

pH/ORP transmitter Model 9135



Applications

- Drinking and waste water
- Industrial process control : chemical, petrochemical, pulp and paper, food and beverage, sugar, steel, surface treatment industries
- Pure and ultrapure water analysis : steam generation and electricity production, semiconductors, pharmaceuticals industries

Features

- Universal transmitter (2 high impedance inputs) : accepts combined and simple pH electrode, reference electrodes, antimony electrodes, ORP (redox) electrodes.
- Specific temperature compensation capabilities :
 - following Nernst equation
 - user-programmable coefficient
 - non-linear for ultrapure water
 - non-linear for process water
- Auto diagnostic of the measurement loop :
checking of pH and reference electrode impedance.
- Several communication outputs available : 2 analog outputs, 4 relays, RS485 serial bus
- Integrated controller : frequency or pulse modes, bi-directional proportional function
- Large choice of calibration methods :
 - automatic determination of buffer solutions values
 - manual set-up of process pH values, offset and slope specifications of the electrodes

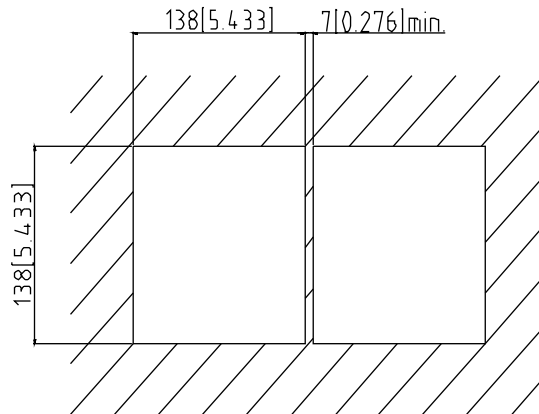
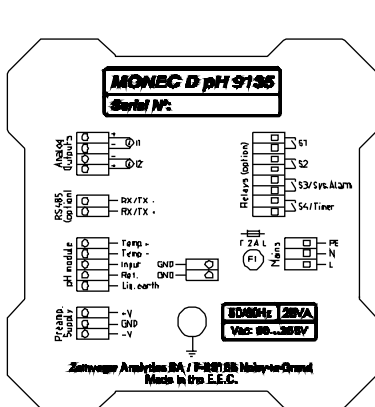
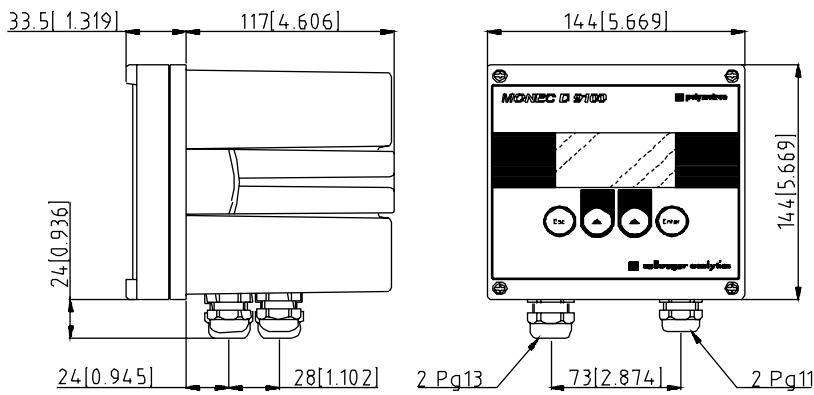
**The pH and redox 9135 transmitter,
a unique answer for all your needs.**

- Mechanical strength and easy mounting
Polyester-coated metallic housing, NEMA 4X (IP65)
Universal mounting bracket suitable for wall, panel or tube installation
- Clear graphic backlit display
 - Multi-lingual display: English, French, German, Italian, Spanish, Dutch
 - Numerous units available : pH, mV
 - simultaneous display of measure and associated temperature
 - display of relay limits and analog outputs
- Independent access levels (with separate entry codes) for calibration, programming and service
- Total galvanic isolation :
 - between sensors and transmitter
 - between micro-processor and power supply, between other circuitry boards and analog outputs
- 2 “smart” analog outputs: 0/4–20 mA
 - linear, bilinear or logarithmic mode
 - simulation of the analog loop signal for testing purposes
 - programmable averaging for fast changing processes
 - bold capability of the 4-20 mA output for calibration, alarm, maintenance purpose
- Data retrieval for quality management
 - date and values of last calibration
 - self-diagnostic data
 - conformity certificate to specifications
- Options available :
 - SPDT relay board (part number 09125=A=4000)
 - relay 1: low or high setpoint, controller mode
 - relay 2: low or high setpoint, controller mode
 - relay 3: low or high setpoint or system alarm
 - relay 4: low or high setpoint or timer output
 relays outputs : 250 V AC, 3 A max., 100 V DC, 0,5 A max.
 - RS485 board: galvanically serial link isolated (part number 09125=A=1100)
 - Detailed test certificate (part number : 09135=T=0000)
- Transmitter

model	part number
220 V standard	09135=A=0000
with relay board	09135=A=0004
with RS485 board	09135=A=0011
with RS485 and relay board	09135=A=0015

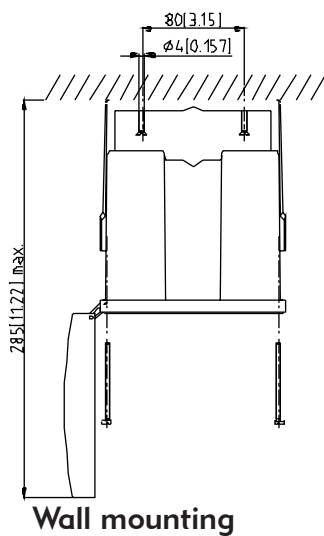
These models also exist in 24 V.

Dimensions in mm [inches] and connections

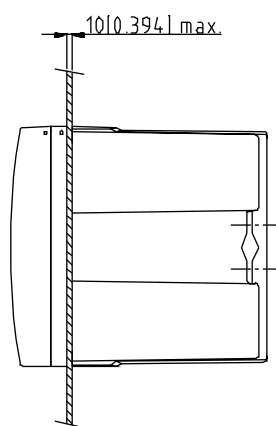


Panel cutout

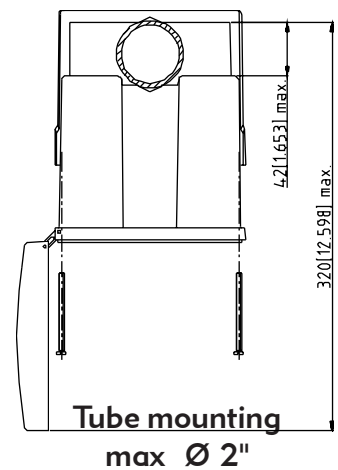
Universal mounting



Wall mounting



Panel mounting



Tube mounting
max $\phi 2''$

polymetron

a Hach UltraAnalytics solution

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Distributor

HUA_TE9135revE.pm6



Specifications

Enclosure

Conforms to	EN 50081-1 & 50082-2 (EMC)
European standards	EN-61010-1 (low voltage)
Protection	NEMA 4X IP65 certified
Material	aluminium and polyester-coated metallic housing stainless steel screws
Cable glands	2 x PG13 and 2 x PG11
Connections	2.5 mm ² terminals with screws demountable terminals for the mains and relays
Net weight	2 kg (4.4 lbs)
Temperature	Stockroom : -20 to 70°C (4 to 158°F) Operating : -20 to 60°C (4 to 140°F)
Display	LCD Display 34 x 67.4 mm (1.3 x 2.7 in) 4 digits: 12 mm x 8 mm (0.5 x 0.3 in) central graphic zone, relays status indication (S1, S2, S3, S4) double display : measure + temperature
Power supply	universal self-adapting : standard version : 100 to 240 VAC, +/- 10% 50/60 Hz low voltage version : 13 to 30 VAC, 50/60 Hz; 18 to 42 VDC consumption: 25 VA
Packaging	the transmitter is shipped in a cardboard box with instruction manual, 4 cable glands, screws for panel mounting and a quality certificate of conformity to specifications

Analysis

■ Specifications

	measuring range	resolution	repeatability
- temperature	-20 ... +200 °C	0,1°C	+/- 0,2 °C
- pH	0...14 pH	0,01 pH / 1mV	+/- 0,02 pH / +/- 1 mV
- redox	-1500... 1500 mV	1 mV	+/- 1 mV

■ Impedance set-up range :

- glass : 5Mohm ... 1 Gohm
- reference : 1 Kohm ... 1 Mohm

■ 2 analog outputs : 0 or 4-20 mA, freely programmable scale

- 1 fo pH or ORP (redox) and 1 for temperature or
- 2 for pH or ORP (redox)

true full galvanic insulation, 16 bits resolution, max load : 900 ohms