

AR507

Temperature meter



Single channel temperature meter



- 1 universal measurement input (thermoresistance, thermocouple, digital temperature probes AR182 and AR183)
- BIN input for stopping the measurement - HOLD function
- LED display with adjustable brightness
- compensation of line resistance for resistance sensors
- temperature compensation of thermocouple cold ends
- programmable input, filtration and other configuration parameters
- memorizing minimum and maximum values
- access to configuration parameters protected with a user password
- parameter configuration methods:
 - via membrane keyboard (IP65) located on the front panel of the device
 - via RS485 or PRG AR955/GP programmer and freeware: ARsoft-LOG (Windows 7/8/10)
- software and programmer allow you to view the measured value and quickly configure single or few sets of parameters previously saved in the computer for re-use, e.g. in other controllers of the same type (duplicate configuration)
- ingress protection rating: IP65 from the front
- high accuracy, long-term stability and immunity to interference
- wide range of supply voltages: 15 ÷ 250 Vac (alternating voltage), 20 ÷ 350 Vdc (direct voltage)

Contents of set:

- meter with handles mounting in the window
- user manual
- warranty card

Available accessories:

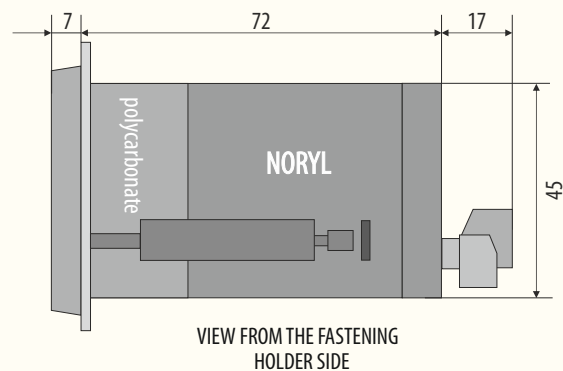
- programmer AR955
- cyfrowe sondy temperatury AR182, AR183

How to order:

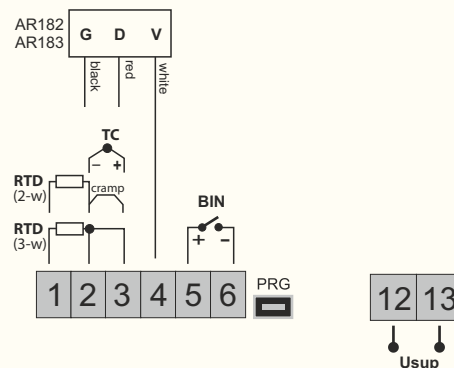
AR507

DIMENSIONS, INSTALLATION DATA

Enclosure dimensions	96x48x79 mm
Panel window	92x46 mm
Fixing methods	panel, grips on the side of the enclosure
Material	elf-extinguishing polycarbonate NORYL 94V-0
Leads cross sections	2,5mm ² (power), 1,5mm ² (remaining)



TERMINAL STRIPS, ELECTRICAL CONNECTIONS



TECHNICAL DATA

Universal inputs (programmable)	measurement ranges
- Pt100 (RTD, 3- or 2-wire)	-100 ÷ 850 °C
- thermocouple J (TC, Fe-CuNi)	0 ÷ 880 °C
- thermocouple K (TC, NiCr-NiAl)	0 ÷ 1200 °C
- thermocouple S (TC, PtRh 10-Pt)	0 ÷ 1750 °C
- thermocouple B (TC, PtRh30PtRh6)	300 ÷ 1800 °C
- thermocouple R (TC, PtRh13-Pt)	0 ÷ 1600 °C
- thermocouple T (TC, Cu-CuNi)	0 ÷ 380 °C
- thermocouple E (TC, NiCr-CuNi)	0 ÷ 700 °C
- thermocouple N (TC, NiCrSi-NiSi)	0 ÷ 1300 °C
- digital temperature probe AR182	-50 ÷ 120 °C
- digital temperature probe AR183	-50 ÷ 80 °C
Number of measurement inputs	1
Response time for measurements (10 ÷ 90%)	0,5 ÷ 2 s (programmable)
Resistance of leads (RTD)	$R_L < 30 \Omega$ (for each line)
Resistance current (RTD)	~250 μ A (Pt100)
Processing errors (at 25°C ambient temperature):	
- basic	- for Pt100 0,2 % of measuring range \pm 1 digit
	- for thermocouple 0,3 % of measuring range \pm 1 digit
- additional for thermocouples	<2 °C (cold ends temperature)
Resolution of measured temperature	0,1 °C or 1 °C
Binary inputs (contact or voltage <24V), standard	bistable, active level: short-circuit or < 0,8V
Communication interface	- PRG programming link (no separation) for programmer AR955 - bitrate 2,4 kb/s, - format 8N1 (8 data bit, 1 bit stop, no parity bit), - MODBUS-RTU protocol (SLAVE)
7-segment LED display with adjustable brightness	4 digits, height 20 mm, red
Power supply (Usup)	- universal, compliant with standards 24V and 230V, dc or ac voltage 15 ÷ 250 Vac, <2VA (alternating voltage, 50/60Hz) 20 ÷ 350 Vdc, <2W (direct voltage)
Rated operating conditions	0 ÷ 50°C, <90 %RH (non-condensing)
Working environment	air and neutral gases
Protection rating	Ip65 front, IP20 of the connections side
Weight	~145g
Electromagnetic compatibility (EMC)	- immunity: acc. to PN-EN 61000-6-2 - emission: acc. to PN-EN 61000-6-4
Safety requirements according to PN-EN 61010-1	- installation category - II - pollution degree - 2 - value of voltage to earth for the power supply circuit, output - 300 V - value of voltage to earth for input circuit - 50 V - insulation resistance >20 M Ω - altitude above the sea level <2000 m