

OM 602



OM 602RS DATA DISPLAY RS 232/485
OM 602AV PROGRAMMABLE OUTPUT

Description

The OM 602RS model is a 6 digit panel display device for projection of data from serial lines RS 232/485.

The OM 602AV is a programmable analog output.

The instrument is based on an 8-bit processor that secures high accuracy, stability and easy operation of the instrument.

Operation

The instrument is set and controlled by five control keys located on the front panel. All programmable settings of the instrument may be performed in three adjusting modes :

Light menu is protected by optional number code and contains solely items necessary for instrument setting

Profi menu is protected by optional number code and contains complete instrument setting

User menu may contain arbitrary items from the programming menu (LIGHT/PROFI), which determine the right (see, change). Access w/o password.

Standard equipment is the OM Link interface, which together with operation program enables modification and filing of all instrument settings as well as perform firmware updates (with OML cable). The program is also designed for visualization and filing of measured values from more instruments .

All settings are stored in the EEPROM memory (they hold even after the instrument is switched off).

The measured units may be projected on the display.

Options

Excitation is suitable for feeding of sensors and transmitters. It is isolated, with continuously adjustable value in the range of 5...24 VDC.

Comparators are assigned to monitor one, two, three or four limit values with relay output. The user may select limits regime: LIMIT/DOSING/FROM-TO. The limits have adjustable hysteresis within the full range of the display as well as selectable delay of the switch-on in the range of 0...99,9 s. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of

- 6-digit programmable projection
- Size of DIN 96 x 48 mm
- Power supply 80...250 V AC/DC

OMLINK

Options

- Excitation • Comparators • Data output • Analog output • Time backup
- Power supply: 10...30 V AC/DC

the relevant relay.

Data outputs are for their rate and accuracy suitable for transmission of the measured data for further projection or directly into the control systems. We offer an isolated RS232 and RS485 with the ASCII/MESSBUS/MODBUS/PROFIBUS protocol.

Analog outputs will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analog output with the option of selection of the type of output - voltage/current. The value of analog output corresponds with the displayed data and its type and range are selectable in CM.

Standard functions

PROGRAMMABLE PROJECTION

Input (RS): selectable RS 232 or RS 485 with ASCII, MESSBUS or MODBUS - RTU protocol

Projection: -99999...999999 with fixed or floating DP

Setting (AO): optional projection may be set for both limit values of the AO range in „CM“

DIGITAL FILTERS (UQC)

Exponen. average: z 2...100 measurements

n-th value: z 2...100 measurements

Radius of insensitiveness: band of suppressed change of measured value

FUNCTIONS (UQC)

Min./max. value: registration of min./max. value reached during measurement

Mat. operations: polynome, 1/x, log., exponential, power, root, sin x

Type of output signal (AV): sinus/saw/triangle/rectangle/random functions (selected by control keys or on inputs 1 and 2)

EXTERNAL CONTROL

Hold: display/instrument blocking

Lock: control keys blocking

Reset: reset min./max value

Function: controlling optional functions from the instrument menu

Technical data

PROJECTION

Display: 999999, red or green 14-segment LED, digit height 14 mm; 9999, červené/zelené 7-mi segmentové LED, výška 20 mm

Decimal point: setting - in programming mode

Brightness: setting - in programming mode

INSTRUMENT ACCURACY

TC: 50 ppm/°C

Function (AV): sine/ramp/triangle/square/random function

Input filters: exp./floating/arithmetic average, Rounding

Functions: Min/max value, Tare, Mathematic operations

Ext. control: HOLD, LOCK, Tare, Resetting to zero

Data record: measured data record into instrument memory

RTC - 15 ppm/°C, time-date-display value, < 250k data

FAST - display value, < 8k data

Watch-dog: reset after 0,4 s

OM Link: Company communication interface for operation, setting and update of instruments

Calibration: at 25 °C and 40 % r.h.

COMPARATOR

Type: digital, setting in prog. mode, contact switch < 30 ms

Limits: -99999...999999

Hysteresis: 0...999999

Delay: 0...99,9 s

Output: 2x relay Form A (250 VAC/30 VDC, 3 A) and 2x Form C relay (250 VAC/50 VDC, 3 A), 2x/4x open collector, 2x SSR, 2x latching relay

DATA OUTPUT

Protocol: ASCII, MESSBUS, MODBUS - RTU, PROFIBUS

Data format: 8 bit + no parity + 1 stop bit (ASCII)

7 bit + even parity + 1 stop bit (DIN Messbus)

Rate: 600...230 400 Baud

RS 232: isolated

RS 485: isolated, addressing (max. 31 instruments)

ANALOG OUTPUT

Type: isolated, programmable with resolution of max. 10 000 points, AO corresponds with the displayed data, type and range are selectable in programming mode

Non-linearity: 0,2 % of range

TC: 100 ppm/°C

Rate: response to change of value < 150 ms

Ranges: 0...2/5/10 V, 0...5 mA, 0/4...20 mA (on request ±10V) (comp. < 500 Ω/12 V or < 1 000 Ω/24 V)

EXCITATION

Adjustable: 5...24 VDC/max. 1,2 W

POWER SUPPLY

10...30 V AC/DC, ±10%, 10 VA

80...250 V AC/DC, ±10%, 10 VA

Power supply is protected by a fuse inside the instrument

MECHANIC PROPERTIES

Material: Noryl GFN2 SE1, incombustible UL 94 V-1

Dimensions: 96 x 48 x 120 mm

Panel cutout: 90,5 x 45 mm

OPERATING CONDITIONS

Connection: connector terminal board, section < 2,5 mm²

Stabilization period: within 15 minutes after switch-on

Working temperature: 0°...60°C

Storage temperature: -10°...85°C

Cover: IP65 (front panel only)

El. safety: EN 61010-1, A2

Insulation resistance: for pollution degree II, measuring cat. III. power supply > 670 V (PI), 300 V (DI)

input, output, Exc. > 300 V (PI), 250 V (DI)

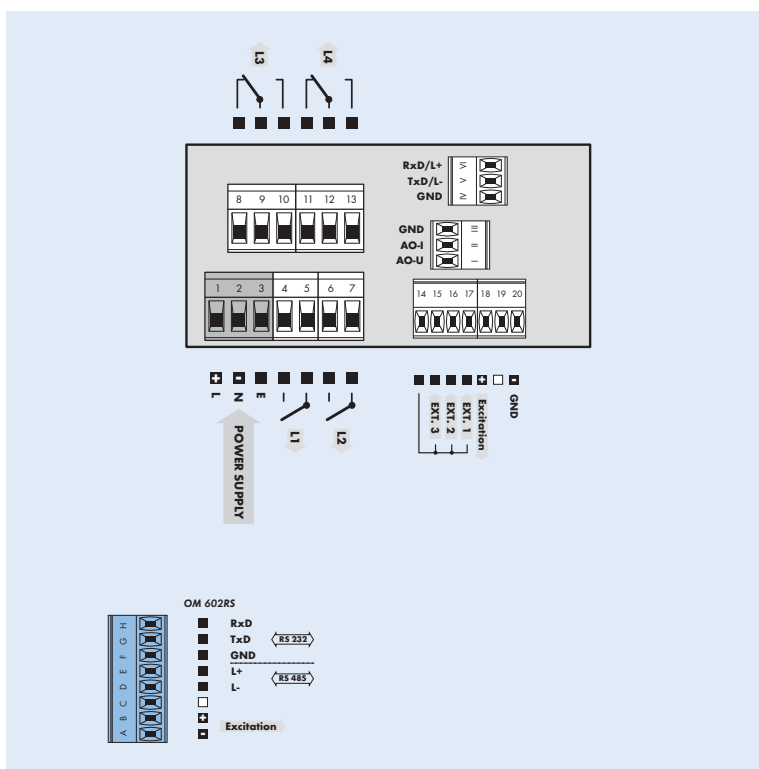
EMC: EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 55022, A1, A2

PI - Primary insulation, DI - Double insulation

Measuring ranges

	AV	RS
w/o	Programmable analog output	
A		ASCII/MESSBUS
B		MODBUS - RTU
Z	on request	on request

Connection



Order code

OM 602		[][][][][][][][][][][][]									
		R	S	• • • • • • • • • •							
		A	V	• • • • • • • • • •							
Power supply	10...30 V AC/DC 80...250 V AC/DC	0 1									
Option, see table „Measuring ranges“		?									
Comparators	no 1x relay (switch-on) 2x relay (switch-on) 3x relay (2x switch-on + 1x switching) 4x relay (2x switch-on + 2x switching) 2x open collector 4x open collector 2x open collector + 2x relay (switching) 2x relay (switching) 2x SSR 2x latching relay 1x relay (switching)	0 1 2 3 4 5 6 7 8 9 A B									
Data output	none (For type „LX“ in basic set) RS 232 RS 485 MODBUS* PROFIBUS*	0 1 2 3 4									
Analog output	no yes (comp. < 500 Ω/12 V) yes (comp. < 1 000 Ω/24 V)	0 1 2									
Excitation	no yes	0 1									
Data record	no RTC FAST	0 1 2									
Display color	red (14 mm) green (14 mm) red/green (20 mm)*	1 2 3									

* Scheduled for sale in 1st Q of 2007