

## DATA SHEET

PH/REDOX ELECTRODES

PRO140 / LZX545, PRO140PT100 / LZX546,  
LZY023, LZY027, LZY028



# pH/redox electrodes for immersion and in-line applications

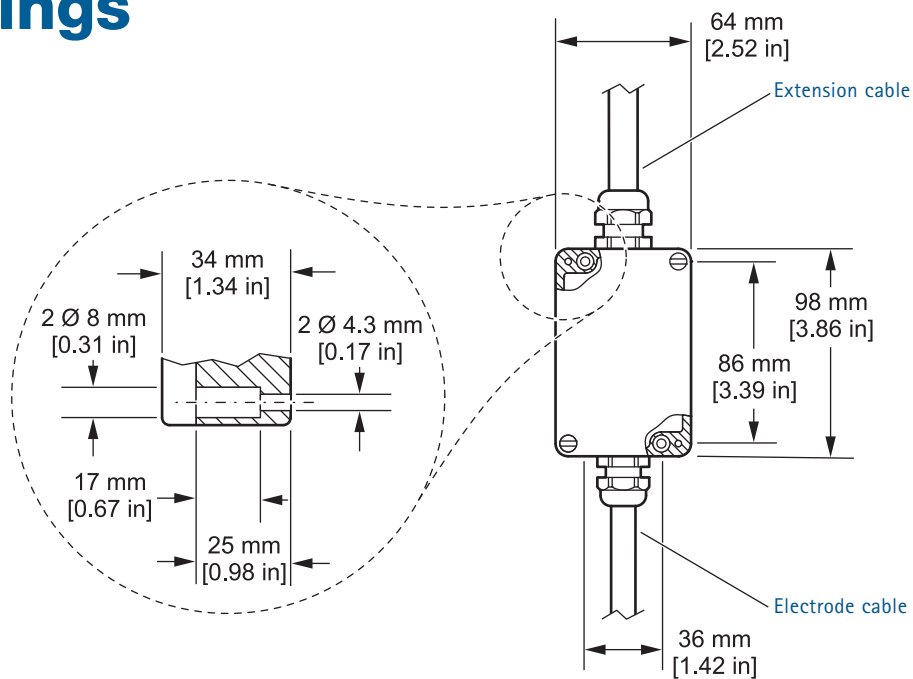
- Glass electrodes for special requirements and high-precision measurements
- For all measurements in drinking water, waste water and industrial process water
- Mounting in flow, immersion and retractable fitting with Pg13.5 threads
- Wide range of applications thanks to varying pressure and temperature ranges

# Technical data

Model / order no.	PH ELECTRODE				REDOX ELECTRODE
	Pro140 / LZX545	Pro140Pt100 / LZX546	LZY023	LZY027	LZY028
Application area	Food and beverage industry, fermentation, CIP and SIP applications		Drinking water, wastewater and process water		All applications
Measuring range	pH 0 ... 14		pH 2 ... 13		-2,000 .... +2,000 mV
Temperature range	-5 °C ... +135 °C		0 °C ... +100 °C		-5 °C ... +100 °C
Pressure range	34 bar at 25 °C		10 bar		10 bar
Response time $t_{98\%}$	10 secs.		<30 secs.		
Sterilizable	Yes		No		No
Electrolyte	Saturated KCl		Polymer with visible KCl reserve		Polymer with visible KCl reserve
Refillable	No				
Reference electrode	Ag/AgCl				
Diaphragm	Double-ring diaphragm (porous Teflon)		Annular gap	Hole diaphragm	Annular gap
Electrode shaft material	Glass				
Sensor material	Glass		Glass		Platinum disc
Temperature sensor	None	Pt100 integrated	None	Pt1000 integrated	None
Dimensions	See Drawings				
Weight	Approx. 0.15 kg				
Shaft length	120 mm				
Shaft diameter	12 mm				
Process connection	Pg13.5 thread				
Cable connection	TOP 68 plug connector		S7 plug connector	SMEK plug connector	VP plug connector

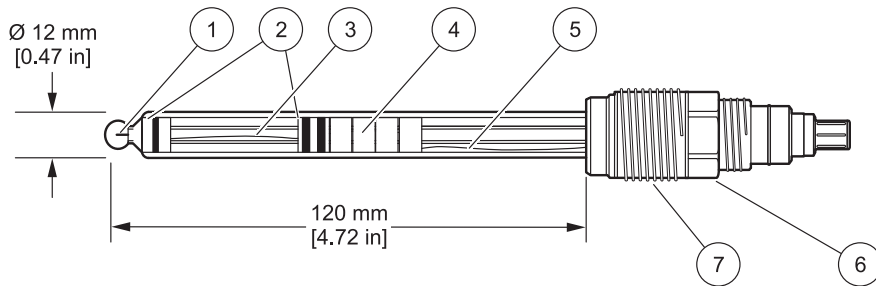
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# Drawings



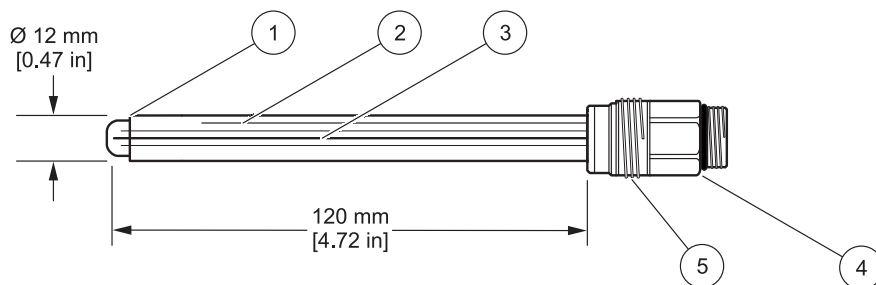
Drawing: connection box for cable extension

# Drawings



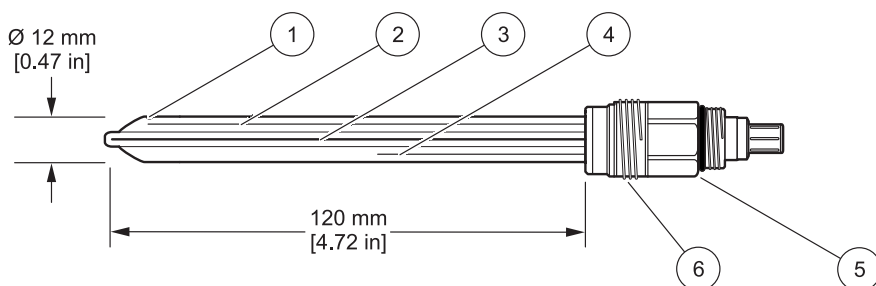
**pH electrode Pro140 /  
pH electrode Pro140Pt100**

1	Measuring electrode
2	Double-ring diaphragm
3	Temperature sensor (only for Pro140Pt100)
4	Salt rings
5	Reference electrode
6	TOP 68 plug connector
7	Pg13.5 thread



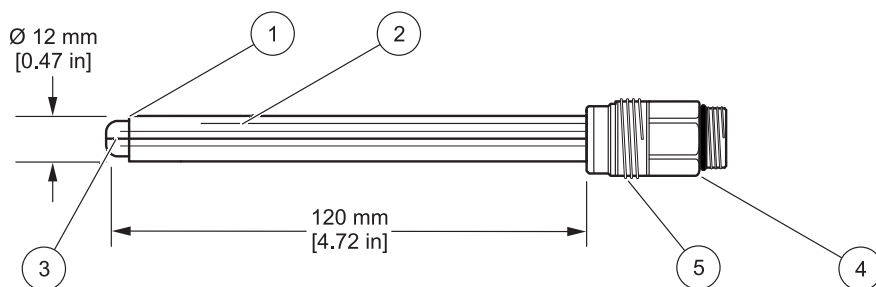
**pH electrode LZYO23**

1	Annular gap diaphragm
2	Reference electrode
3	Measuring electrode
4	S7 plug connector
5	Pg13.5 thread



**pH electrode LZYO27**

1	Hole diaphragm
2	Temperature sensor
3	Measuring electrode
4	Reference electrode
5	SMEK plug connector
6	Pg13.5 thread



**Redox electrode LZYO28**

1	Annular gap diaphragm
2	Reference electrode
3	Platinum disc (measuring electrode)
4	S7 plug connector
5	Pg13.5 thread

# Ordering information

## ELECTRODES

Designation	Order number
Pro140	LZX545
Pro140Pt100	LZX546
pH electrode	LZY023
pH electrode with Pt1000	LZY027
Redox electrode	LZY028

## ACCESSORIES

Designation	Order number
Plug/cable combination type S7 for LZY023 and LZY028, 3 m	Z359016,10110
Plug/cable combination type S7 for LZY023 and LZY028, 5 m	LZY037
Plug/cable combination type S7 for LZY023 and LZY028, 10 m	Z359016,10120
Plug/cable combination type S7 for LZY023 and LZY028, 20 m	Z359016,10122
Plug/cable combination type SMEK for LZY027, 5 m Tmax 130 °C (1 coaxial, 4-wire), open end	LZY021
Plug/cable combination type SMEK for LZY027, 10 m Tmax 130 °C (1 coaxial, 4-wire), open end	LZY581
Plug/cable combination type SMEK for LZY027, 20 m Tmax 130 °C (1 coaxial, 4-wire), open end	LZY582
Plug/cable combination type TOP68 for LZX545 and LZX546, 5 m	LZX548
Plug/cable combination type TOP68 for LZX545 and LZX546, 10 m	LZX516
Connection box for cable extension for cable lengths < 25 m 5 terminals plus external shielding Aluminum epoxy coated Protection class IP65	Z08350=A=8500
4-wire shielded coaxial cable type 2654, order per meter	Z358048,00000

Subject to change without notice.

## OPTIONAL ACCESSORIES

### SINGLET buffer solutions

Hermetically sealed in individual bags and color-coded; 25 mL each\*

Designation	Description	Quantity	Order number
pH 7.00 and pH 10.01	Yellow + blue	2 x 10 pieces	2769820
pH 4.01 and pH 7.00	Red + yellow	2 x 10 pieces	2769920
pH 4.01	Red	20 pieces	2770020
pH 7.00	Yellow	20 pieces	2770120
pH 10.01	Blue	20 pieces	2770220

\* Buffer traceable to NIST standard reference material, accuracy ±0.02 pH (25 °C); other concentrations available on request

### pH reagents

Designation	Order number
Buffer solution pH=4.00, 500 mL	Z363130,00500
Buffer solution pH=6.88, 500 mL	Z363131,00500
Buffer solution pH=9.22, 500 mL	Z363132,00500

### Redox reagents

Designation	Order number
200 mV solution, 500 mL	25M2A1001-115
600 mV solution, 500 mL	25M2A1002-115
200 mV solution, 4 L	25M2A1001-123
600 mV solution, 4 L	25M2A1002-123