

InLab DES Digital Sensors

The Smart Sensor Choice in the Lab

Scientists and technicians tackling daily challenges need reliable tools. InLab® DES® sensors deliver just that. Their smart diagnostic capabilities with troubleshooting for fast problem-solving detect issues early and prevent downtime, while digital signal transmission prevents interference. In addition to reliability, their modular system promotes sustainability and reduces waste. The Signal Bridge and the universal cable can be retained for years to come, and only one connector is needed to measure pH, conductivity, ion concentration, redox, and dissolved oxygen determinations, allowing a single instrument to handle multiple parameters.



METTLER TOLEDO

DES Sensor Technology

Diagnosable, Efficient, and Sustainable

One for All

All sensors connect to the same detachable cable, reducing complexity and promoting sustainability.

Stay Ahead

To reduce downtime, sensor diagnostics on the meter speed up problem-solving and prevent errors.

Measure Anywhere

Three different cable lengths enable an interference-free, stable signal anywhere within 5 meters.

Smart Investment

The detachable Signal Bridge eliminates the need for new measurement electronics, saving cost and reducing material waste.

Always in the Know

The diagnostic system's preventive maintenance maximizes the sensor's lifespan and prevents premature discard.

Promote Sustainability

Replacing only the sensor shaft at the end of its life while retaining the measurement electronics helps reduce the ecological footprint.



The Right Accessories

Accessories	Description	Order Number
Accessories for InLab OptiOx	Sensing Cap DO OptiOx Pro-DES	30786581
	DO Calibration Tube OptiOx Pro-DES	30786582
	DO Protective Guard OptiOx Pro-DES	30786583
	DO Adapter BOD OptiOx Pro-DES	30786584
	DO Adapter EasyPlace OptiOx Pro-DES	30786585
Wetting Caps for pH Sensors	For Electrodes with Shaft Diameter 12 mm	30247836
	For Electrodes with Shaft Diameter 8 mm and InLab Solids Family	51340021
	For Electrodes with Shaft Diameter 6 mm	52000442
	For Electrodes with Shaft Diameter 3 mm	52000441
SafeLock Blue	SafeLock Cover for Refill Hole of pH Electrodes (5 pcs.)	30248827
SafeLock White	SafeLock Cover for Refill Hole of pH Electrodes (5 pcs.)	30248829
Adapter	Adapter Sleeve to NS 14.5 for Sensors with 12 – 15 mm Shaft Diameter (material: PE)	51340024

Digital Signal Bridge	Description	Order Number
DES Signal Bridge	Signal Bridge DES pH/Redox	31027069
	Signal Bridge DES Cond	31027077

Sensor Cables	Description	Order Number
DES Cables	Cable InLab DES 1.2 m	31052331
	Cable InLab DES 3.0 m	31052332
	Cable InLab DES 5.0 m	31052333

[Count on us](#) - Our experts are here to support you at every step of the way, from choosing the right sensor to overcoming application challenges; ensuring you have everything to succeed.

Specifications

pH	InLab Expert Pro-DES	InLab Micro Pro-DES	InLab Ultra Micro DES	InLab Solids Pro-DES	InLab Science Pro-DES	InLab Max Pro-DES	InLab Pure Pro-DES
Material Number	31027061	31027062	31027067	31027063	31027064	31027065	31027066
Shaft Length (mm)	120	130	40	25	170	120	170
Shaft Diameter (mm)	12	5	3	6	12	12	12
Shaft Material	PEEK	Glass	Glass	Glass	Glass	Glass	Glass
Measuring Range (pH)	0 - 14	0 - 14	1 - 11	1 - 11	0 - 12	0 - 14	1 - 11
Temperature Range (°C)	0 - 100	0 - 100	0 - 80	0 - 80	0 - 100	0 - 100	0 - 80
Integrated Temp. Sensor	NTC 30kΩ	NTC 30kΩ	NA	NTC 30kΩ	NTC 30kΩ	NTC 30kΩ	NTC 30kΩ
Reference System	ARGENTHAL™	ARGENTHAL	ARGENTHAL	ARGENTHAL	ARGENTHAL	ARGENTHAL	ARGENTHAL
Min. Immersion Depth (mm)	15	12	5	15	35	25	25
Reference Junction	2 open junctions	Ceramic	Ceramic	Open junction	Movable glass sleeve	Fixed glass sleeve	Fixed glass sleeve
Reference Electrolyte	Xerolyt®	3 mol/L KCl	Friscolyt B®	Xerolyt Extra	3 mol/L KCl	3 mol/L KCl	3 mol/L KCl
Bridge Electrolyte	-					-	1 mol/L KCl
Membrane Glass	U	U	LoT	LoT	A41	HA	LoT

Conductivity	InLab 731 Pro-DES	InLab 741 Pro-DES
Material Number	31027075	31027076
Shaft Length (mm)	120	120
Shaft Diameter (mm)	12	12
Shaft Material	Epoxy	Stainless Steel
Measuring Range	0.01 - 1000 mS/cm	0.001 - 500 µS/cm
Temperature Range (°C)	0 - 100	0 - 100
Min. Immersion Depth (mm)	20	20
Integrated Temp. Sensor	NTC 30kΩ	NTC 30kΩ
Cell Type	4 graphite poles	2 steel poles
Cell Constant Type	Nominal	Certified
Cell Constant Reference	0.57 cm ⁻¹	0.105 cm ⁻¹
Cell Constant Uncertainty	± 20%	± 2%

Redox	InLab Redox DES*
Material Number	31027068
Shaft Length (mm)	120
Shaft Diameter (mm)	12
Shaft Material	Glass
Temperature Range (°C)	0 - 100
Min. Immersion Depth (mm)	10
Integrated Temp. Sensor	NA
Sensor Type	Combined
Metal	Pt Ring
Reference Electrolyte	3 mol/L KCl

Dissolved Oxygen	InLab OptiOx Pro-DES
Material Number	30786580
Shaft Length (mm)	65
Shaft Diameter (mm)	12
Shaft Material	PC / ABS
Measuring Range	0 - 500 % 0 - 50 mg/L
Temperature Range (°C)	0 - 50
Min. Immersion Depth (mm)	22 mm
Integrated Temp. Sensor	NTC 30kΩ
Sensor Type	Optical
Max. Life Span Sensing Cap	18 months
Barometric Pressure Sensor (USB)	Incl. in standard delivery

* available with version 1.1, January 26

METTLER TOLEDO Group

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Subject to technical changes.

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