

Product information

Analysis pH / ORP

pH and ORP Panelmeter pH9648



- LED-Display 14,2 mm red
- Measuring range programmable -1..+15 pH / ± 1500 mV
- Temperature compensation via P100/Pt1000 sensor
- Analog output 0/4..20 mA or 0/2..10 V for pH/ORP
- Max. 4 alarm outputs relay or transistor

Characteristics

The pH and ORP Panelmeter pH9648 is suitable for pH and ORP measurement in food technology, chemistry within pharmaceutical and sewage-water technology. The pH9648 operates with all common pH- and ORP electrodes. It is recommended to connect the Impedance-Converter pH40 for cable length > 5 m.

Technical data

Power supply

Supply voltage : 230 V AC ± 10 %; 115 V AC ± 10 %;
24 V AC ± 10 % or 24 V DC ± 15 %
Power consumption: max. 3.5 VA, with analog output 5 VA
Operating temperature : -10..+55 °C
CE- conformity : EN 55022, EN 60555,
IEC 61000-4-3/4/5/11/13

Input

pH/ORP

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
pH setup : electrode zero point 4.00..10.00 pH
slope 40.0..70.0 mV/pH
ORP setup : ± 200 mV
Calibration mode : - **1- or 2-point-calibration**
Buffer selection possible:
-Schott
-WTW
-Ingold (Mettler Toledo)
-Puffer acc. to DIN 19266
-or manual buffer input
- **Data** entering for zero point and slope
- **ORP** offset

Temperature

Sensor

: RTD, Pt100 or Pt1000,
(2- or 3-wire connection)
Unit : programmable °C, °F
Measuring range : -40.0..+160.0 °C (-40.0..+320.0 °F)
Accuracy : ± 0.1 %, ± 1 Digit
Transmitter supply : 24 V DC, R_i approx. 150 Ω ,
max. 50 mA (25 mA with 4 relay outputs)

Display

Parameter display : LED 2-digit red, 7 mm
(Parameter - and output indicator)

Output

Relay SPDT : < 250 V AC < 250 VA < 2 A,
< 300 V DC < 50 W < 2 A
Transistor : < 35 V AC/DC, max. 100 mA,
short-circuit-proof
Analog output
active : 0/4..20 mA burden $\leq 500 \Omega$;
0/2..10 V burden > 500 Ω , isolated
automatic output changing
(burden dependent)

Analog output
passive

: 4..20 mA, ext. burden =
 $RA[\Omega] \leq (U_B - 5 \text{ V}) \div 0.02 \text{ A}$;
supply voltage 5..30 V DC

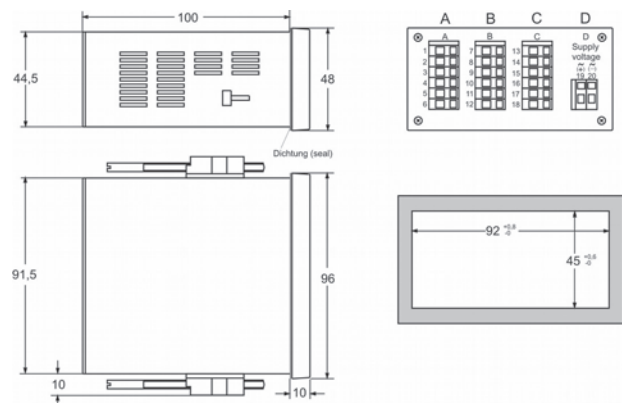
Accuracy

: 0.1 %

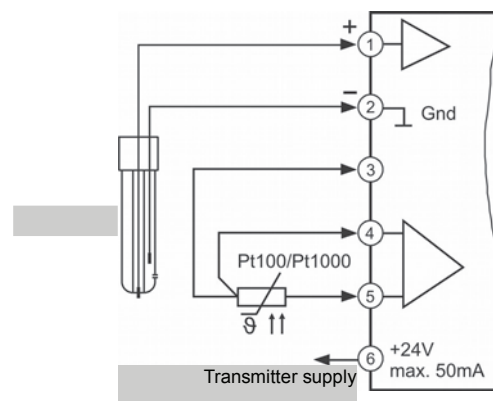
Panel case

Dimensions : DIN 96x48 mm, material PA6-GF; UL94V-0
Weight : max. 390 g
Connection : clamp terminals, 2.5 mm² single wire,
1.5 mm² flex wire, AWG14
Protection class : Front IP65, terminals IP20,
finger save acc. to BGV A3

Dimensions



Connection diagram input



Product information

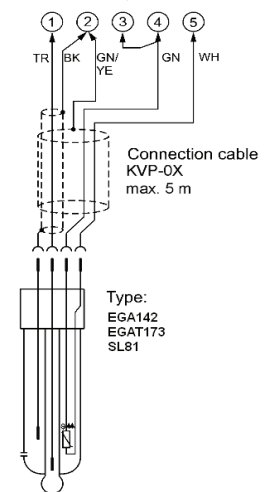
Analysis pH / ORP

Ordering code

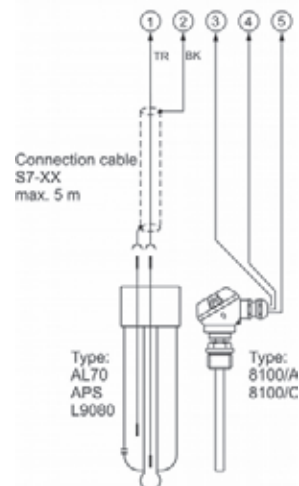
pH9648 - 1. - 2. - 3. - 4. - 5. - 6. - 7.

1. Terminal strip A	
13	input pH / ORP electrode, temperature compensation via Pt100 / Pt1000
2. Terminal strip B	
00	not installed
2R	2 relay outputs
2T	2 electronic outputs
3. Terminal strip C	
00	not installed
2R	2 relay outputs
2T	2 electronic outputs
AO	analog output 0/4..20 mA, 0/2..10 V DC
2A	2 analog outputs 4..20 mA passive
4. Terminal strip B supply voltage	
0	230 V AC $\pm 10\%$ 50-60Hz
1	115 V AC $\pm 10\%$ 50-60Hz
4	24 V AC $\pm 10\%$ 50-60Hz
5	24 V DC $\pm 15\%$
5. Options	
00	without option
6. Unit	appears in the unit field
7. Additional text	above the display (3x90 mm HxW)

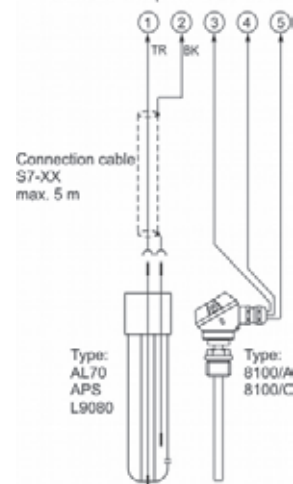
pH-electrode
with ext. temperature sensor



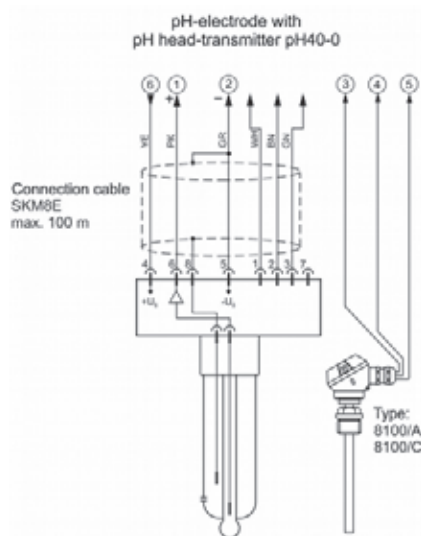
pH-electrode
with ext. temperature sensor



ORP-electrode
with ext. temperature sensor



Connection examples pH9648



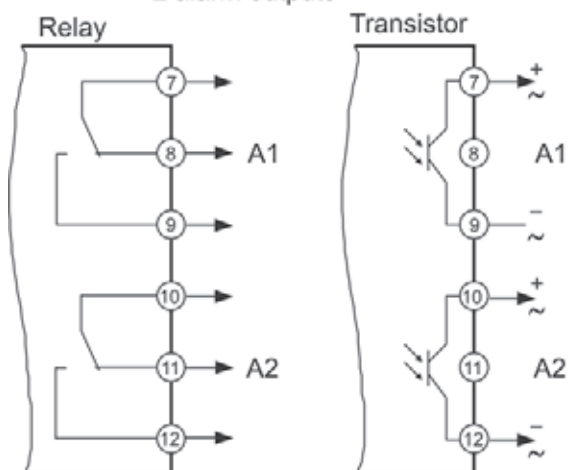
Connection Diagrams X9648, Terminals B-D

Terminal strips B, C, D

Terminal strip A belongs to each article.

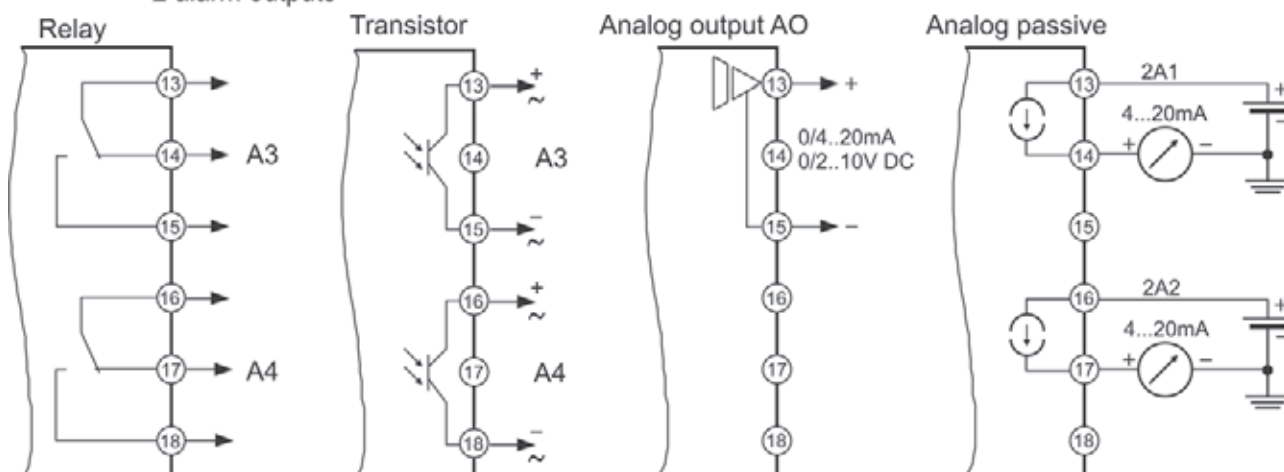
Terminal strip B (varies with versions)

2 alarm outputs



Terminal strip C (varies with versions)

2 alarm outputs



Terminal strip D supply voltage (varies with version)

