

InPro® 4800 (i) and InPro® 4881 i

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

Technical Data



InPro 4800

InPro 4800 i

InPro 4881 i

Short description

The InPro 4800 family, with substantially prolonged operational life in the presence of aggressive chemicals or at high operational pressures, significantly reduces electrode maintenance and frequency of replacement. The probes offer reliable measurements in oxidizing media, strong acid or alkali solutions, sulfide-bearing media, etc. The InPro 4881 i features a rugged titanium shaft and its flat pH membrane is protected by a PEEK cap providing a robust solution for achieving process safety in challenging industrial environments.

The InPro 4800 (i) and InPro 4881 i electrodes, with very long diffusion path using two electrolyte chambers, provide the following advantages:

- 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-repelling annular junction (PTFE).
 - Pressure-compensated diffusion path enables operation at particularly high (process) pressures.
 - Designed for high temperatures.
- Available with the option of an auxiliary platinum electrode for Solution Ground (SG): The platinum-plated surface enables redox (ORP) measurement (InPro 4800 (i) only) and advanced sensor diagnostics, as well as preventing measurement errors due to ground potentials

ISM® technology provides the following advantages:

- Swift exchange of pre-calibrated sensors at the measuring point with the Plug and Measure feature.
- Advanced sensor self-diagnostics.
- Predictive maintenance functions.
- Monitor the ageing of the sensor in real time with the Dynamic Lifetime Indicator.
- Adaptive Calibration Timer determines when the next calibration will be due.

InPro 4881 i robust construction with titanium shaft

Featuring a titanium shaft and a stainless steel thread, the InPro 4881 i has been designed to withstand not only the most aggressive process conditions, but also the common everyday knocks in industrial sites.

Contents

Technical data/Buffer solutions/Transmitters/Ordering information	2
Ordering information/Drawings	3

METTLER TOLEDO

Technical data of the InPro 4800(i) & InPro 4881 i

pH range	InPro 4800 (i): 0 – 14 pH InPro 4801 (i), InPro 4802 (i): 1 – 14 pH InPro 4881 i: 1 – 14 pH
Temperature	–5 to 130 °C (23 to 266 °F)
Pressure	12 barg at 130 °C (174 psi at 266 °F)
Cable Connection	ISM: K8S; Analog: VP
Process Connection	Pg 13.5 thread
Reference system	Ag/AgCl system, pressure-compensated double gel-electrolyte chambers
Type of junction	Exterior: PTFE annular diaphragm. Interior: Non-flow ceramic diaphragm
Reference electrolyte	Gel
Lengths	120 mm, 225 mm, 425 mm
Shaft diameter	12 mm
Shaft materials	InPro 480x(i): Glass; InPro 488xi: Titanium
Temperature sensor	ISM: Digital; Analog: Pt 100 or Pt 1000
Sterilizable	No
Autoclavable	No
pH membrane	Various by applications
Solution ground	InPro 480x(i): Platinum; InPro 488xi: Titanium
Certificates	METTLER TOLEDO Quality certificate, EN 10204-3.1 (InPro 4881 i) Pressure Equipment Directive guidelines (PED) 97/23/EC ATEX: Ex ia IIC T6/T5/T4/T3 Ga/Gb. FM: IS Cl. I,II,III Div 1, GR ABCDEFG/T6

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
Storage solution			
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® or FOUNDATION fieldbus® communication, of standard or explosion-proof (Ex) design.

Ordering information

Cables (ISM sensors)			Order no.
Standard temperature (– 30 to 80 °C/– 22 to + 76 °F)			
AK9	open	1 m (3.3 ft)	59 902 167
AK9	open	3 m (9.8 ft)	59 902 193
AK9	open	5 m (16.4 ft)	59 902 213
AK9	open	10 m (32.8 ft)	59 902 230
AK9	open	20 m (65.6 ft)	52 300 204
Cables (Analog sensors)			Order no.
Standard temperature (– 30 to 80 °C/– 22 to + 76 °F)			
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

Ordering Information/Drawings

InPro 4800 (i)/InPro 4881 i

Ordering information

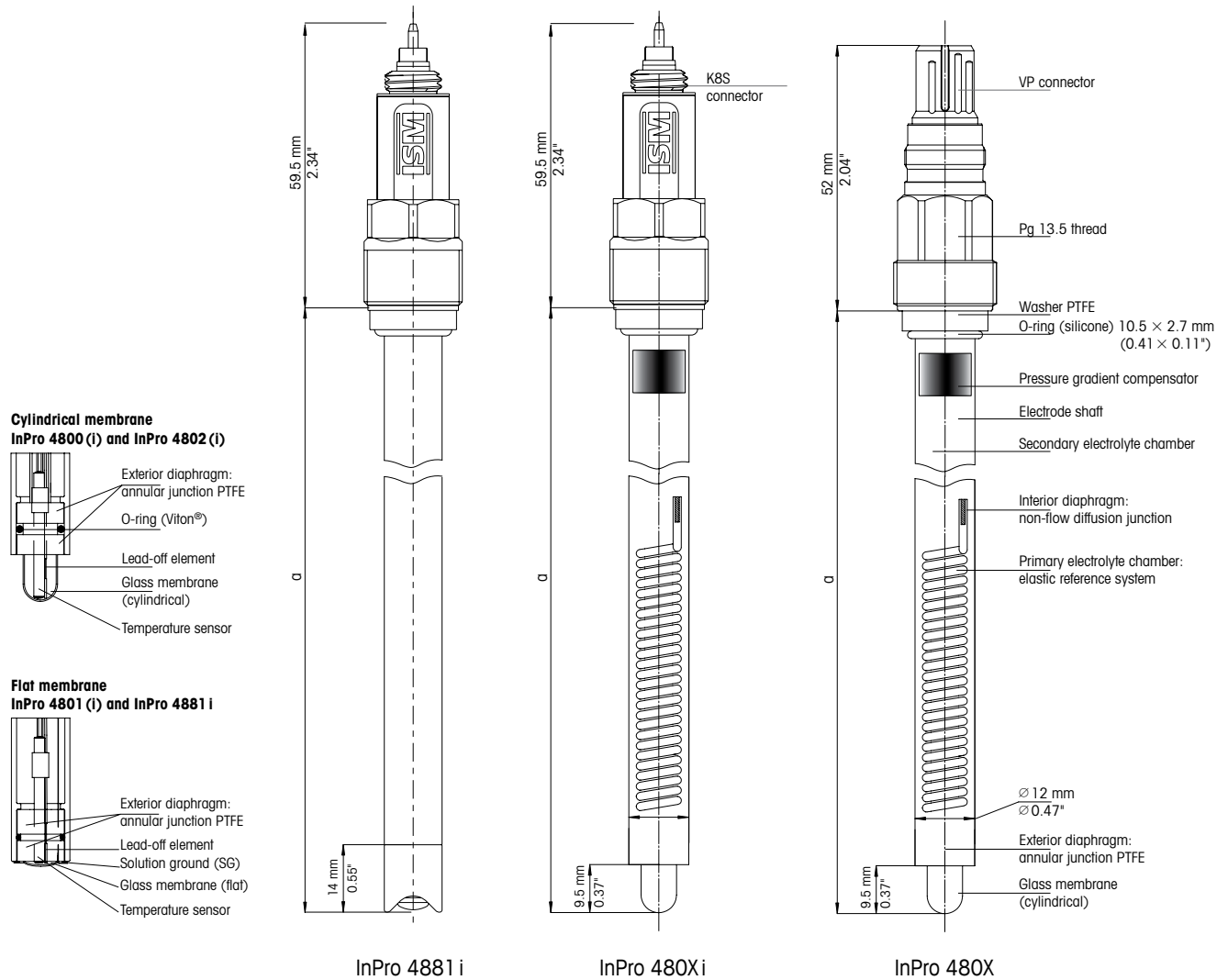
ISM Electrodes	Length	Temp. Signal	Order Number
InPro 4800i/SG	120mm	Digital	52 005 383
InPro 4800i/SG	225mm	Digital	52 005 384
InPro 4800i/SG	425mm	Digital	52 003 748
InPro 4801 i/SG	120mm	Digital	52 003 581
InPro 4801 i/SG	425mm	Digital	52 003 857

ISM Electrodes	Length	Temp. Signal	Order Number
InPro 4802i/SG	120mm	Digital	52 003 696
InPro 4802i/SG	225mm	Digital	52 003 697
InPro 4881 i/SG	120mm	Digital	30 301 405
InPro 4881 i/SG	225mm	Digital	30 301 406
InPro 4881 i/SG	425mm	Digital	30 301 407

Analog Electrodes	Length	Temp. Signal	Order Number
InPro 4800	120mm	Pt100	52 002 124
InPro 4800	120mm	Pt1000	52 002 125
InPro 4800SG	120mm	Pt100	52 003 541
InPro 4800SG	120mm	Pt1000	52 003 542
InPro 4800	225mm	Pt100	52 002 126
InPro 4800	225mm	Pt1000	52 002 127
InPro 4800SG	225mm	Pt100	52 003 543

Analog Electrodes	Length	Temp. Signal	Order Number
InPro 4800SG	225mm	Pt1000	52 003 544
InPro 4800	425mm	Pt100	52 002 129
InPro 4800	425mm	Pt1000	52 002 130
InPro 4801SG	120mm	Pt100	52 002 131
InPro 4801SG	120mm	Pt1000	52 002 132
InPro 4802	225mm	Pt100	52 002 718

Drawings



METTLER TOLEDO Market Organizations

Sales and Service:

Australia

Mettler-Toledo Limited
220 Turner Street
Port Melbourne, VIC 3207
Australia
Phone +61 1300 659 761
e-mail info.mtaus@mt.com

Austria

Mettler-Toledo Ges.m.b.H.
Laxenburger Str. 252/2
AT-1230 Wien
Phone +43 1 607 4356
e-mail prozess@mt.com

Brazil

Mettler-Toledo Ind. e Com. Ltda.
Avenida Tamboré, 418
Tamboré
BR-06460-000 Barueri/SP
Phone +55 11 4166 7400
e-mail mtbr@mt.com

Canada

Mettler-Toledo Inc.
2915 Argentia Rd #6
CA-ON L5N 8G6 Mississauga
Phone +1 800 638 8537
e-mail ProlnsideSalesCA@mt.com

China

Mettler-Toledo International Trading
(Shanghai) Co. Ltd.
589 Gui Ping Road
Cao He Jing
CN-200233 Shanghai
Phone +86 21 64 85 04 35
e-mail ad@mt.com

Croatia

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

Czech Republic

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

Denmark

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

France

Mettler-Toledo
Analyse Industrielle S.A.S.
30, Boulevard de Douaumont
FR-75017 Paris
Phone +33 1 47 37 06 00
e-mail mtpro-f@mt.com

Germany

Mettler-Toledo GmbH
Prozeßanalytik
Ockerweg 3
DE-35396 Gießen
Phone +49 641 507 444
e-mail prozess@mt.com

Great Britain

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

Hungary

Mettler-Toledo Kereskedelmi KFT
Teve u. 41
HU-1139 Budapest
Phone +36 1 288 40 40
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
e-mail sales.mtin@mt.com

Indonesia

PT. Mettler-Toledo Indonesia
GRHA PERSADA 3rd Floor
Jl. KH. Noer Ali No.3A,
Kayuringin Jaya
Kalimalang, Bekasi 17144, ID
Phone +62 21 294 53919
e-mail
mt-id.customersupport@mt.com

Italy

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

Japan

Mettler-Toledo K.K.
Process Division
6F Ikenohata Nisshoku Bldg.
2-9-7, Ikenohata
Taito-ku
JP-110-0008 Tokyo
Phone +81 3 5815 5606
e-mail helpdesk.ing.jp@mt.com

Malaysia

Mettler-Toledo (M) Sdn Bhd
Bangunan Electroscon Holding, U 1-01
Lot 8 Jalan Astaka U8/84
Seksyen U8, Bukit Jelutong
MY-40150 Shah Alam Selangor
Phone +60 3 78 44 58 88
e-mail
MT-MY.CustomerSupport@mt.com

Mexico

Mettler-Toledo S.A. de C.V.
Ejército Nacional #340
Polanco V Sección
C.P. 11560
MX-México D.F.
Phone +52 55 1946 0900
e-mail mt.mexico@mt.com

Norway

Mettler-Toledo AS
Ulvenveien 92B
NO-0581 Oslo Norway
Phone +47 22 30 44 90
e-mail info.mtn@mt.com

Poland

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

Russia

Mettler-Toledo Vostok ZAO
Sretenskij Bulvar 6/1
Office 6
RU-101000 Moscow
Phone +7 495 621 56 66
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
e-mail
mt.sg.customersupport@mt.com

Slovakia

Mettler-Toledo s.r.o.
Hattalova 12/A
SK-831 03 Bratislava
Phone +421 2 4444 12 20-2
e-mail predaj@mt.com

Slovenia

Mettler-Toledo d.o.o.
Pot heroja Trtnika 26
SI-1261 Ljubljana-Dobrunje
Phone +386 1 530 80 50
e-mail keith.racman@mt.com

South Korea

Mettler-Toledo (Korea) Ltd.
1 & 4 F, Yeil Building 21
Yangjaecheon-ro 19-gil
SeoCho-Gu
Seoul 06753 Korea
Phone +82 2 3498 3500
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 +34 902 32 00 23
e-mail mtemkt@mt.com

Sweden

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

Switzerland

Mettler-Toledo (Schweiz) GmbH
Im Langacher, Postfach
CH-8606 Greifensee
Phone +41 44 944 47 60
e-mail ProSupport.ch@mt.com

Thailand

Mettler-Toledo (Thailand) Ltd.
272 Soi Soonvijai 4
Rama 9 Rd., Bangkokpi
Huay Kwang
TH-10320 Bangkok
Phone +66 2 723 03 00
e-mail
MT-TH.CustomerSupport@mt.com

Turkey

Mettler-Toledo Türkiye
Haluk Türksoy Sokak No: 6 Zemin ve 1.
Bodrum Kat 34662 Üsküdar-İstanbul, TR
Phone +90 216 400 20 20
e-mail sales.mtrtr@mt.com

USA

METTLER TOLEDO
Process Analytics
900 Middlesex Turnpike, Bld. 8
Billerica, MA 01821, USA
Phone +1 781 301 8800
Freephone +1 800 352 8763
e-mail mtprous@mt.com

Vietnam

Mettler-Toledo (Vietnam) LLC
29A Hoang Hoa Tham Street, Ward 6
Binh Thanh District
Ho Chi Minh City, Vietnam
Phone +84 8 35515924
e-mail
MT-VN.CustomerSupport@mt.com



Management System
certified according to
ISO 9001 / ISO 14001

Subject to technical changes.
04/2016. © Mettler-Toledo GmbH
Printed in Switzerland. 52 002 193

Mettler-Toledo GmbH, Process Analytics
Im Hackacker 15, CH - 8902 Urdorf, Switzerland
Phone + 41 44 729 62 11, Fax +41 44 729 66 36

www.mt.com/pro