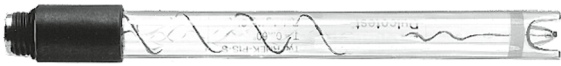


15 Water analysis

pH One-Bar Measuring Chain FY96PHEK



Applications:

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

Technical Data

pH range:	1 ... 12	Reference (Electrolyt):	KCl containing gel
Operating range	0 ... 60°C	Shaft length:	120 ±3mm
Operating pressure:	unpressurised	Shaft diameter:	12mm (polycarbon)
Conductivity:	> 150 µS / cm	Electrode head:	plug head SN6
Diaphragm type:	ceramic		

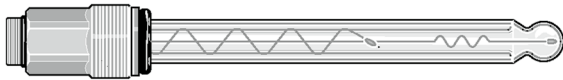
Type

pH-one-bar measuring chain pH 1 ... 12, 0 ... 60°C for unpressurised operating

Order no.

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	Reference (Electrolyt):	KCl-containing polymer)
Operating range:	0 ... 80°C	Shaft diameter:	12mm (glass)
max. pressure:	6 bar	Screw connection	thread PG13.5
Conductivity:	> 50 µS / cm	Shaft length:	120 ±3mm
Diaphragm type:	PTFE ring diaphragm	Electrode head:	plug head SN6

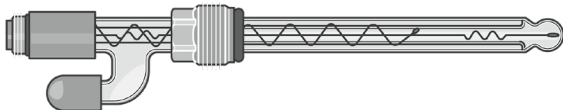
Type

pH-one-bar measuring chain pH 1 ... 12; 0 ... 80°C, up to 6 bar

Order no.

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	Reference (Electrolyt):	KCl solution, refillable)
Operating range	0 ... 80°C	Installation length:	120 ±3mm
Operating pressure:	unpressurised	Shaft diameter:	12mm (material: glass)
Conductivity:	> 150 µS / cm,	Screw connection	thread PG13.5
Diaphragm type:	ceramic	Electrode head:	plug head SN6

Type

pH-one-bar measuring chain pH 1 ... 12, 0 ... 80°C for unpressurised operating

Order no.

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	Shaft:	Ø 8 / 12 mm, length approx. 90 mm (incl. tip), material glass
max. pressure:	unpressurized operation	Electrical connection:	plug head S7
Diaphragm / Reference:	no diaphragm / polymer		
Piercing tip:	Ø approx. 6 mm, Penetration depth approx. 25 mm		

Type

pH Insertion Electrode, for food

Order no.

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	Shaft:	Ø 8 / 16 mm, length approx. 100 mm (incl. tip), material glass, with plastic cover of PBT.
max. pressure:	unpressurized operation	Electrical connection:	plug head S7
Diaphragm / Reference:	no diaphragm / polymer		
Piercing tip:	Ø approx. 6 mm, Penetration depth approx. 25 mm		

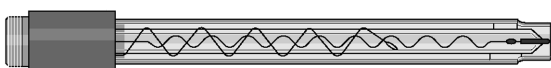
Type

pH Insertion Electrode, für for food

Order no.

FY96PHMEE2

Redox-One-Bar Measuring Chain FY96RXEK



Applications:

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

Technical Data

Operating temperature	0 ... 60°C	Metal electrode :	platinum
Operating pressure:	unpressurised	Shaft length:	125 ±3mm
Conductivity:	> 150 µS / cm	Shaft diameter:	12 mm (material: polycarbonate)
Diaphragm / Electrolyt	ceramic / KCl containing gel	Electrode head:	plug head SN6

Type

Redox-one-bar measuring chain 0 ... 60°C for unpressurised operating

Order no.

FY96RXEK

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

Order no.

Buffer solution pH 4.0 50 ml	Order no. ZB98PHPL4	Redox buffer solution 220 mV	Order no. ZB98RXPL2
Buffer solution pH 7.0 50 ml	ZB98PHPL7	KCl solution, 3-molar, 50ml	
Buffer solution pH 10.0 50 ml	ZB98PHPL10	for refilling and storage	ZB98PHNL

Water analysis

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)
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Type

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

Cable length 5 meters

Programming for redox probes

Cable length 2 meters

Cable length 5 meters

Programming for pH or redox probe (1 probe connectable at a time)

Cable length 2 meters

Cable length 5 meters

Order no.

ZA9610AKY4
ZA9610AKY4L05

ZA9610AKY5
ZA9610AKY5L05

ZA9610AKY6
ZA9610AKY6L05



Type

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)

Programming for pH probe

Programming for redox probe

Order no.

ZA9640AKY8
ZA9610AKY8
ZA9610AKY9

NTC temperature sensor for automatic temperature compensation when measuring pH



Connector programming designation *T for ALMEMO® 2490 and 2590-2/-3S/-4S and (with effect from 07/2006) for ALMEMO® 2690/ 2890/ 5690/ 8590/ 8690

Type

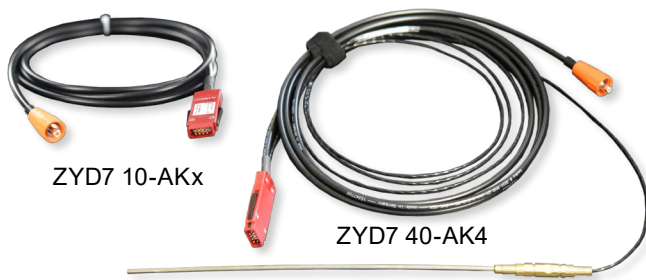
Stainless-steel sheathed sensor (see page 148) Diameter 3.0 mm, length 250 mm, Hexagonal cable sleeve with 1.5 meters PVC cable and ALMEMO® connector

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

Order no.

FNA30L0250T
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		Supply voltage:	from 6 V up, from the ALMEMO® measuring device
Measuring ranges:		Current consumption:	approx. 8 mA
pH value	0.00 to 14.00 pH	Temperature sensor NTC	
Redox potential	-1100.0 to +1100.0 mV	Design:	FN030L0250 with OPK03L0020
Temperature NTC	-50.00 to +125.00 °C	Accuracy:	see chapter 07
A/D converter	Delta Sigma	Measuring tip:	stainless steel sheathed line, d = 3.0 mm, NL = 250 mm
Accuracy:		Cable sleeve:	Brass, hexagonal, L = 65 mm, width across corners = 9 mm
pH/redox	±0,02 % of measured value ±2 digits	Cable:	2 m, FEP/FEP isolated, permanently mounted in the ALMEMO® D7 plug
temperature NTC	±0,05 K at -50 to +100 °C	Operating temperature:	-20 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		

Accessories

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

Order no.

ZT9000TS7

Type

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

Cable length = 5 m

Programming for redox probe

Cable length = 2 m

Cable length = 5 m

Additionally with permanently connected temperature sensor NTC,

Programming for pH probe and temperature sensor

Cable length = 2 m

Order no.

ZYD710AK4
ZYD710AK4L05

ZYD710AK5
ZYD710AK5L05

ZYD740AK4