





## Lutz-Jesco sensor technology



# The subtle difference





Lutz-Jesco sensors are characterised by their high quality, a robust build and good price-performance ratio. Intensive research and many years of practical experience mean we have the skills to successfully deal with the measurement tasks you set us. We provide all measuring procedures for chlorine measurement, enabling you to select the procedure which matches your needs.

## Measuring cell for the measurement of disinfection in water

				
Sensor type	CS120 - Pt/Cu	CS120 - Pt/Ag	DMZ3	DMZ3.1
Measuring unit	All oxidising ions	All oxidising ions	All oxidising ions	All oxidising ions
Part number	23722968	23732271	44302002	44302006
Price [EUR]	727.70	913.40	351.90	351.90
Applications	Swimming pool water, Drinking water, Process water	Swimming pool water, Drinking water, Process water, Saline water		
Measuring range	0 – 20 mg/l Cl <sub>2</sub>	0 – 20 mg/l Cl <sub>2</sub>	0 – 10 mg/l Cl <sub>2</sub>	0 – 15 mg/l Cl <sub>2</sub>
Transfer/slope	20 – 30 µA / mg/l			
Electrolyte	Sample water			
Electrical connection	Free wire end			N attachment head
Hydraulic connections	G 5/8		hose 6/8 mm	
Pressure range	0 – 6 bar			
Flow rate	40 – 50 l/h		30 l/h	
Measuring principle	Amperometric open 2-electrode measuring cell		Amperometric 3-electrode measuring cell with potentiostatic control	
Can be used for water sampling station:				
EASYPRO 1	•	•	-	•
EASYPRO 2	-	-	-	•
EASYPRO 3	-	-	-	•
EASYPRO 4	-	-	-	•
EASYPRO MB-C	-	-	-	•
EASYPRO ME-C	-	-	-	-
EASYPRO MC-C	-	-	-	•
EASYPRO MD-C	-	-	-	-
EASYPRO MP-C	-	-	-	•
EASYPRO SMART CP	•	•	-	-
EASYPRO SMART RP	-	-	-	-
EASYPRO COMPACT	-	-	-	•

# Overview Sensors Disinfectants






## Measuring cell for the measurement of disinfection in water

				
Sensor type	CI 4.2	CI 4.2	CI 4.2	CI 4.2
Measuring unit	free chlorine	free chlorine	free chlorine	free chlorine
Part number	23700613	23700608	23700614	23700616
Price [EUR]	1,321.30	1,321.30	1,321.30	973.30
Applications	Swimming pool water, Drinking water, Process water	Swimming pool water, Drinking water, Process water, Saline water	Swimming pool water, Drinking water	
Measuring range	0 – 0.5 mg/l Cl <sub>2</sub>	0 – 2 mg/l Cl <sub>2</sub>	0 – 5 mg/l Cl <sub>2</sub>	0 – 10 mg/l Cl <sub>2</sub>
Transfer/slope	4 – 20 mA			
Electrolyte	Diaphragm cap with electrolyte			
Connection	Free wire end			
Pressure range	0 – 0.5 bar			
Flow rate	30 l/h			
Measuring principle	amperometric diaphragm covered cell measuring cell			
Can be used for water sampling station:				
EASYPRO 1	•	•	•	•
EASYPRO 2	•	•	•	•
EASYPRO 3	•	•	•	•
EASYPRO 4	•	•	•	•
EASYPRO MB-C	-	-	-	-
EASYPRO ME-C	-	-	-	-
EASYPRO MC-C	-	-	-	-
EASYPRO MD-C	•	•	•	•
EASYPRO MP-C	-	-	-	-
EASYPRO SMART CP	-	-	-	-
EASYPRO SMART RP	-	-	-	-
EASYPRO COMPACT	-	-	-	-

The products supplied may be different to the pictures shown.

# The subtle difference





## Measuring cell for the measurement of disinfection in water

					
Sensor type	CD 4.2	CD 4.2	GCM	GCM	GCM
Measuring unit	Chlorine dioxide		Total chlorine		
Part number	23700604	23700605	23700751	23700752	23700753
Price [EUR]	1,617.80	1,617.80	1,892.40	1,867.80	1,867.80
Applications	Drinking water, Process water	Drinking water, Rinsing water, Process water	Swimming pool water, Drinking water, Process water		
Measuring range	0 – 0,5 mg/l ClO <sub>2</sub>	0 – 2 mg/l ClO <sub>2</sub>	0 – 2 mg/l Cl <sub>total</sub>	0 – 5 mg/l Cl <sub>total</sub>	0 – 10 mg/l Cl <sub>total</sub>
Transfer/slope	4 – 20 mA				
Electrolyte	Diaphragm cap with electrolyte				
Connection	Free wire end				
Pressure range	0 – 0.5 bar		0 – 1 bar		
Flow rate	30 l/h				
Measuring principle	amperometric diaphragm covered cell measuring cell				
Can be used for water sampling station:					
EASYPRO 1	•	•	•	•	•
EASYPRO 2	•	•	•	•	•
EASYPRO 3	•	•	•	•	•
EASYPRO 4	•	•	•	•	•
EASYPRO MB-C	-	-	-	-	-
EASYPRO ME-C	-	-	-	-	-
EASYPRO MC-C	-	-	-	-	-
EASYPRO MD-C	-	-	-	-	-
EASYPRO MP-C	-	-	•	•	•
EASYPRO SMART CP	-	-	-	-	-
EASYPRO SMART RP	-	-	-	-	-
EASYPRO COMPACT	-	-	-	-	-

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# Overview Sensors Disinfectants

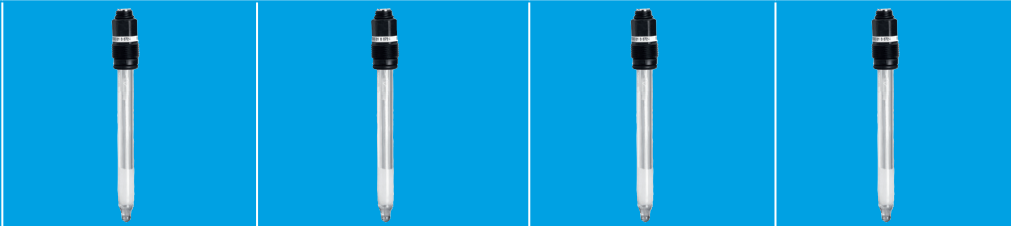
## Measuring cell for the measurement of disinfection in water

				
Sensor type	WP7	BR 1	BR 1	MST 1
Measuring unit	Hydrogen peroxide	Free bromine	Free bromine	Chlorite
Part number	23700615	23700618	23700619	23700625
Price [EUR]	2,021.60	1,655.30	1,655.30	913.40
Applications	Process water			Swimming pool water, Drinking water, Process water
Measuring range	0.5 – 200 mg/l	0 – 2 mg/l	0 – 5 mg/l	0.5 – 2 mg/l
Transfer/slope	4 – 20 mA			
Electrolyte	Diaphragm cap with electrolyte			
Connection	Free wire end			
Pressure range	0 – 0.5 bar			
Flow rate	30 l/h			
Measuring principle	membrane covered cell			
Can be used for water sampling station:				
EASYPRO 1	•	•	•	•
EASYPRO 2	•	•	•	•
EASYPRO 3	•	•	•	•
EASYPRO 4	•	•	•	•
EASYPRO MB-C	-	-	-	-
EASYPRO ME-C	-	-	-	-
EASYPRO MC-C	-	-	-	-
EASYPRO MD-C	-	-	-	-
EASYPRO MP-C	-	-	-	-
EASYPRO SMART CP	-	-	-	-
EASYPRO SMART RP	-	-	-	-
EASYPRO COMPACT	-	-	-	-

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# Overview Sensors pH measurement





## Measuring cell for measuring pH value

				
Sensor type	PE110			
Part number	44101001	44101002	44101003	44101004
Price [EUR]	326.40	330.30	456.60	80.90
Applications	Drinking water, Process water light soiling, Warm water	Drinking water, Process water heavy soiling, Warm water	Boiler water, Drinking water	Swimming pool water, Drinking water
Measuring range	0 – 14 pH			2 – 12 pH
Transfer/slope	52 – 59 mV / pH value			
Electrolyte	Potassium chloride (gel)		Potassium chloride (fluid)	Potassium chloride (gel)
Connection	N plug head with screw-in thread PG 13.5			
Pressure range	0 – 6 bar		max. 6 bar with pressure cap	0 – 6 bar
Temperature range	0 – 80 °C	0 – 130 °C	0 – 60 °C	0 – 50 °C
Installation lengths	120 mm		180 mm	120 mm
Shaft diameter	approx. 12 mm			
Measuring principle	pH single-rod measuring cell			
Can be used for water sampling station:				
EASYPRO 1	•	•	•	•
EASYPRO 2	•	•	•	•
EASYPRO 3	•	•	•	•
EASYPRO 4	•	•	•	•
EASYPRO MB-C	•	-	-	•
EASYPRO ME-C	•	-	-	•
EASYPRO MC-C	•	-	-	•
EASYPRO MD-C	•	-	-	•
EASYPRO MP-C	•	-	-	•
EASYPRO SMART CP	•	-	-	•
EASYPRO SMART RP	•	-	-	•
EASYPRO COMPACT	-	-	-	•

The products supplied may be different to the pictures shown.

# Overview sensors Redox measurement

## Measuring cells for measuring the Redox value

				
Sensor type	ME110	ME110	ME110	ME110
Part number	44102011	44102013	44102014	44102019
Price [EUR]	125.30	456.60	1,085.00	235.00
Applications	Swimming pool water Process water light soiling	Process water heavy soiling	Boiler water	Salty waters
Measuring range	0 – 1000 mV			
Electrolyte	Potassium chloride (gel)		Potassium chloride (fluid)	Potassium chloride (gel)
Connection	N plug head with screw-in thread PG 13.5			
Pressure range	0 – 6 bar			
Temperature range	0 – 80 °C			0 – 50 °C
Installation lengths	120 mm			
Shaft diameter	approx. 12 mm			
Measuring principle	Redox single-rod measuring cell			
Can be used for water sampling station:				
EASYPRO 1	•	•	•	•
EASYPRO 2	•	•	•	•
EASYPRO 3	•	•	•	•
EASYPRO 4	•	•	•	•
EASYPRO MB-C	-	-	-	-
EASYPRO ME-C	•	-	-	•
EASYPRO MC-C	•	-	-	•
EASYPRO MD-C	•	-	-	•
EASYPRO MP-C	•	-	-	•
EASYPRO SMART CP	•	-	-	•
EASYPRO SMART RP	•	-	-	•
EASYPRO COMPACT	•	-	-	-







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# Fittings

The chlorine measuring cell, pH and Redox electrodes, temperature sensor and flow control have been combined into a single unit to facilitate integration into the system. Lutz-Jesco provides a wide range of different fittings, so that you always have the correct solution for connecting the sensors into your process.

## Fitting for accepting the sensors




						
Part number	44302004	37700	37701	37702	41100101	41100102
Price [EUR]	54.50	238.20	309.00	403.70	438.30	473.50
Version	Measuring cell fitting PRMZ	Throughflow fitting				
Number take-up electrodes	1	2	3		1	
Type of the electrodes	Single-rod measuring cells	Single-rod measuring cells, conductivity measuring cells				
for connection	Screw-in thread PG 13.5					
Temperature	60 °C	40 °C				
Discharge	max. 6 bar				max. 10 bar at 20 °C	
Material	Luran	PMMA			PVC	
Can be shut-off	Cannot be shut-off					
Description	Type B	DC111-2	DC111-3	DW111-2	DC111-DN20	DC111-DN25

					
Part number	41100103	41131288	41100104	41100110	41100105
Price [EUR]	1,432.90	261.80	276.10	311.90	642.30
Version	Throughflow fitting		Immersion fitting		
Number take-up electrodes	3	2	1		3
Type of the electrodes	Single-rod measuring cells, conductivity measuring cells				
for connection	Screw-in thread PG 13.5				
Temperature	max. 95 °C	max. 40 °C	max. 95 °C		
Discharge	6 bar (at 25 °C)		Pressure-free		
Material	PP	Plastic housing	PP		
Can be shut-off	Cannot be shut-off				
Immersion tube length	-	-	500 mm	1000 mm	426 mm
Description	Throughflow fitting DP111	Throughflow fitting DT111	EC 111-500 mm	EC 111-1000 mm	EP 111-426 mm





# Sensor technology accessories

## Fitting for accepting the sensors

			
Part number	41100115	41100116	37699
Price [EUR]	298.40	412.70	300.00
Version	Changeover device		Throughflow fitting
Number take-up electrodes	1		
Type of the electrodes	pH or redox single-rod measuring cells		Encapsulated electrodes
Connection	3/4"		for hose 6/12 mm
Temperature	70 °C	120 °C	40 °C
Discharge	5 bar (at 50 °C)		depending on the measuring cell used
Material	PP	PVDF	PMMA
Can be shut-off	Cannot be shut-off		
Description	Changeover device DW111-PP	Changeover device DW111-PVDF	Throughflow fitting

## Temperature sensor Pt100

		
Part number	41100021	41100022
Price [EUR]	434.40	64.60
Applications	Swimming pool water, Process water	
Measurement resistance	100 ohms	
Connection	N attachment head with Screw-in thread PG 13.5	Cable 2.5 m long
Pressure range	0 – 6 bar	0 – 5 bar
Temperature range	0 – 150 °C	0 – 80 °C
Sensor type	TE110	
Installation lengths	120 mm	50 mm
Shaft diameter	approx. 12 mm	approx. 6 mm
Shaft material	Glass shaft	Metal protective pipe (stainless steel)

# Sensor technology accessories



## Accessories sensor technology

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Choose from a comprehensive range of accessories for sensor technology. Measuring lines and sockets for various designs. Buffer, calibration, potassium chloride and cleaning solutions complete our offer.



## Photometer

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Photometers serve the adjustment of measurement systems through reference measurements. Systems with multiple sampling points need simple and quick reference measurements.

The Lutz-Jesco photometer combines this requirement with high measurement accuracy and a robust structure.



## An overview of the three measuring principles

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### Potentiometry

- Potentiometry measures the potential of the electrode in a measurement solution.

### Amperometry

- This enables the determination of the concentration of various substances by current measurement in watery solutions.

### Conductometry

- This measurement principle measures the electrolytic conductivity.

# Notes



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Sensor technology