complying with IEC 348
BS 4753 / DIN 57411 / VDE 0411

APPLIED STANDARDS

General IEC 688 / BS 6253 / VDE/VDI 2192
Safety BS EN61010
DIN 57411 / VDE 0411
ANSI C37
Surge withstand IEC 801 / EN 55020
ANSI C37-90a
Radio screening RFI degree N complies with VDE 0875
EMC Emissions EN50081-2
Immunity EN50082-1

ENCLOSURE

Fixing Snap on to DIN rail 35 x 7.5 mm
complies with DIN-EN 50022
BS 5584
Mounting Any position
Enclosure Code Case IP 50 / terminals IP 30
Complies with IEC 529
BS 5490 DIN 40050

APPROVALS

cU.L. Approval File No E157034

CASE DIMENSIONS

All Dimensions in mm

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