

MG-AU – 4-digit large-size indicator for indoor use

Multifunction meas. input: Direct voltage, direct current, Pt100(0), thermocouple, rotational speed, counter

- red display of von -1999...9999 digits (optional 6 digits)
- digit height 57 mm, 100 mm or 200 mm
- protection class IP65
- wall mounting housing
- membrane for pressure equalisation for air ventilation and air vent
- display adjustment via factory setting or directly on the sensor signal
- minimum/maximum value recording
- 9 additional, adjustable supporting points
- display flashing at threshold value exceedance / undercut
- tara function
- brightness sensor
- programming interlock via access code
- 2 switching points (closer)
- optional: fix cable outlet 2m, 5m or 10m
- optional: connection via external keypad
- on request: communication via Bluetooth
- accessories: PC-based configuration kit PM-TOOL with CD and USB-plug



ORDER NUMBER
(without options)

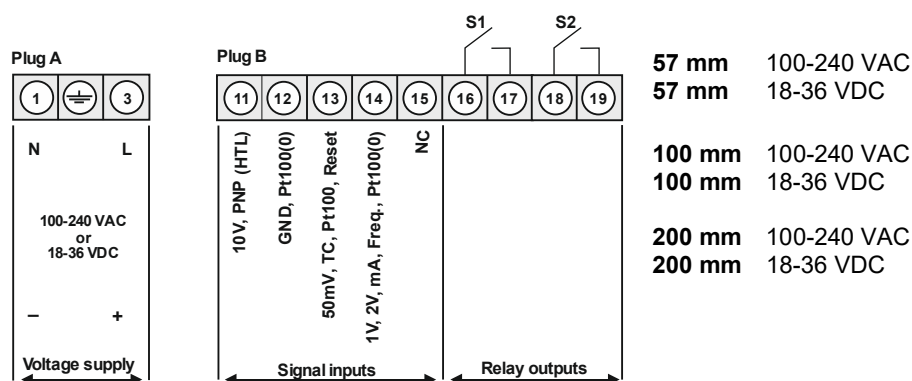
Built-on enclosure

MG-AUR41.000X.S12xO
MG-AUR41.000X.712xO

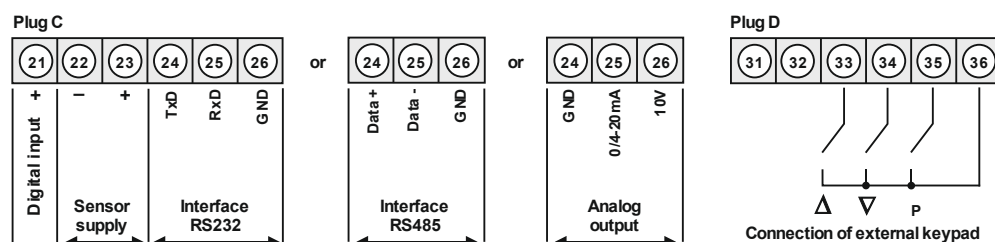
MG-AUR42.000X.S12xO
MG-AUR42.000X.712xO

MG-AUR45.000X.S12xO
MG-AUR45.000X.712xO

• Multifunction measuring input



Options:



• Parameterisation software

PC-based configuration software PM-TOOL,
for devices without keypad or for a simple parameterization
of standard devices, incl. CD and USB adapter.

ORDER NUMBER

PM-TOOL-USB

• Order key options

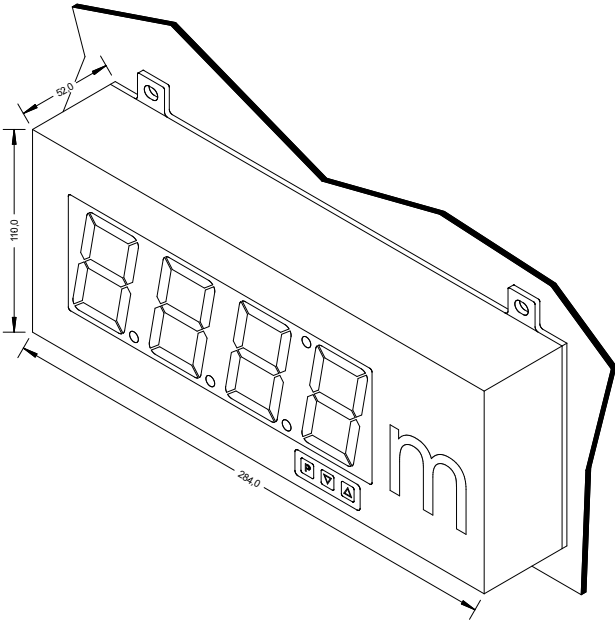
M	G	-	A	U	R	4	1.	0	0	0	X.	S	1	2	x	O		Supply 100-240 VAC / DC ± 10%	
M	G	-	A	U	R	4	1.	0	0	0	X.	7	1	2	x	O		Supply 18-36 VDC galv. isolated	
																		D	Dimension: maximum 3-digit
																		E	Connection for external keypad (plug D)
																		X	Analog output 0/4-20 mA, 0-10 VDC 16 bit*
																		2	Sensor supply 10 VDC/20 mA, digital input
																		3	Sensor supply 24 VDC/50 mA, digital input
																		3	Interface RS232 / Modbus protocol*
																		4	Interface RS485 / Modbus protocol*
																		B	Communication via Bluetooth
																		1	57 mm digit height
																		2	100 mm digit height
																		3	200 mm digit height
																		6	Number of digits: 6 – 57 mm
																		6	Number of digits: 6 – 100 mm
																		G	Green LED
																		B	Blue LED
																		O	Orange LED
																		B	Installation housing 57 mm, max. 4-digit
																		B	Installation housing 100 mm, max. 4-digit

*Option analog output cannot be combined with interface RS232/RS485.

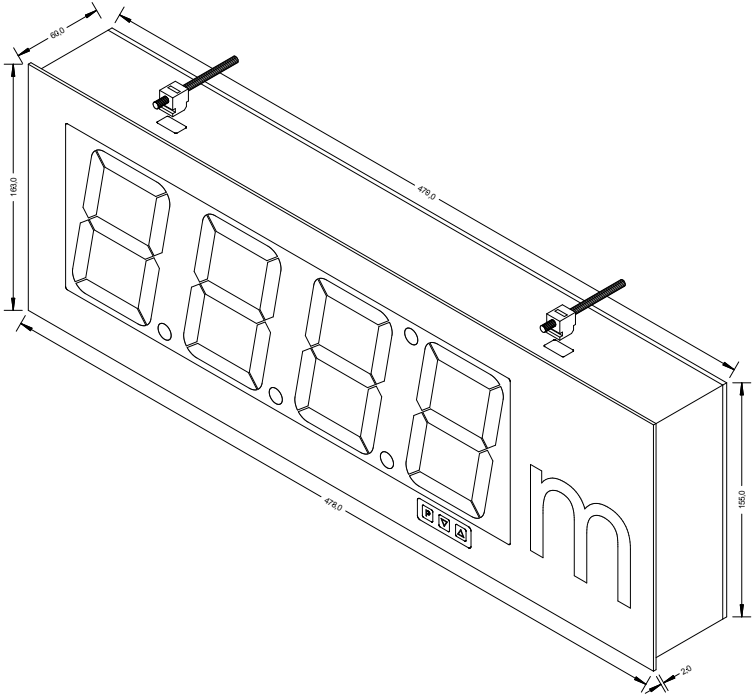
MGO (Outdoor): 57 mm (options on request) / 100 mm / 200 mm
- only possible for a voltage supply of 100-240 VAC!

• Fixing drawing for installation and built-on housing

Built-on housing



Built-in housing



• Technical data

Dimensions	Built-on housing	57 mm display: 284 mm x 110 mm x 52 mm (BxHxD) 100 mm display: 470 mm x 155 mm x 58 mm (BxHxD) 200 mm display: 998 mm x 276 mm x 58 mm (BxHxD)		
	Installation housing	57 mm display: 292 mm x 118 mm x 54 mm (BxHxD) 288 ^{-0.5} mm x 114 ^{-0.5} mm (BxH) = panel cut-out		
		100 mm display: 478 mm x 163 mm x 60 mm (BxHxD) 474 ^{-0.5} mm x 159 ^{-0.5} mm (BxH) = panel cut-out		
Fixing	Built-on housing	via fixing clamp on the rear panel		
Protection class	Built-on housing	IP65 complete		
Connection	Built-on housing	PG-screwing, rear side of housing		
	plug (internal)	Plug A: 3-pole plug-in terminal for voltage supply		
		Plug B: 9-pole plug-in terminal for measuring signal and switching outputs		
		Plug C: 6-pole plug-in terminal for analog output, sensor supply, digital input, interface (optional)		
		Plug D: 6-pole plug-in terminal for external keypad (optional)		
Weight	57 mm display (4-digit): approx. 1.3 kg 100 mm display (4-digit): approx. 2.7 kg 200 mm display (4-digit): approx. xx kg			
Display	Display	Power LEDs		
	Digit height	57 mm, 100 mm		
	Display colour	red, green (orange, blue on request)		
	Number of digits	4, optional 6 digits		
	Display range	-1999 to 9999		
	Overflow	horizontal bars at the top		
	Underflow	horizontal bars at the bottom		
	Display time	0.01 to 2.0 seconds		
	Application area	Indoor / outdoor		
	Measuring input			
Signal	Measuring range	Measuring span	Resolution	
Voltage	0...10 V Ri > 100 kOhm	0-12 V	≥ 14 bit	
Voltage	0...2 V Ri > 10 kOhm	0-2.2 V	≥ 14 bit	
Voltage	0...1 V Ri > 10 kOhm	0-1.1 V	≥ 14 bit	
Voltage	0...50 mV Ri > 10 kOhm	0-75 mV		
Current	4...20 mA Ri = ~125 Ohm	1-22 mA		
Current	0...20 mA Ri = ~125 Ohm	0-22 mA		
Pt100-3-wire	-50...200°C / -58...392°F		0.1°C / 0.1°F	
Pt100-3-wire	-200...850°C / -328...1562°F		1°C / 1°F	
Pt1000-2-wire	-200...850°C / -328...1562°F		1°C / 1°F	
Thermo K	-270...1350°C / -454...2462°F		1°C / 1°F	
Thermo S	-50...1750°C / -328...3182°F		1°C / 1°F	
Thermo N	-270...1300°C / -454...2372°F		1°C / 1°F	
Thermo J	-170...950°C / -274...1742°F		1°C / 1°F	
Thermo T	-270...400°C / -454...752°F		1°C / 1°F	
Thermo R	-50...1768°C / -58...3214°F		1°C / 1°F	
Thermo B	80...1820°C / 176...3308°F		1°C / 1°F	
Thermo E	-270...1000°C / -454...1832°F		1°C / 1°F	
Thermo L	-200...900°C / -328...1652°F		1°C / 1°F	
Frequency	0...10 kHz		0.001 Hz ± 1	
NPN	0...3 kHz		0.0001 Hz ± 1	
PNP	0...1 kHz		0.0001 Hz	
Rotational speed	0...9999 1/min		0.0001 1/min	
Counter	0...9999 (prescaler up to 1000)			
Pulse input	TTL low <2 V / High >3 V			
	HTL/PNP Low <6 V / High >8 V			
	NPN Low <0.8 V / High via resistance			
	Namur Low <1.5 mA / High >2.5 mA			
Counter reset	active < 0.8 V			
Digital input	< 2.4 V OFF, 10 V ON, max. 30 VDC, Ri~ 5 kOhm			
Output	Sensor supply	24 VDC / 50 mA incl. digital input 10 VDC / 50 mA incl. digital input		
	Analog output	0/4-20 mA, 0-10 VDC 16 bit		
	Relay	2x normally open contacts 30 VDC / 2 A resistive load		
	Interface	RS232 Modbus protocol RS485 Modbus protocol Bluetooth module 4.0		
Measuring error	Standard	0.2% of measuring range ± 1 digit		
	Pt100 / Pt1000	0.5% of measuring range ± 1 digit		
	Thermocouple	0.3% of measuring range ± 1 digit		
Accuracy	Reference junction	± 1°C		
	Temperature drift	100 ppm/K		
	Measuring time	0.01 to 2.0 seconds		
	Measuring rate	approx. 1/s with temperature sensor, approx. 100/s with standard signals		

	Measuring principle	U/F-conversion
	Resolution	approx. 14 bit at 1 sec measuring time
Power pack	Supply	100-240 VAC 50/60 Hz, DC $\pm 10\%$ 18-36 VDC, galv. isolated
	Power consumption	maximum 50 VA, max. 200mm display
Memory	EEPROM	Data life ≥ 100 years at 25°C
Ambient conditions	Working temperature	-20...+50°C with a supply of 100-240 VAC, -10...+50°C with a supply of 24 VDC
	Storing temperature	-30...+70°C
	Weathering resistance	rel. humidity $\leq 75\%$ on years average without dew
EMV	EN 61326	
CE-sign	conformity according to 2014/30/EU	
Safety requirements	according to low voltage directive 2014/35/EU; EN 61010; EN 60664-1	

• Order key

	M	G	-	A	U	R	4	1	0	0	0	X	S	1	2	x	O	
Basic type M-line																		
Large-size indicator																		
Housing type																		
Built-on housing				A														
Display type																		
Multifunction measuring input					U													
Display colour																		
Red					R													
Green (on request)					G													
Blue (on request)					B													
Orange (on request)					O													
Number of digits																		
4-digit					4													
6-digit					6													
Digit height																		
57 mm					1													
100 mm					2													
200 mm					3													
Interfaces																		
none					0													
RS232 Modbus protocol					3													
RS485 Modbus protocol					4													
Bluetooth module					B													
																		Dimension
																		☐ without
																		☐ maximum 3 characters
																		Version
																		☐ Internal version
																		Switching points
																		☐ 2 switching points
																		Operation
																		☐ Keys at the front
																		☐ Connection for external keypad
																		Supply voltage
																		☐ 18-36 VDC galv. isolated
																		☐ 100-240 VAC
																		Measuring input
																		☐ Direct voltage, direct current, Pt100(0), thermocouple, counter, frequency
																		Analog output*
																		☐ without
																		☐ 0/4-20 mA, 0-10 VDC
																		Sensor supply
																		☐ none
																		☐ 10 VDC / 20 mA
																		☐ 24 VDC / 50 mA

The option „Analog output“ cannot be combined with option “Interface”!