

InPro 6000 G Sensor Series

Oxygen Control for Your Gas Applications



USP
Class VI



ISM[®]

Features Overview

- True in-line measurement without gas sampling system
- Long lasting and easy to maintain membranes
- Certified for hazardous gaseous and dust areas
- Oxygen measurement is not affected by water, water vapors or most organic solvents

Other Highlights

- Membrane covered amperometric measurement technology allows direct in-line installations
- Sensor can easily be calibrated in air. Costly calibration gases are eliminated

The InPro 6000 G O₂ sensor series for gas measurement provides high operational availability together with excellent measurement performance. Without the need for expensive gas sample conditioning, the sensor can be installed directly in the process, and sensor maintenance or replacement can be performed without process interruption. METTLER TOLEDO offers a unique easy-to-use and reliable solution for challenging applications like N₂ blanketing, inertization and off-gas monitoring in Ex or non-Ex applications.

Specifications

Performance

Operating range	InPro 6800G/6850iG:	0.1 Vol-% O ₂ to 100 Vol-% O ₂
	InPro 6900iG:	50 ppm to 60 Vol-% O ₂
	InPro 6950iG:	5 ppm to 50,000 ppm
Accuracy	InPro 6800G/6850iG:	≤ ± [1 % + 0.1 Vol-%]
	InPro 6900iG:	≤ ± [1 % + 50 ppm]
	InPro 6950iG:	≤ ± [1 % + 5 ppm]
Response time at 25 °C (77 °F) (N ₂ → 15 Vol-% O ₂)		90 % of the signal in < 20
Sensor signal in air at 25 °C (77 °F)	InPro 6800G/6850iG:	50 to 110 nA
	InPro 6900iG:	250 to 500 nA
	InPro 6950iG:	2500 to 6000 nA

Construction

Measuring principle	Amperometric Clark electrode
Cable connection	Analog VarioPin (IP68), Digital K8S (IP68)
Connector design	Straight
Process connection	Pg 13.5
Sensor diameter	12 mm
Sensor body	316L stainless steel C22 (titanium on request)
Membrane material	PTFE/Silicone (reinforced with steel mesh)
Surface roughness of wetted parts	N5/R _a 16 (R _a = 0.4 μm / 16 μin)
O-ring material	Silicone or Kalrez [®]

Working Conditions

Temperature compensation	Automatic
Measuring temperature range	0 to 70 °C (32 to 158 °F)
Environmental temperature range	–5 to 121 °C (23 to 249.8 °F)
Operating pressure	0.2 to 9 bar (2.9 to 130 psi absolute)
Design pressure	Maximum 12 bar (174 psi absolute)

Certificates and Approvals

METTLER TOLEDO Quality Certificate, EHEDG, FDA/USP Class VI, 3.1, N5/R_a16,
ATEX: Ex ia IIC T6/T5/T4/T3 Ga/Gb,
Ex ia IIIC T69 °C/T81 °C/T109 °C/T161 °C Da/Db
FM: IS Cl. I, II, III, Div 1, GR ABCDEFG/T6*

Intelligent Sensor Management (ISM)

InPro 6000iG sensors with integrated ISM functionality allow Plug and Measure and advanced diagnostics. ISM simplifies the installation, handling and maintenance of measurement equipment. For more information see ISM introduction pages 10–11.

► www.mt.com/O2-gas

Ordering Information

12 mm InPro 6800G Oxygen Sensors	Length	Connector Style	Order Number
InPro 6800G/12/120	120 mm	Straight VP	52 206 425
InPro 6800G/12/220	220 mm	Straight VP	52 206 426
InPro 6800G/12/120/Ka	120 mm	Straight VP	52 206 427
InPro 6800G/12/220/Ka	220 mm	Straight VP	52 206 428
InPro 6800G/12/120/C22	120 mm	Straight VP	52 206 429
InPro 6800G/12/220/C22	220 mm	Straight VP	52 206 430
12 mm InPro 6850iG Oxygen Sensors			
InPro 6850iG/12/120	120 mm	Straight K8S	52 206 431
InPro 6850iG/12/220	220 mm	Straight K8S	52 206 432
InPro 6850iG/12/120/Ka	120 mm	Straight K8S	52 206 433
InPro 6850iG/12/220/Ka	220 mm	Straight K8S	52 206 434
InPro 6850iG/12/120/C22	120 mm	Straight K8S	52 206 435
InPro 6850iG/12/220/C22	220 mm	Straight K8S	52 206 436
12 mm InPro 6900iG Oxygen Sensors			
InPro 6900iG/12/120	120 mm	Straight K8S	52 206 437
InPro 6900iG/12/220	220 mm	Straight K8S	52 206 438
InPro 6900iG/12/120/Ka	120 mm	Straight K8S	52 206 439
InPro 6900iG/12/220/Ka	220 mm	Straight K8S	52 206 440
12 mm InPro 6950iG Oxygen Sensors			
InPro 6950iG/12/120	120 mm	Straight K8S	52 206 443
InPro 6950iG/12/220	220 mm	Straight K8S	52 206 444

Consumables

Designation	Order Numbers			
	InPro 6800G	InPro 6850iG	InPro 6900iG	InPro 6950iG
Membrane body, single T-Type	52 201 151	52 206 453	52 206 459	52 206 465
Membrane body, single T-Type Ka (Kalrez® O-ring)	52 201 158	52 206 455	52 206 461	–
Membrane body, single T-Type C22 (Kalrez® O-ring, wetted part C22)	52 201 163	52 206 457	–	–
Membrane kit T-Type*	52 201 149	52 206 454	52 206 460	52 206 466
Membrane kit T-Type Ka**	52 201 159	52 206 456	52 206 462	–
Membrane kit T-Type C22***	52 201 164	52 206 458	–	–
Replacement anode/cathode assembly	52 206 449	52 206 450	52 206 451	52 206 452
O ₂ electrolyte pack (3 × 25 ml)	30 298 424	30 298 424	–	–
InPro 6900 electrolyte pack (3 × 5 ml)	–	–	30 298 425	–
InPro 6950 electrolyte pack (3 × 5 ml)	–	–	–	30 298 426

* 4 membranes, 1 O-ring set silicone, 25 ml electrolyte, wetted parts SS 316L
 ** 4 membrane, 1 O-ring set Kalrez®, 25 ml electrolyte, wetted parts SS 316L
 *** 4 membranes, 1 O-ring set Kalrez®, 25 ml electrolyte, wetted parts C22 (Hastelloy)

Accessories

Designation	Order Number
O ₂ Sensor Master digital ISM	52 206 329
InPro 6800 Sensor Master	52 200 892

Did You Know
 The InPro 6000G with ISM series feature a built-in electrolyte level monitor that signals the user when refilling is required.

O₂ sensor master



Replacement anode/cathode assembly of InPro 6950iG



Membrane Body InPro 6800G



Membrane Body InPro 6850iG

Suitable Housings

InFit 761 e.....	110
InFlow	114
InTrac 777 e.....	119
InTrac 797 e.....	120
InTrac 781	121