## **OM** 602AV



### PROGRAMMABLE ANALOG OUTPUT

- 6-DIGIT PROGRAMMABLE PROJECTION
- OUTPUT: 0...5/20 mA/4...20 mA
  - 0...2/5/10 V; ±10 V
- SINUS/SAW/TRIANGLE/RECTANGLE/ RANDOM FUNCTION
- SIZE OF DIN 96 x 48 MM
- POWER SUPPLY 10...30 V AC/DC; 80...250 V AC/DC
- Excitation Comparators Data output Three-color display - 20 mm



## **OM** 602AV



OM 602AV is a panel programmable analog output.

The instrument is based on a single-chip microprocessor and precision D/A converter, which guarantees accuracy, stability and easy control.

### **OM** 602AV

PROGRAMMABLE OUTPUT

### OPERATION

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

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

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 performing 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 (settings hold even after the instrument is switched off). The measured units may be projected on the display.

# STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION Setting: optional projection may be set for both limit values of the AV range

Projection: -99999...999999

### ANALOG OUTPUT

Type: isolated, programmable with a resolution of 16 bit, rate < 1 ms

Output signal: sinus/ramp/triangle/square/random function

Range: 0...2/5/10 V, ±10 V, 0...5 mA, 0/4...20 mA

### EXTERNAL CONTROL

Hold: display/instrument blocking

Lock: control keys blocking

Functions: control of optional functions from instrument menu

### OPTION

**EXCITATION** is suitable for feeding sensors and transmitters. It is continuously adjustable within the range of 5...24 VDC.

COMPARATORS are assigned to monitor one, two, three or four limit values with relay output. As a user you can select the mode limit: LIMIT/BATCH/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 the relevant relay.

DATA DUTPUTS 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/PROFIBUS protocols.



### TECHNICAL DATA

### OUTPUT

isolated, programmable with a 16-bit D/A converter, output type and range are optional in the menu ΔV Type

Range 0...2 V 0...10 V ±10 V

0...5 mA compensation < 1 000 Ω/24 V compensation < 1 000 Ω/24 V compensation < 1 000 Ω/24 V 0...20 mA 4...20 mA

0,1 % of range TK 15 ppm/°C

Rate response to change of value < 1 ms

the instrument generates signal within the set Functions range and frequency; in addition you can set the min. and max. signal change times as well as number of generated pulses

MANUAL manual setting of the output value SINUS sinus output signal RAMP TRIANGL. triangle output signal SQUARE rectangle output signal RANDOM random generated signal

Ext. inputs 3 inputs, on contact The following functions can be assigned: NEE input off control keys blocking LOCK display stop menu access blocking HOLD PASS. CL. M.M. resetting min/max value CH1. UP. long step - up CH1. DW. CH2. UP. long step - down fine step - up CH2. DW. fine step - down min. range MIN. V. MAX. V. max. range

increases every 10 ms by "Step" decreases every 10 ms by "Step" start of the set cycle NWN STOP stop of the set cycle start/stop of the set cycle ST.-ST.

#### PROJECTION

Display: -99999...999999, single color 14-segment LED; -999...9999, 3-color 7-segment LED

Digit height: 14 or 20 mm
Display color: red or green (height 14 mm)

red/green/orange (height 20 mm) Description: the last two characters on the display can be used to

describe the measured quantities (jen height 14 mm) Decimal point: adjustable - in menu Brightness: adjustable - in menu

#### INSTRUMENT ACCURACY

TK: 50 ppm/°C 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, menu adjustable, contact switch-on < 30 ms Hysteresis mode: switching limit, hysteresis band \_Lim ±1/2 Hys.\* and time (0...99,9 s) determining the switching delay Mode From-To: switching on and switching off interval

Mode Batch: period, its multiples and time (0 ... 99.9 s), within which

the output is active

Mode CH.From-To - switching on and switching off intervals, which

represent the measuring range. Above and under the set intervals the instrument displays an error message, underflow/overflow Output: 1...2x relays Form A (250 VAC/30 VDC, 3 A) and 1...2x relays Form C (260 VAC/50 VDC, 3 A); 2x/4x open collector [30 VDC/100 mA); 2x SSR [250 VAC/ 1 A]; 2x bistabile relays (250 VAC/250 VDC, 3 A/0,3 A)

#### DATA OUTPUTS

Protocol: ASCII, MESSBUS, MODBUS RTU, PROFIBUS DP Data format: 8 bit + no parity + 1 stop bit (ASCII)
7 bit + even parity + 1 stop bit (Messbus) Rate: 600...230 400 Baud

9 600 Baud...12 Mbaud (PROFIBUS)

RS 232: isolated RS 485: isolated, addressing (max. 31 instruments)

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

#### POWER SUPPLY

**Range:** 10...30 V AC/DC, ±10 %, PF≥0,4,  $I_{\rm srp}$ < 40 A/1 ms, isolated 80...250 V AC/DC, ±10 %, PF≥0,4,  $I_{\rm srp}$ < 40 A/1 ms, isolated Consumption: < 9,4 W/9,2 VA

### MECHANIC PROPERTIES

Material: Noryl GFN2 SE1, incombustible UL 94 V-I **Dimensions:** 96 x 48 x 120 mm (w x h x d) Panel cutout: 90,5 x 45 mm (w x h)

### OPERATING CONDITIONS

Connection: connector terminal blocks, section < 1,5/2,5 mm<sup>2</sup> Stabilization period: within 15 minutes after switch-on

Working temperature: -20°...60°C Storage temperature: -20°...85°C Protection: IP64 (front panel only)

El. safety: EN 61010-1, A2

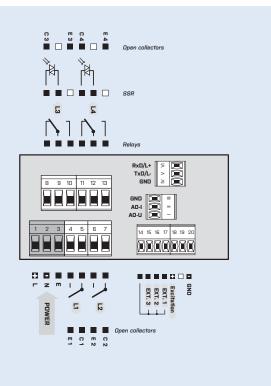
Dielectric strength: 4 kVAC per 1 min test between supply and input 4 kVAC per 1 min test between supply and data/analog output 4 kVAC per 1 min test between input and relay output 2.5 kVAC per 1 min test between input and data/analog output Insulation resistance: for pollution degree II, measuring cat. III power supply > 670 V (PI), 300 V (DI)

input, output, PN > 300 V (PI), 150 V (DI) EMC: EN 61326-1

Seismic capacity: IEC 980: 1993, par. 6 SW validation: Class B, C in compl. with IEC 62138, 61226

PI - Primary insulation, DI - Double insulation

## CONNECTION



## ORDER CODE

OM 602A	·V -						-
Power supply	1030 V AC/DC	0					
0	80250 V AC/DC	1	0	-			
Comparators	none		1				
	1x relay (Form A) 2x relay (Form A)		2				
	3x relays (2x Form A + 1x Form C)		3				
	4x relays (2x Form A + 2x Form C)		4				
	2x open collector		5				
	4x open collector		6				
	2x open collector + 2x relays (Form C)		7				
	2x relays (Form C)		8				
	2x SSR		9				
	2x bistabile relays		A				
	1x relay (Form C)		В				
Data output	none			0			
•	RS 232			1			
	RS 485			2			
	MODBUS			3			
	PROFIBUS			4			
Excitation	no				0		
	yes				1		
Display color	red (14 mm)					1	
	green (14mm)					2	
	red/green (20mm)					3	
Specification	customized version, do not fill in						00
	SW validation - IEC 62138, IEC 61226						VS

Basic configuration of the instrument is indicated in bold.