

Product information

Sensors and Instrumentation

pH and ORP Converter UNICON®-pH



- Field or head mounting
- Measuring range programmable -1..+15 pH / ±1500 mV
- Temperature compensation via P100/Pt1000 sensor
- Analog output 4..20 mA for pH/ORP and temperature
- 2 alarm outputs, transistor

Characteristics

The pH and ORP converter UNICON-pH is suitable for pH and ORP measurement in food technology, chemistry within pharmaceutical and sewage-water technology. The converter works with all common pH- and ORP electrodes.

Technical data

Power supply
 Supply voltage : 14..30 V DC, 2-wire
 Operating temperature : 0..55 °C
 CE- conformity : EN 55022, IEC 61000-4-3/4/5

Input
pH/ORP
 Output signal : 4..20 mA
 Burden : $RA[\Omega] \leq (U_B - 14 V) \div 0,02 A$
 Measuring range : -1.00..+15.00 pH or -1500..+1500 mV
 R_i : $>10^{12} \Omega$
 Input current : $<10^{-12} A$
 Accuracy : 0.2 % measuring value, ±2 Digit
 Electrode zero point : 7.00 pH
 Slope : 30..80 mV/pH
 ORP setup : ± 200 mV
 Calibration mode : **- 1- or 2-point-calibration**
 buffer selection possible :
 -Schott
 - WTW
 -Ingold (Mettler Toledo)
 -Buffer acc. to DIN 19266
 - or manual buffer input
 - Data entering for zero point and slope
 - ORP setup

Temperature
 Output signal : 4..20 mA
 Burden : $RA[\Omega] \leq (U_B - 14 V) \div 0,02 A$
 Temperature sensor : Pt100 or Pt1000, (2-wire)
 Unit : programmable °C, °F
 Measuring range : -40.0..+160.0 °C (-40.0..+320.0 °F)
 Accuracy : ± 0.1 %, ±1Digit
 Glass impedance : 0..1 GΩ (temperature compensated)

Detection range : 0.001..2 GΩ (non compensated)
 Accuracy : ± 20 %
 Reference imped. : 0..100 kΩ (non compensated)
 Monitoring of the calibration interval : 1..1000 days
Display : LCD-dot matrix, 3,8 mm characters
 2 lines 16 characters each

Alarm outputs
 Transistor : 14..30 V DC<, max.60 mA, with short-circuit-proof

Voltage drop : < 2 V

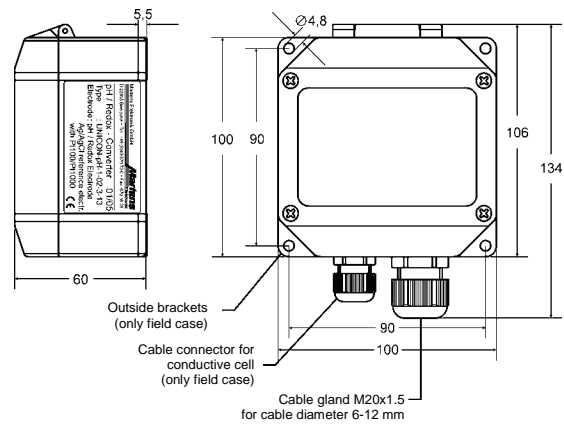
Range switch
 R_i : >10 kΩ
 MB1 active : U = 0..3 V DC
 MB2 active : U = 12..30 V DC

Case : Head-field case
 Material : Polyamide fiber glass
 PA6-GF/GK 15/15, front foil polyester

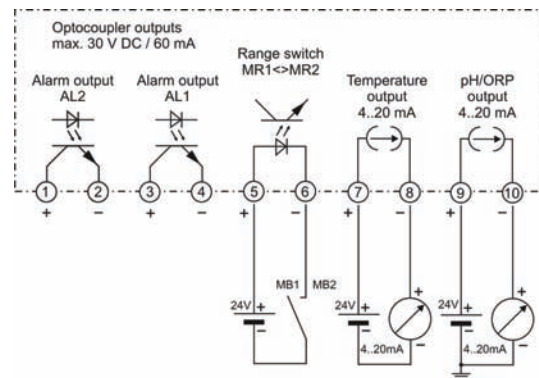
Dimensions : 100 x 100 x 60 mm (WxHxD)
 Weight : max. 360 g
 Connection : screw terminals pressure plate, 2.5 mm² flexible, 4 mm² single wire connection cable

Protection class : IP65, terminals IP20 acc. to BGV A3

Dimensions



Connection diagram



For supplying the converter use terminals 9 and 10 as shown. If the converter is used form monitoring only, terminals 9 and 10 must be connected directly to the supply voltage.

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Product information

Ordering code

UNICON-pH - 1. - 2. - 3. - 4. - 5.

1. Model	
1	output 4..20 mA for pH/ORP, 2 electronic alarm outputs
2	as 1, but 2 nd measuring range for pH/ORP, output 4..20 mA for temperature, monitoring of the glass impedance, reference electrode and the calibration interval
2. Mounting	
01	head mounting, on the electrode
02	field mounting, separate connection cable
3. Reference system	
3	all systems with electrode zero point pH7.00 e.g. silver/silver chloride
4. Temperature compensation	
13	Pt100/Pt1000 sensor via software selectable
5. Options	
00	without option

Accessories see page 18

Connection diagram input UNICON-pH

