

**Portamess®  
910 Oxy Series**

# Our blue period.



## New

Reliable portable  
measurement of  
dissolved oxygen –  
precise and  
convenient

**Available from  
3rd quarter 2002**

**Knick** ➤

# Portamess® 910 Oxy Series



## Eye-catching enclosure.

Winner of the German product design award: The Knick Portamess® enclosure. Ergonomic, resistant to chemicals, robust, and water-tight. A fold-out hook serves either as a hanger or stand-up support. The hinged cover with flexible lamellar joint provides quick-reference instructions. Also, the large, easy-to-read LC display, with its clear icons, guarantees easy operation.



bundespreis  
produkt design

## Sensitive sensors.

The SE 300 and 301 sensors are specially designed for the Portamess® 910 Oxy Series. They require no flow and provide highly accurate values. Thanks to the continuous polarization of the sensors, they are always ready to use. The quiver integrated in the Portamess® meters is equipped with a moisturizing fleece and offers perfect conditions for storing the sensors. At the same time, the quiver can be used for calibration.

SE 300 oxygen sensor



SE 301 oxygen sensor

with ZU 0553 immersion weight



## Prominent properties.

The Models 911 and 913 Oxy for portable measurement of dissolved oxygen offer the advantages of the well-proven Portamess® Series, from the comfortable equipment to icon-guided operation, from the automatic self-test over the calibration timer to the automatic switch-off. And they offer even more: a memory for up to 200 measured values, a new AutoRead function for reproducible measurements with drift check, the ability to enter the salt content for correcting the solubility function and more.



## Fabulous features:

- Adjustable carrying strap; fixed directly to the meter.
- Transparent, removable sensor quiver with moisturizing fleece
- Rugged, water-tight terminals; gold-plated
- Around 1000 operating hours on three AA batteries
- Clearly arranged, large LC display (67 x 35 mm)
- Clear icons for operator guidance
- Simultaneous display of dissolved oxygen and temperature
- Display of oxygen saturation or concentration
- Temperature display switchable between °C and °F
- Automatic switch-off (polarization voltage of sensor is not switched off)
- Calibration timer
- Clock function, switchable to US time and date format
- Storage of 200 measured values with time, date, and AutoRead index
- Datalogger for automatic recording of measured values
- Bidirectional serial interface with universal interface cable for printer and PC, conforming to GLP
- Battery indicator
- Switch-on test with display check
- Precise measurement with flow-free SE 300 and SE 301 oxygen sensors; stirrer not required
- Automatic air calibration (in integrated calibration chamber) with one-button operation
- Automatic correction of temperature and pressure influences
- Continuous polarization of sensor for immediate readiness
- SE 300 and SE 301 sensors – durable and maintenance-free
- Lab/field measurements with SE 300 sensor – immersion measurements with SE 301
- Comparative measurements or performance checks of process sensors by means of adapter cable.
- AutoRead function for reproducible measurements with drift control
- Ability to enter the salt content for correcting the solubility function
- Zero calibration not required for Knick SE 300/301 sensors, possible for sensors with offset
- Ergonomic enclosure, protected against heavy seas (IP 66 protection)
- Hinged display and keypad cover also serves as stand-up base
- Fold-out hook





# Portable meters from Knick – also for dissolved oxygen

## Specifications



### Portamess® 911 Oxy

Saturation	0.0 to 600.0 % (0° C to 55° C), meas. error: 0.5 % meas. val. + 0.2 % saturation	
Concentration	0.00 to 60.00 mg/l (0° C to 55° C), meas. error: 0.5 % meas. val. + 0.05 mg/l	
Measurement range	Measuring current 0 to 1000 nA	
Barometric pressure range	700 to 1080 hPa	
Salt correction	0.00 to 45.00 g/kg configurable, solubility function as per EN 25814	
Sensor standardization [cal]	Automatic in water-saturated air in the quiver, zero calibration possible	
Calibration range	Zero $\pm 2$ nA, Slope 25 to 130 nA	
Calibration timer	0 to 14 days, default: 6 days	
Pressure correction	Automatic using integrated pressure sensor	
Temperature input	NTC 22 k $\Omega$ integrated in sensor	
Range	0.0 to + 55.0 °C / 32 to +131 °F	
Resolution	0.1 °C / 1 °F	
Measurement error	< 0.5 K	
Temperature compensation	Automatic with NTC	
Meter self-test	Automatic at power-on	
Data retention	Parameters and calibration data > 10 years (EEPROM)	
Ambient conditions	Operating / ambient temp	–10 to +55 °C
	Transport and storage temp	–10 to +70 °C
Emitted interference	EN 61326	
Immunity to interference	EN 61326	
Enclosure	Material: PA, IP 66 protection, with integrated sensor quiver	
Display	LC display 67 x 35 mm, character height 15 mm; measurement display: mg/l; %, °C	
Weight	Approx. 560 g with batteries	
Current supply	3 AA batteries, operation time approx. 1000 h automatic switch-off after 1 h or 12 h, selectable	
Dimensions	133 x 160 x 30 mm (W x H x D)	



**Warranty**

Defects occurring within 3 years from delivery date shall be remedied free of charge at our works (carriage and insurance paid by sender).  
Sensors and accessories: 1 year

**Specifications****Portamess® 913 Oxy**

as for Portamess® 911 Oxy;  
plus:

Time function	Integrated real-time clock with date
Data memory	200 memory locations: mg/l or %, temperature, time, date
Remote interface	RS 232 C serial, bidirectional, asynchronous, 600 to 9600 Bauds
Datalogger*	200 data records, stored in the meter with time, date, and AutoRead index, unlimited number of records when connected to PC, recording: manual, interval-controlled 5 sec to 60 min or event-controlled 0.01 to 19.99 mg/l
Interface cable	Length 1 m, universal plug, either for PC or printer connection
Transfer software Paraly® SW 109	Recording of measured data, memory contents, and device records in tabular form, possibility to enter notes for each measured value (e.g. tag no.), data transfer to other Windows applications (e.g. Excel), datalogger function via PC

\*) configurable

**SE 300/SE 301 dissolved oxygen sensors**

Sensitivity	40 to 80 nA at 25 °C in air
Polarization voltage	-670 +/- 50 mV
Stabilization time	Typ. 15 min, max. 1 h
Temperature sensor	NTC 22 kΩ
Temperature range	0 to 60 °C
Shaft diameter	12 mm
Thread (SE 301)	Pg 13.5
Process-wetted materials (when mounted):	1.4435 stainless steel, PEEK, silicone, NB
Regeneration	Not required
Flow dependence	< 5 % at 25 °C
Residual current	< 0.5 % of current in air
Cable	Fixed cable with SMEK plug, length 1.5 m (SE 300), 5 m (SE 301)

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**Knick. Always better.**

**Product line**



**The meters**

		Order No.
Portamess® 911 Oxy	Meter incl. batteries, sensor quiver and carrying strap; without sensor	911 Oxy
Portamess® 913 Oxy	Meter equipped like Model 911 Oxy; plus clock, date, data memory, datalogger, and interface including Paraly® transfer software and interface cable, without sensor	913 Oxy

**The sensors**

SE 300 oxygen sensor	With 1.5 m cable	SE 300
SE 301 oxygen sensor	Immersion sensor with 5 m cable (without immersion weight)	SE 301
Protection sleeve/ immersion weight	For SE 301 immersion sensor	ZU 0553
Oxy Set A	For lab and field measurements, consisting of: SE 300 oxygen sensor, rugged field case, replacement quiver and fleece (5 units)	ZU 0556
Oxy Set B	For immersion measurements, consisting of: SE 301 oxygen sensor, protection sleeve/immersion weight, rugged field case, replacement quiver and fleece (5 units)	ZU 0557

**Further accessories**

Flow-through fitting	For SE 300 sensor, glass, with hose connections	ZU 0558
Sensor quiver	5 units (with calibration chamber and moisturizing fleece)	ZU 0331
Rugged field case	For meter and sensor	ZU 0277
Printer	Matrix printer with serial RS 232 interface; for standard paper, width 57.5 mm	ZU 0244
Printer paper	5 rolls	ZU 0249
Printer ribbon	5 ribbons	ZU 0250
Connecting cable	For connection of process sensors with 4-pole cap to Portamess® 911/913	ZU 0554
Connecting cable	For connection of process sensors with VP cap to Portamess® 911/913	ZU 0555