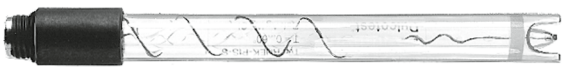
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pH One-Bar Measuring Chain FY96PHEK



Applications:
manual measurements e.g. swimming pools, drinking water ...

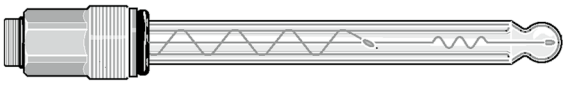
Technical Data

pH range:	1 … 12
Operating range:	0 … 60 °C
Operating pressure:	unpressurised
Conductivity:	> 150 µS / cm
Diaphragm type:	ceramic

Reference (Electrolyte):	KCl containing gel
Shaft length:	120 ±3 mm
Shaft diameter:	12 mm (polycarbon)
Electrode head:	plug head SN6

Type	Order no.
pH-one-bar measuring chain pH 1 … 12, 0 … 60 °C for unpressurised operating	**FY96PHEK**

pH One-Bar Measuring Chain FY96PHER



Applications:
Generally for water with solid content (turbid water), water with low conductivity, e.g. from reverse osmosis. Municipal and industrial wastewater, cooling water, industrial water, water in chemistry and paper production.

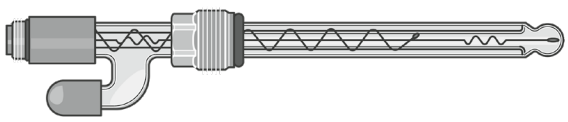
Technical Data

pH range:	1 … 12
Operating range:	0 … 80 °C
max. pressure:	6 bar
Conductivity:	> 50 µS / cm
Diaphragm type:	PTFE ring diaphragm

Reference (Electrolyte):	KCl-containing polymer
Shaft diameter:	12 mm (glass)
Screw connection:	thread PG13.5
Shaft length:	120 ±3 mm
Electrode head:	plug head SN6

Type	Order no.
pH-one-bar measuring chain pH 1 ... 12; 0 … 80 °C, up to 6 bar	**FY96PHER**

pH One-Bar Measuring Chain FY96PHEN2



Applications:
only for clear water, waste water, cooling water, chemically contaminated water.

Technical Data

pH range:	1 … 12
Operating range:	0 … 80 °C
Operating pressure:	unpressurised
Conductivity:	> 150 µS / cm
Diaphragm type:	ceramic

Reference (Electrolyte):	KCl solution, refillable
Installation length:	120 ±3 mm
Shaft diameter:	12 mm (material: glass)
Screw connection:	thread PG13.5
Electrode head:	plug head SN6

Type	Order no.
pH-one-bar measuring chain pH 1 … 12, 0 … 80 °C for unpressurised operating	**FY96PHEN2**

pH Insertion Electrode FY96PHMEE1



Applications:

Hand measurements, for piercing solid and semi-solid samples such as meat, cheese, fruit, vegetables.

Technical Data

Operating range:	pH 1 … 11 / 0 … 80 °C
max. pressure:	unpressurized operation
Diaphragm / Reference:	no diaphragm / polymer
Piercing tip: Ø approx. 6 mm, Penetration depth approx. 25 mm	

Shaft:	Ø 8 / 12 mm, length approx. 90 mm (incl. tip), material glass
Electrical connection:	plug head S7

Type	Order no.
pH Insertion Electrode, for food	**FY96PHMEE1**

pH Insertion Electrode FY96PHMEE2



Applications:

Stable insertion electrode, for food such as meat, sausage, cheese/butter, fruits.

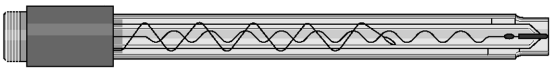
Technical Data

Operating range:	pH 2 … 11 / 0 … 80 °C
max. pressure:	unpressurized operation
Diaphragm / Reference:	no diaphragm / polymer
Piercing tip: Ø approx. 6 mm, Penetration depth approx. 25 mm	

Shaft:	Ø 8 / 16 mm, length approx. 100 mm (incl. tip), material glass, with plastic cover of PBT.
Electrical connection:	plug head S7

Type	Order no.
pH Insertion Electrode, for food	**FY96PHMEE2**

Redox-One-Bar Measuring Chain FY96RXEK



Applications:

manual measurements e.g. swimming pools, drinking water ....

Technical Data

Operating temperature:	0 … 60 °C
Operating pressure:	unpressurised
Conductivity:	> 150 µS / cm
Diaphragm / Electrolyte:	ceramic / KCl containing gel

Metal electrode:	platinum
Shaft length:	125 ±3 mm
Shaft diameter:	12 mm (material: polycarbonate)
Electrode head:	plug head SN6

Type	Order no.
Redox-one-bar measuring chain 0 … 60 °C for unpressurised operating	**FY96RXEK**

Accessories for pH-One-Bar Meas. Chains and Redox-One-Bar Meas. Chain

	Order no.
Buffer solution pH 4.0 50 ml	**ZB98PHPL4**
Buffer solution pH 7.0 50 ml	**ZB98PHPL7**
Buffer solution pH 10.0 50 ml	**ZB98PHPL10**

	Order no.
Redox buffer solution 220 mV	**ZB98RXPL2**
KCl solution, 3-molar, 50 ml for refilling and storage	**ZB98PHNL**

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ALMEMO® connecting cable for pH and redox probes



Transducer cable with various electrodes

Applications:

Transducer cables are available for all popular electrodes with a coaxial connector. To avoid the measuring signal being corrupted by the measuring instrument itself an extremely high-impedance amplifier is integrated in the ALMEMO® connector on the connecting cable.

Technical Data

Transducer	High-impedance measuring amplifier (>500 Gohm), integrated in the ALMEMO® connector	Electrode terminal	For plug-on head S7/SN6 or SMEK (see variants)

Type	Order no.
ALMEMO® connecting cable with transducer (ALMEMO® connector, spray-coated)	
For probes with plug-on head S7/SN6 (coaxial connector, screw-fit):	
Programming for pH probe	
Cable length 2 meters	**ZA9610AKY4**
Cable length 5 meters	**ZA9610AKY4L05**
Programming for redox probes	
Cable length 2 meters	**ZA9610AKY5**
Cable length 5 meters	**ZA9610AKY5L05**
Programming for pH or redox probe (1 probe connectable at a time)	
Cable length 2 meters	**ZA9610AKY6**
Cable length 5 meters	**ZA9610AKY6L05**



Type	Order no.
ALMEMO® connecting cable with transducer	
For probes with SMEK plug-on head	
Cable length 2 meters	
Programming for pH probe with integrated temperature sensor NTC (30 kohm at 25 °C), linearization saved in ALMEMO® connector (only for current V6 ALMEMO® devices)	**ZA9640AKY8**
Programming for pH probe	**ZA9610AKY8**
Programming for redox probe	**ZA9610AKY9**

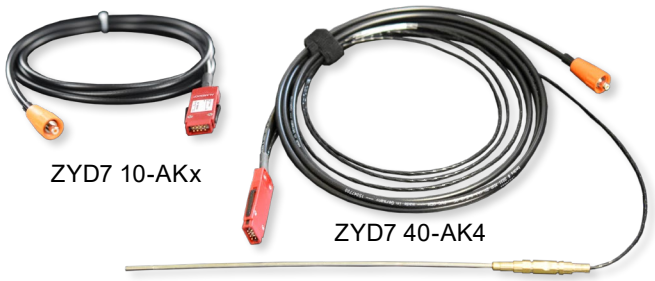
NTC temperature sensor for automatic temperature compensation when measuring pH



Connector programming designation *T
for all current ALMEMO® V6 and V7 devices.

Type	Order no.
Stainless-steel sheathed sensor: Diameter 3.0 mm, length 250 mm, Hexagonal cable sleeve with 1.5 meters PVC cable and ALMEMO® connector	**FNA30L0250T**
Safety hose made from PTFE (for aggressive media) Hermetically sealed on one side, inside diameter 3.1 mm, outside diameter 5.1 mm, length 500 mm	**ZT9000TS7**

Digital connection cable for pH and redox probes ZYD7 10-AKx and ZYD7 40-AKx, with ALMEMO® D7 plug



- **Digital ALMEMO® D7 connection cable.**
- **Galvanically isolated from the measuring instrument.**
- **Temperature dependence of the probe can be compensated manually or automatically.**
- **Comparison of the pH probe at three points.**

Technical data and functions

Digital connection cable.
The voltage of the probe is measured by an A/D converter integrated into the ALMEMO® D7 plug. Extension cables and the measuring device itself have no influence on the measurement accuracy.

Galvanic Isolation to the ALMEMO® V7 measuring device.
It is possible to operate several pH probes simultaneously in the same sample solution on one measuring device without influencing each other.

Compensation of the temperature dependence of the probe.
To compensate the temperature dependence of the probe, the temperature of the sample solution can be entered manually. The connection cable ZYD7 40-Akx additionally features a temperature sensor. As a result, the measured temperature value will be used for automatic compensation.

Comparison of the pH probe possible at three points.
The comparison will be saved at pH 7 as well as at one point in the acid range and at one point in the alkaline range. The values of the reference solutions can be specified as set points.

Technical data

ALMEMO® D7 plug	
Measuring ranges:	
pH value	0.00 to 14.00 pH
Redox potential	-1100.0 to +1100.0 mV
Temperature NTC	-50.00 to +125.00 °C
A/D converter:	Delta Sigma
Accuracy:	
pH/redox	±0.02 % of measured value ±2 digits
temperature NTC	±0.05 K at -50 to +100 °C
Nominal temperature:	23 °C ±2 K
Temperature drift:	max. 0.004 %/K (40 ppm)
Operative range:	-10 to +60 °C / 10 to 90 % RH (non-condensing)
Refresh rate:	0.8 s
Supply voltage:	from 6 V up, from the ALMEMO® measuring device
Current consumption:	approx. 8 mA

Temperature sensor NTC	
Design:	FN030L0250 with OPK03L0020
Accuracy:	see chapter 07
Measuring tip:	stainless steel sheathed line, d = 3.0 mm, NL = 250 mm
Cable sleeve:	Brass, hexagonal, L = 65 mm, width across corners = 9 mm
Cable:	2 m, FEP/FEP isolated, permanently mounted in the ALMEMO® D7 plug
Operating temperature:	-20 to 100 °C

Accessories

	Order no.
ALMEMO® D7 extension cable up to 100 m, see chapter 06	
Safety hose made from PTFE (for aggressive media) for temperature sensors: hermetically sealed on one side, inside diameter 3.0 mm, outside diameter 4.0 mm, length 700 mm	**ZT9000TS7**

Type

	Order no.
Digital ALMEMO® D7 connection cable for probes with plug-on head S7/SN6 (coaxial connector, screw-fit)	
Programming for pH probe	
Cable length = 2 m	**ZYD710AK4**
Cable length = 5 m	**ZYD710AK4L05**
Programming for redox probe	
Cable length = 2 m	**ZYD710AK5**
Cable length = 5 m	**ZYD710AK5L05**
Additionally with permanently connected temperature sensor NTC, Programming for pH probe and temperature sensor	
Cable length = 2 m	**ZYD740AK4**

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