

405-DPAS-SC-K8S

Pressurized gel-filled pH/redox electrodes for biotechnology and pharmaceutical applications

Technical Data



405-DPAS-SC-K8S

Short description

The DPAS Series of low-maintenance, long-life pH/ORP combination electrodes from METTLER TOLEDO come complete with a factory-filled, pressurized gel-electrolyte reference system. Electrode and plug head are fully autoclavable or in-situ sterilizable, and designed for use in vessels, open tanks or closed reactors and fermenters, i.e. **for a wide spectrum of process applications in the biotechnology and pharmaceuticals industries**. An appropriate range of integral technical features ensures trouble-free, continuous and highly accurate pH measurement with a very short response time:

- Prepressurization of the gel electrolyte provides permanent internal pressure within the electrode, thereby preventing the ingress of process medium into the reference system and, at the same time, ensuring continuous cleaning of the diaphragm through the constant slow outflow of smallest amounts of electrolyte.
- The patented silver-ion barrier integrated in the reference system avoids contamination and clogging of the diaphragm with black silver sulfide during measurements in process media containing sulfur-bearing compounds or proteins (e.g. amino acids).
- Electrode and connector are fully autoclavable or in-situ sterilizable.
- Designed for use in vessels, open tanks or closed reactors as well as in fermenters at process pressures of up to 2.5 bar overpressure.
- Include VarioPin (VP) connector (IP68) and, similar to the InPro 3200, additional advantages such as temperature compensation, Eex certification, and certification following the Pressure Equipment Directive (PED).

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METTLER TOLEDO

Specifications

Measuring range	pH 0...12
Temperature	0...100 °C in operation 0...130 °C for sterilization
Pressure resistance	from vacuum up to a process pressure of max. 2.5 bar (36 psi)
Reference system	Argenthal (Ag/AgCl)
Reference electrolyte	pressurized gel electrolyte
Diaphragm	1 ceramic diaphragm
Glass shaft	Ø 12 mm
Plug head	K8S, Pg 13.5 thread

Ordering information

Electrodes		
pH-electrodes	Electrode length [a]	Order no.
405-DPAS-SC-K8S/120	120 mm (4.70")	10 405 4479
405-DPAS-SC-K8S/150	150 mm (5.91")	10 405 4498
405-DPAS-SC-K8S/225	225 mm (8.86")	10 405 4481
405-DPAS-SC-K8S/325	325 mm (12.80")	10 405 4482
405-DPAS-SC-K8S/425	425 mm (16.73")	10 405 4483
Redox-electrodes		
Pt4805-DPAS-SC-K8S/120	120 mm (4.70")	10 505 3334
Pt4805-DPAS-SC-K8S/225	225 mm (8.86")	10 505 3336
Pt4805-DPAS-SC-K8S/325	325 mm (12.80")	10 505 3337

Cables (open ends)		
Type	Length	Order no.
AK9 / 3 m	3 m (9.8 ft)	10 000 0302
AK9 / 5 m	5 m (16.4 ft)	10 000 0502
AK9 / 10 m	10 m (32.8 ft)	10 000 1002

Buffer solutions			
	Order no.	Order no.	Order no.
	1 x 250 ml	6 x 250 ml	1 x 1000 ml
Buffer pH=4.01 (red)	51 340 057	51 340 058	51 340 228
Buffer pH=7.00 (green)	51 340 059	51 340 060	51 340 229
Buffer pH=9.21 (blue)	51 300 193	51 300 194	51 340 230
Redox buffer +220 mV	51 340 065	51 340 081	51 319 021
Redox buffer +468 mV	51 340 666	–	–

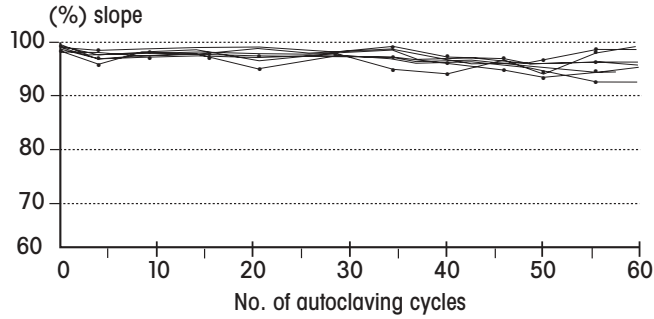
Recommended housings

Length	Side mounting	Top mounting
120 mm (4.70")	InFit 761-25BT(B)/70 or CIP	–
150 mm (5.91")	InFit 761-25BT(B)/100	–
225 mm (8.86")	InFit 761-25BT(B)/175	InFit 761-19BT/175
325 mm (12.80")	InTrac 797/75	InFit 761-19BT/275
425 mm (16.73")	–	InFit 761-19BT/375

Transmitters

A wide range of transmitters can be offered to complete the METTLER TOLEDO/INGOLD measurement system, including a 4 wire version for universal AC/DC power supply, or alternatively in 2-wire versions, with or without HART® or Profibus® communication, of standard or explosion-proof (EEx) design.

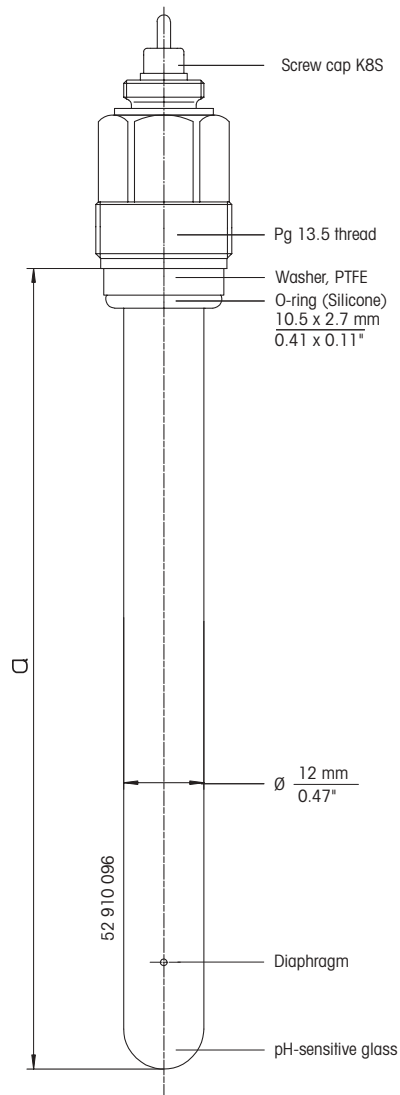
Autoclaving



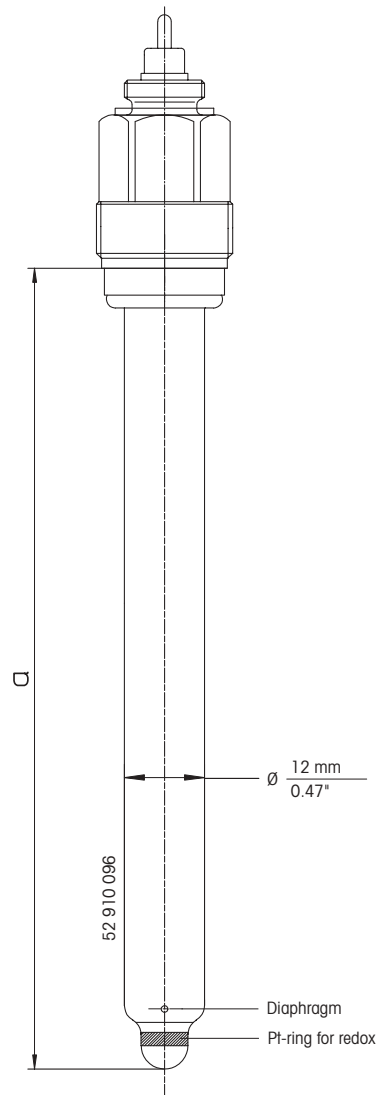
Autoclaving:
The graph illustrates typical slope values during an autoclaving challenge test under standardized conditions.

Drawings

405-DPAS-SC-K8S



P14805-DPAS-SC-K8S



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