

Technical Data Sheet

pH-RS485-32

Part number 0021.0240.24

24 V DC | 20 mA

The device converts the high-impedance input signal from a pH electrode into a low-impedance RS-485 output signal. The measured value and, if an NTC is connected, the temperature are transmitted via Modbus RTU.



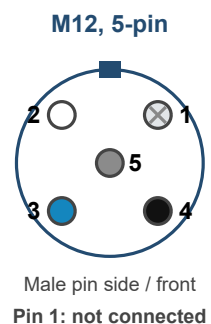
Technical Specifications

Measurement range	0.00...14.00 pH	Power supply	24 V DC $\pm$ 10%
Resolution	0.01 pH	Current consumption	20 mA
Accuracy	$\pm$ 0.02 pH	Interface	RS-485, Modbus RTU
Temperature input	NTC 2 k Ω , B = 3950 K	Communication	9600 baud, 8N1
Temperature range	0...90 °C	Device address	1...247, adjustable on site
Temperature compensation	NTC or controller reference	Hardware address	fixed and unique
NTC not connected	no local temperature value	Calibration data	stored non-volatily
Measurement calculation	0.3 s	pH connection	AS7
Dimensions	Length 200 mm, $\varnothing$ 32 mm	Modbus connection	SAC-5P-M12MS
Cable lengths	1 m each	Housing material	PP
Weight	approx. 250 g	Protection rating	IP69
Ambient temperature	-20...+50 °C	Compliance	CE, RoHS

Behavior without NTC: The temperature channel reports 'not available' (3.0×10^{37}). The reference temperature specified by the controller is used for pH compensation; 25 °C applies until the first reference value is provided.

Pin Assignment SAC-5P-M12MS

Pin	Signal	Wire color	Function
1	-	brown	not connected
2	+24 V DC	white	24 V supply
3	GND	blue	Ground
4	RS-485 A	black	Bus line A
5	RS-485 B	gray	Bus line B



Part 0021.0240.24: 24 V DC via pin 2 (white); pin 1 is not connected.

5-pin M12 connector, male pin side / front, key at the top. The pH electrode is not included.