Technical Data Sheet

pH-RS485-32

Part number 0021.0240.5

5 V DC | 50 mA



Digital pH transmitter with RS-485/Modbus RTU and JUMO digiLine compatibility. It transmits pH, electrode voltage, temperature and status and supports NTC 2 kΩ, Pt1000 or an externally supplied temperature.

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Technical Specifications

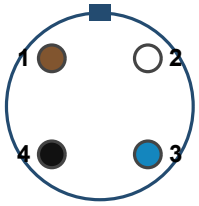
Measurement range	0.00...14.00 pH	**Power supply**	5 V DC ± 10%
Resolution	0.01 pH	**Current consumption**	50 mA
Accuracy	± 0.02 pH	**Interface**	RS-485, Modbus RTU
Temperature input	NTC 2 kΩ, Pt1000 or external	**Communication**	9600...115200 baud, 8N1
Temperature range	0...90 °C	**Device address**	1...247, adjustable on site
Temperature compensation	local sensor or external input	**Hardware address**	fixed and unique
No local sensor	25.0 °C until external input	**Calibration data**	stored non-volatilely
pH filter time	1.0...10.0 s; default 3.0 s	**Electrode check**	10...600 s; switchable
Calibration	zero point, 2-point, temperature	**pH connection**	AS7
Dimensions	Length 200 mm, Ø 32 mm	**Modbus connection**	M12, 4-pin, A-coded
Cable lengths	1 m each	**Housing material**	PP
Weight	approx. 250 g	**Protection rating**	IP69
Ambient temperature	-20...+50 °C	**Compliance**	CE, RoHS

Without a local temperature sensor, internal compensation initially uses 25.0 °C. A valid external value supplied by a JUMO controller or PLC has priority. The internal Modbus response turnaround is fixed at 2 ms.

Pin Assignment M12, 4-pin, A-coded

Pin	Signal	Wire color	Function
1	+5 V DC	brown	Supply
2	RS-485 D1 / B+	white	positive data line
3	GND / Common	blue	supply and bus reference
4	RS-485 D0 / A-	black	negative data line

M12, 4-pin



Male pin side / front

Pin 1: +5 V DC

Part 0021.0240.5: 5 V DC at pin 1. Connect D1/B+ and D0/A- according to the Modbus designation.

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