

InPro® 4800 and InPro® 4800 SG

Top-of-the-line combination pH electrodes with built-in temperature sensor

Technical Data



InPro 4800



InPro 4800 SG

Short description

METTLER TOLEDO's top-of-the-line combination pH electrodes with integral temperature sensors are ideal for the toughest applications in chemical process industries. These electrodes offer reliable measurements in oxidizing media, in strong acid or alkali solutions, also at high process pressures and temperatures. The flat glass membrane version with an integrated auxiliary platinum electrode (SG) is available for media containing a high amount of particles.

- Low maintenance pH electrode – no refilling of electrolyte
- Extended lifetime:
 - Very high resistance to oxidizing media, solvents and acid or alkali solutions
 - Highly resistant to any effects from poisoning ions, e.g. sulfide etc., due to a long diffusion path, and a dirt repellent annular junction (PTFE)
 - Pressure-compensated diffusion path enables operation at particularly high (process) pressures
 - Designed for high temperatures
- Integrated temperature sensor
- Available with the option of an auxiliary platinum electrode for "Solution Ground" (SG): The platinum plated surface enables redox (ORP) measurement and advanced sensor diagnostics, as well as preventing measurement errors due to ground potentials
- Reliable pH-measurements over the entire pH range, pH 0...14
- VarioPin (VP) connector (IP 68)
- Ex certification: II 1/2G EEx ia IIC/T6/T5/T4, SNCH 00 ATEX 3130X
- According to PED (Pressure Equipment Directive, 97/23/EC, Art. 3, Sec. 3)

Contents

Specifications	2
Ordering information	2
pH electrodes	2
Cables	2
Buffer solutions	3
Compatibility with METTLER TOLEDO transmitters	3
Drawings	3

METTLER TOLEDO

Specifications

Measuring range	pH 0 ... 14 for InPro 4800 pH 1 ... 14 for InPro 4801/InPro 4802, with reduced lifetime at pH 12 ... 14	
Temperature	-5 ... 130 °C (23 ... 266 °F) InPro 4801/InPro 4802: reduced lifetime at temperatures over 80 °C (176 °F)	
Pressure resistance	13 bar at 130 °C (188 psi at 266 °F) According to PED (Pressure Equipment Directive, 97/23/EC, Art. 3, Sec. 3)	
Safety factor (pressure)	3	
Reference system	Pressure-compensated double gel-electrolyte chambers, Ag/AgCl system (patent pending)	
Diaphragm	Exterior:	PTFE (Teflon) annular junction
	Interior:	non-flow diaphragm
Glass membrane	Cylindrical:	InPro 4800, high alkali glass quality
	Flat:	InPro 4801 SG, low temperature glass quality
Glass shaft	∅ 12 mm (0.47")	
Plug head	VarioPin (VP), Pg 13.5 thread	
VP protection rating	IP68	
Auxiliary platinum electrode	Redox measurement (ORP), enhanced sensor diagnostics, solution grounding	

Ordering information

pH electrodes

	Electrode length [a]	Order no.	Suitable housings
Temperature sensor Pt 100			
InPro 4800/120/Pt 100	120 mm	52 002 124	InFit 761e/762e, InTrac 787
InPro 4800/225/Pt 100	225 mm	52 002 126	InTrac 777e
InPro 4802/225/Pt 100	225 mm	52 002 718	InTrac 777e
InPro 4800/425/Pt 100	425 mm	52 002 129	InTrac 777e
Solution Ground:			
InPro 4801SG/120/Pt 100*	120 mm	52 002 131	InTrac 787
Temperature sensor Pt 1000			
InPro 4800/120/Pt 1000	120 mm	52 002 125	InFit 761e/762e
InPro 4800/225/Pt 1000	225 mm	52 002 127	InTrac 777e
InPro 4800/425/Pt 1000	425 mm	52 002 130	InTrac 777e
Solution Ground:			
InPro 4800SG/120/Pt 1000*	120 mm	52 002 805	InFit 761e/762e
InPro 4801SG/120/Pt 1000*	120 mm	52 002 132	InTrac 787
InPro 4800SG/225/Pt 1000*	225 mm	52 002 806	InTrac 777e

* Flat glass membrane

Cables (open ends)

Standard temperature (-30 to 80 °C / -22 to +76 °F)	Order no.
VP6-ST/3 m (9.8 ft)	52 300 108
VP6-ST/5 m (16.4 ft)	52 300 109
VP6-ST/10 m (32.8 ft)	52 300 110

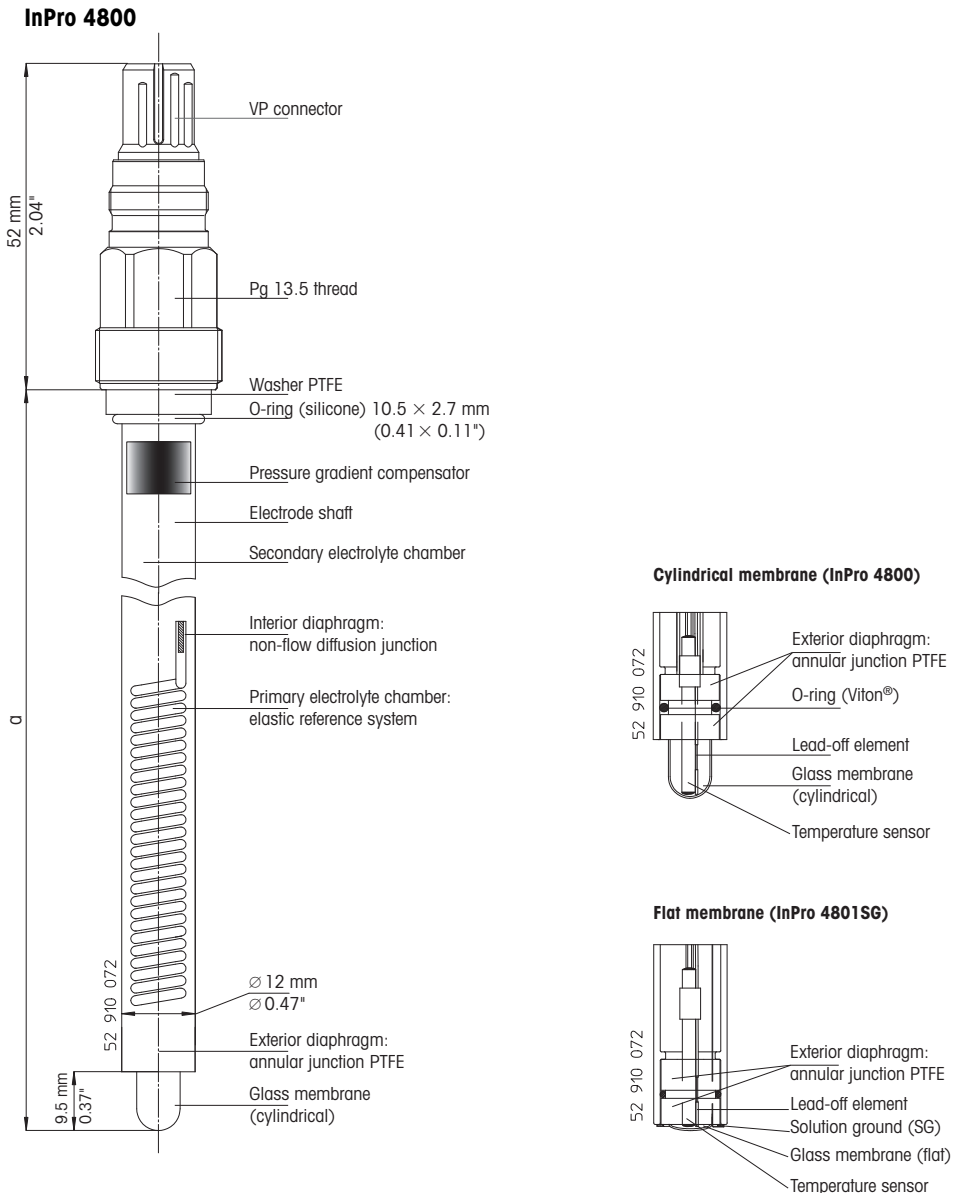
High temperature (-30 to 135 °C / -22 to +275 °F)	Order no.
VP6-HT/3 m (9.8 ft)	52 300 112
VP6-HT/5 m (16.4 ft)	52 300 113
VP6-HT/10 m (32.8 ft)	52 300 114

Buffer solutions			
	Order no. 1 × 250 ml	Order no. 6 × 250 ml	Order no. 1 × 1000 ml
pH buffer solution			
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
Reference electrolyte			
Friscolyt™	51 340 053		

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 (Ex) design.

Drawings



METTLER TOLEDO Market Organizations

Sales and Service:

Australia

Mettler-Toledo Ltd.
220 Turner Street
Port Melbourne
AUS - 3207 Victoria
Phone +61 31300 659 761
Fax +61 3 9645 3935
e-mail mftausprocess@mt.com

Austria

Mettler-Toledo GmbH
Südrandstrasse 17
AT - 1230 Wien
Phone +43 1 604 19 80
Fax +43 1 604 28 80
e-mail infoprocess.mt.at@mt.com

Brazil

Mettler-Toledo Ind. e Com. Ltda.
Alameda Araguaia
451 - Alphaville
BR - 06455-000 Barueri/SP
Phone +55 11 4166 74 00
Fax +55 11 4166 74 01
e-mail sales@mettler.com.br
service@mettler.com.br

China

Mettler-Toledo Instruments
(Shanghai) Co. Ltd.
589 Gui Ping Road
Cao He Jing
CN - 200233 Shanghai
Phone +86 21 64 85 04 35
Fax +86 21 64 85 33 51
e-mail mtfcs@public.sta.net.cn

Croatia

Mettler-Toledo d.o.o.
Mandlova 3
HR - 10000 Zagreb
Phone +385 1 292 06 33
Fax +385 1 295 81 40
e-mail mt-zagreb@mt.com

Czech Republic

Mettler-Toledo spol s.r.o.
Trebohosticka 2283/2
CZ - 100 00 Praha 10
Phone +420 2 72 123 150
Fax +420 2 72 123 170
e-mail sales.mtcz@mt.com

Denmark

Mettler-Toledo A/S
Naverland 8
DK - 2600 Glostrup
Phone +45 43 27 08 00
Fax +45 43 27 08 28
e-mail info.mtdk@mt.com

France

Mettler-Toledo
Analyse Industrielle Sarl
30, Boulevard de Douaumont
BP 949
F - 75829 Paris Cedex 17
Phone +33 1 47 37 06 00
Fax +33 1 47 37 46 26
e-mail mtpro-f@mt.com

Germany

Mettler-Toledo GmbH
Prozeßanalytik
Ockerweg 3
D - 35396 Gießen
Phone +49 641 507 333
Fax +49 641 507 397
e-mail prozess@mt.com

Great Britain

Mettler-Toledo LTD
64 Boston Road, Beaumont Leys
GB - LE4 1AW Leicester
Phone +44 116 235 7070
Fax +44 116 236 5500
e-mail enquire.mtuk@mt.com

Hungary

Mettler-Toledo Kereskedelmi KFT
Teve u. 41
HU - 1139 Budapest
Phone +36 1 288 40 40
Fax +36 1 288 40 50
e-mail mthu@axelero.hu

India

Mettler-Toledo India Private Limited
Amar Hill, Saki Vihar Road
Powai
IN - 400 072 Mumbai
Phone +91 22 2857 0808
Fax +91 22 2857 5071
e-mail sales.mtin@mt.com

Italy

Mettler-Toledo S.p.A.
Via Vialba 42
I - 20026 Novate Milanese
Phone +39 02 333 321
Fax +39 02 356 2973
e-mail customercare.italia@mt.com

Japan

Mettler-Toledo K.K.
Process Division
5F Tokyo Ryutsu Center, Annex B
6-1-1 Heiwajima, Ohta-ku
JP - 143-0006 Tokyo
Phone +81 3 5762 07 06
Fax +81 3 5762 09 71
e-mail helpdesk.ing.jp@mt.com

Malaysia

Mettler-Toledo (M) Sdn Bhd
Bangunan Electrosccon Holding
Lot 8 Jalan Astaka U8/84
Seksyen U8, Bukit Jelutong
MY - 40150 Shah Alam Selangor
Malaysia
Phone +60 3 78 45 57 73
Fax +60 3 78 45 87 73
e-mail ahmad.rashidi@mt.com

Mexico

Mettler-Toledo S.A. de C.V.
Pino No. 350, Col. Sta.
MA. Insurgentes, Col Atlampa
MX - 06450 México D.F.
Phone +52 55 55 47 57 00
Fax +52 55 55 41 22 28
e-mail mario.roca@mt.com

Poland

Mettler-Toledo (Poland) Sp.z.o.o.
ul. Poleczki 21
PL - 02-822 Warszawa
Phone +48 22 545 06 80
Fax +48 22 545 06 88
e-mail polska@mt.com

Russia

Mettler-Toledo Vostok ZAO
Sretenskij Bulvar 6/1
Office 6
RU - 101000 Moscow
Phone +7 095 921 92 11
Fax +7 095 921 63 53
+7 095 921 78 68
e-mail inforus@mt.com

Singapore

Mettler-Toledo (S) Pte. Ltd.
Block 28
Ayer Rajah Crescent #05-01
SG - 139959 Singapore
Phone +65 6890 00 11
Fax +65 6890 00 12
+65 6890 00 13
e-mail ashley.kong@mt.com

Slovakia

Mettler-Toledo s.r.o.
Bulharska 61
SK - 82104 Bratislava
Phone +421 243 42 74 96
Fax +421 243 33 71 90
e-mail predaj@mt.com

Slovenia

Mettler-Toledo d.o.o.
Peske 12
SI - 1236 Trzin
Phone +386 1 530 80 50
Fax +386 1 562 17 89
e-mail cipot@mtslo.mt.com
racman@mettler-toledo.si

South Korea

Mettler-Toledo (Korea) Ltd.
Yeil Building 1 & 2 F
124-5, YangJe-Dong
SeCho-Ku
KR - 137-130 Seoul
Phone +82 2 3498 3500
Fax +82 2 3498 3556
e-mail Sales_MTKR@mt.com

Spain

Mettler-Toledo S.A.E.
C/ Miguel Hernández, 69-71
ES - 08908 L'Hospitalet de Llobregat
(Barcelona)
Phone +34 93 223 76 00
Fax +34 93 223 76 01
e-mail bcn.centralita@mt.com

Sweden

Mettler-Toledo AB
Virkesvägen 10
Box 92161
SE - 12008 Stockholm
Phone +46 8 702 50 00
Fax +46 8 642 45 62
e-mail sales.mts@mt.com

Switzerland

Mettler-Toledo (Schweiz) AG
Im Langacher
Postfach
CH - 8606 Greifensee
Phone +41 44 944 45 45
Fax +41 44 944 45 10
e-mail info.ch@mt.com
info.ola.ch@mt.com

Thailand

Mettler-Toledo (Thailand) Ltd.
272 Soi Soonvijai 4
Rama 9 Rd., Bangkapi
Huay Kwang
TH - 10320 Bangkok
Phone +66 2 723 03 00
Fax +66 2 719 64 79
e-mail mettler@samart.co.th

USA/Canada

Mettler-Toledo Ingold, Inc.
36 Middlesex Turnpike
Bedford, MA 01730, USA
Phone +1 781 301 8800
Toll free +1 800 352 8763
Fax +1 781 271 0681
e-mail mtprou@mt.com
ingold@mt.com



Management-System
zertifiziert nach
ISO 9001 / ISO 14001

Subject to technical changes.
© Mettler-Toledo GmbH 06/05
Printed in Switzerland. 52 002 193

Mettler-Toledo GmbH, Process Analytics
Industrie Nord, CH - 8902 Urdorf
Tel. +41 44 736 22 11, Fax +41 44 736 26 36

www.mtpro.com