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MOSTEC

Operating Manual

Digital Display

M2029A (AR)

Warranty

Mostec warrants this product to be free of manufacturing defects for a 2-year period after the original date of purchase. Within this period, defective products will be repaired free of charge provided that the defect occurred during normal operation. This warranty does not cover damage to the product resulting from ordinary usage such as front panel scratches, broken control elements and corrosion, etc. The customer is responsible for shipping and packing charges for products returned under warranty to Mostec. Mostec warrants this product beyond the 2-year warranty period for an additional 2 years in case of long term damages due to improper manufacturing. Such damages as poorly soldered joints or other assembly problems are also covered by the warranty. Transportation damages are not covered by the warranty and should be referred to the respective delivery service.

Technical description

The M2029-A and M2029-AR are panel mounted display units to display physical units as: pressure, weight, RPM, temperature, voltage, current, %, ppM etc. Input signals are voltages or currents. An isolating switching power supply is used to galvanically isolate between supply and signal. Two optional, floating alarm contacts for heavy loads are available. The small outlines, W x H x D of 48 x 24 x 75mm makes the instrument useful on highly populated panels. A 4-digit LED display shows the actual value and setpoints or alarm values in the range of -1999 to 9999 units. All settings as alarm values, hysteresis, range and operating mode of the floating contacts can be programmed with a link cable, connected to a personal computer or a laptop. Both alarm contacts can also be programmed with two tiny push button switches behind the front panel.

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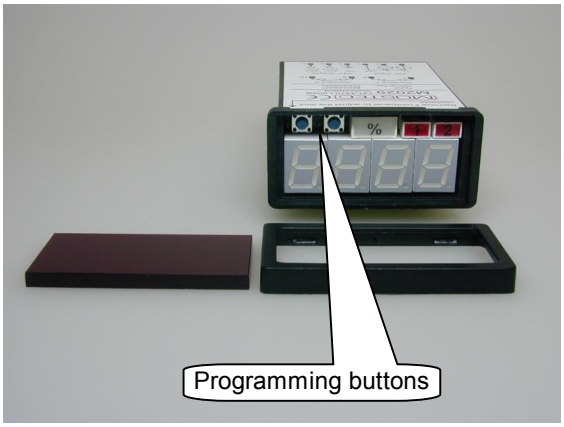
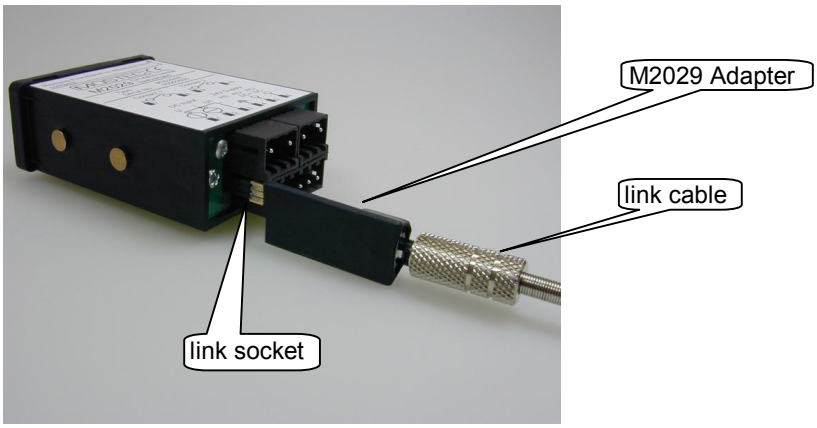
A. Programming buttons

Remove front elements carefully with a pointed device.



B. Link socket

Put the "M2029-Adapter" in the link socket. Put the link cable in the "M2029-Adapter".



C. Adjusting the limit contacts with two programming buttons

The value of the limit contacts can be changed by two buttons without programming Software. (see A)

Adjust the #1 limit contact:

- Push and hold the left button.
- ⇨ The display shows the value for the #1. limit contact.
- ⇨ After 5 seconds the display is flashing and the value can be changed by the two buttons (left button <lower>, right button <higher>).
- ⇨ After ca. 10 sec. holding time, the adjusted value is stored and the display shows the actual value.

Adjust the #2 limit contact:

- Push and hold the right button.
- ⇨ The display shows the value for the #2. limit contact.
- ⇨ After 5 seconds the display is flashing and the value can be changed by the two buttons (left button <lower>, right button <higher>).
- ⇨ After ca. 10 sec. holding time, the adjusted value is stored and the display shows the actual value.

D. Adjusting the limit contacts with programming software

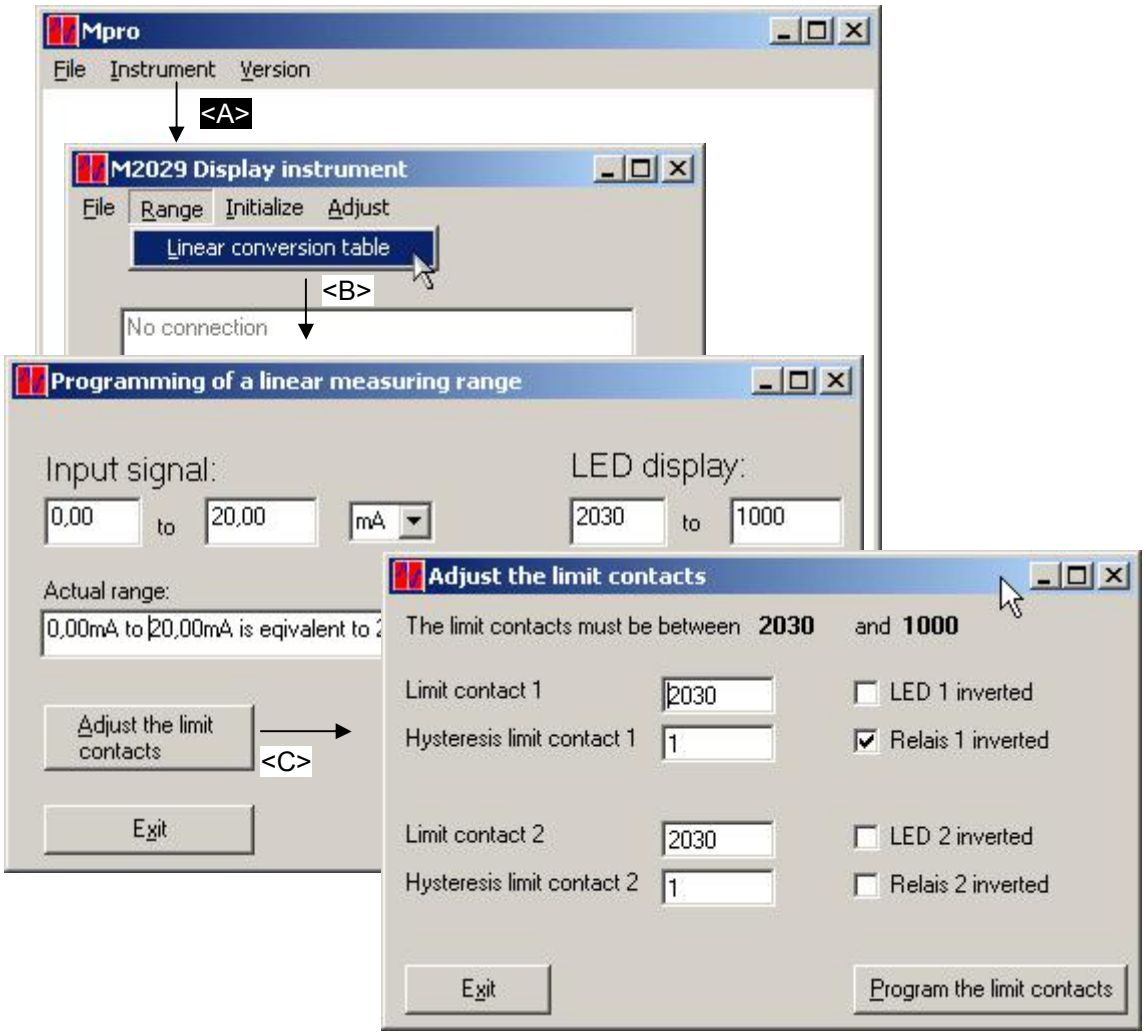
Connect the link cable with Adapter to the Computer and the display. (see F, page 6)

1. start "M*pro*"
2. Choose "M2029" in menu "Instrument" <A>
3. Choose "Linear conversion table" under "Range" <B>
4. Choose "Adjust the limit contacts" <C>
5. Enter the values for the limit contacts and all other settings (hysteresis etc.)
6. Choose "Program the limit contacts"

E. Adjusting the display range with programming software

Connect the link cable with Adapter to the Computer and the display. (see F, page 6)

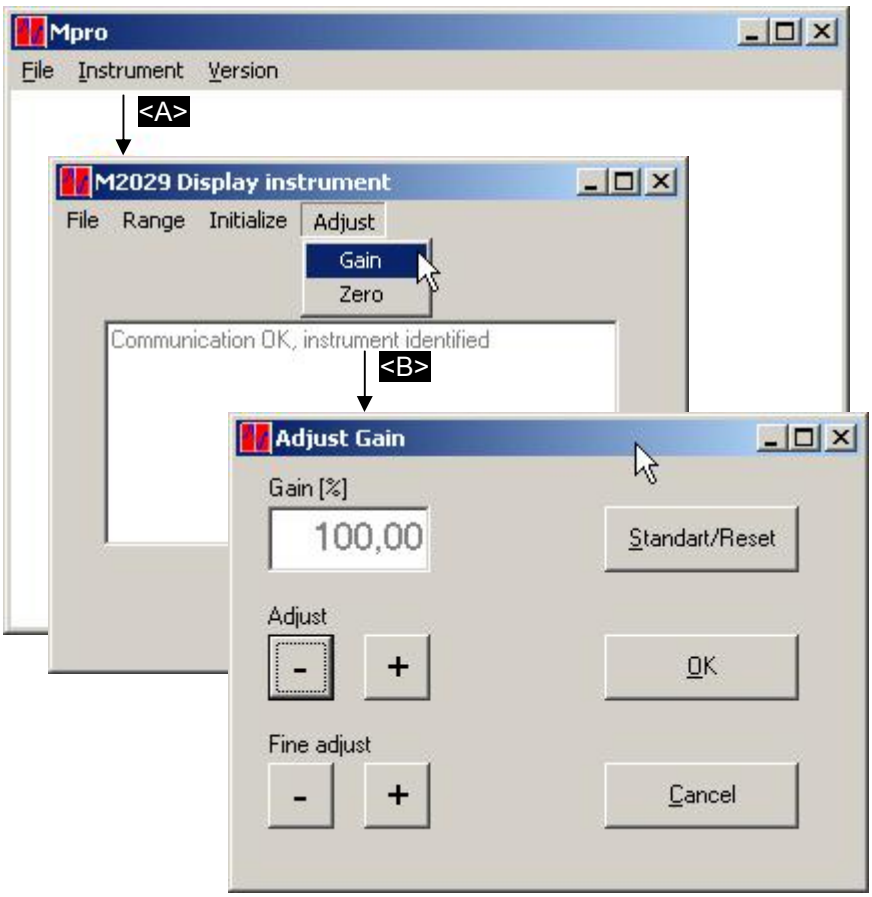
1. start "M*pro*"
2. Choose "M2029" under "Instrument" <A>
3. Choose "Linear conversion table" under "Range" <B>
4. Enter the value for input range, output range and decimal place
5. Choose "Program"



F. Fine-adjust the display with programming software

Connect the link cable with adapter to the computer and the display. (see F, page 6)

1. start "M*pro*"
2. Choose "M2029" in menu "Instrument" <A>
3. Choose "Adjust" for fine-adjusting the "Gain" or "Zero" <B>.



G. General references for using the programming software

- The newest software may be downloaded any time and free of change at www.mostec.ch.
- Connect the M2029 to the power supply for programming
- Be sure that the connected COM-port isn`t used by any other peripherial device.
- If the PC or the corresponding COM-port is "grounded" by the power line cable or by other cabeling, ground loops may interfere with the measuring signal. The use of a computer with battery power is recommended to avoid such problems.
- Contact us if there are problems or questions concerning the software.

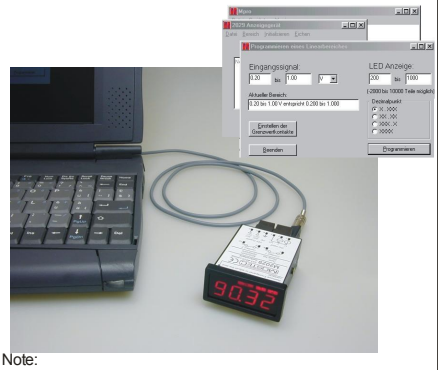
Non-liability

The company Mostec AG developed and tested the software "Mpro" with largest care. Mostec is not responsible for any damages whatsoever, including loss of information, interruption of business, personal injury and/or any damage or consequential damage without limitation, incurred before, during or after the use of our products.

H. Technical Data

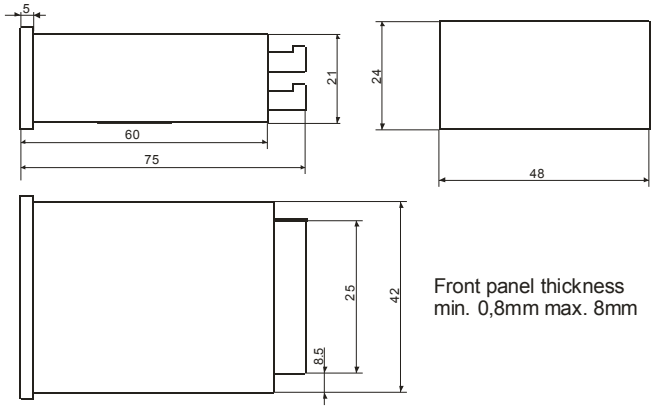
Signal input:	0/4...20mA/0...1V, 10V and 100V, others programmable
Display:	4digit LED red, 10mm
Display range:	-1999...9999 digit
Accuracy at 23°C ambient:	±0.05%
reproducibility:	±0.05%
temperature coefficient:	zero drift: typ. 30ppM/°C, gain drift: typ. 25ppM/°C
Long-term stability (3 month)::	±0.1%
Working temperature:	-5 to +45°C
Max. humidity:	95%, non-condensing
Power supply:	24VAC/DC -20%/+5%, isolated
Power supply load:	2.0W
CE-conformity:	fulfilled
Range adjustment:	by computer programmable
Zero and gain adjustment:	by computer programmable
Limit contacts M2029-AR:	all limit contacts can be adjusted over the full range
Hysteresis:	programmable, standard ±5digit
Contact rating:	230V/3A with resistive load
Adjustment of the limit contacts:	with two front accessible toggle switches or programmable by computer
Show the limit values:	with two front accessible toggle switches or programmable by computer
Display the limit contacts status:	by red LED-lamps
Display the physical unit:	by led LED-lamp
Terminals:	6 screw terminals for M2029-A, 6+2x2 screw terminals for M2029-AR
Terminal description:	1 = voltage Input (+) 2 = current Input (+) 3 = input (-) 4 = PE 5 = power supply 24VAC/DC(-) 6 = power supply 24VAC/DC(+) 7 + 8 = norm. open contact 1 (GW1) 9 + 10 = norm. open contact 2 (GW2)
Mounting:	2 mounting clamps
Weight:	≈80g
Warranty:	2 years
Options:	- Link cable for programming with a computer: P/N M2029LAP - Programming software (free download: www.mostec.ch) - Other power supply - Other signal input
How to order:	M2029-AR (with limit contacts) input 4...20mA, display1,00...10,00bar, GW1=2,00bar, GW2=9,50bar

Programming by Laptop:



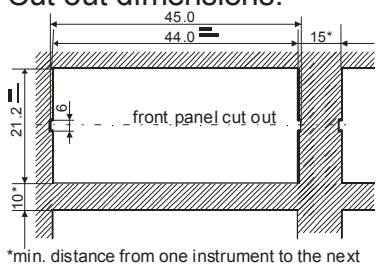
Note:
- Connect to the RS232 interface by a Mostec adapter cable
- Download free programming software: www.mostec.ch

Dimensions:



Front panel thickness
min. 0,8mm max. 8mm

Cut out dimensions:



*min. distance from one instrument to the next