

InPro® 4501 VP / InPro® 4501 fixed cable

The combined pH/temperature electrode with robust PVDF shaft

Technical data



InPro 4501 VP InPro 4501
fixed cable

Short description

METTLER TOLEDO offers the improvements of the successful XEROLYT® PLUS polymer reference system also for the robust pH-electrode version with PVDF shaft. The electrode InPro4501, with VP connector or fixed cable, provides the following advantages, where direct mounting and robust design are extra appreciated:

- Covers a broad range of applications in chemical processes and wastewater utilities.
- Low maintenance due to the solid polymer reference system, and due to the open annular junction.
- No mechanical breakage of the electrode due to the PVDF body and the flat membrane with protective stand-offs.
- Dual 1" NPT threads allow the sensor to be screwed directly into immersion tubes, pipes, process vessels etc.
- Particularly suitable for heavily contaminating and sulphide-bearing media.

New! – Higher performance measurement, in a wider pH and temperature range (refer to specifications on next page).

New! – Solution ground with improved function, now also providing diagnostics.

New! – Improved connector design for fixed cable version, now with a metallic material to eliminate electro magnetic interference from external sources.

New! – Integrated temperature sensor, now positioned inside the glass membrane part offers increased performance.

Contents

Specifications	2
Ordering information	2
pH-electrodes / cables / pH buffer solutions	2
Compatibility with METTLER TOLEDO transmitters	3
Drawing/diagram	3

METTLER TOLEDO

Specifications

Measuring range	pH 1...14 (with reduced life time and performance by pH 12...14)
Temperature	0...100 °C or 32...212 °F (with reduced life time and performance by temperatures over 85 °C or 185 °F)
Pressure resistance*	0...7 bar up to 65 °C, linearity derated to 3.5 bar at 100 °C 0...100 psi up to 150 °F, linearity derated to 50 psi at 212 °F
Reference system	reference system XEROLYT PLUS polymer incl. KCl
Diaphragm	open annular junction with direct contact with medium
Shaft	material: Polymer PVDF, Ø 1.12 " or 33.5 mm
Plug head	VarioPin (VP) IP 68, resp. fixed cable

* please refer to the diagram on page 3

Ordering information

pH electrodes

VP connector:	Order no.
InPro 4501 VP/Pt 100/SG	41 453 3101
InPro 4501 VP/Pt 1000/SG	41 453 3102

with fixed cable:	Order no.
InPro4501/Pt 100/SG/3m/S/T	10 453 3007
InPro4501/Pt 1000/SG/3m/S/T	10 453 3011
InPro4501/Pt 100/SG/3m/BNC	10 453 3008

InPro4501/Pt 100/SG/10m/S/T	10 453 3013
InPro4501/Pt 1000/SG/10m/S/T	10 453 3017

Accessories

Protective sleeve*	Order no.
1" NPT complete	52 401 808

* protects the VP and the fixed cable connector from any mechanical damage

Cables (open ends) - only for VP connector

Standard temperature (-20...80 ° C)	Order no. VP6-ST/3 m	Order no. VP6-ST/5 m	Order no. VP6-ST/10 m
	52 300 108	52 300 109	52 300 110
High temperature (-30...140 ° C)	Order no. VP6-HT/3 m	Order no. VP6-HT/5 m	Order no. VP6-HT/10 m
	52 300 112	52 300 113	52 300 114

Buffer solutions

Solution	Order no. 1 x 250 ml	Order no. 6 x 250 ml	Order no. 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
Friscolyt™ conditioning solution	51 340 053		



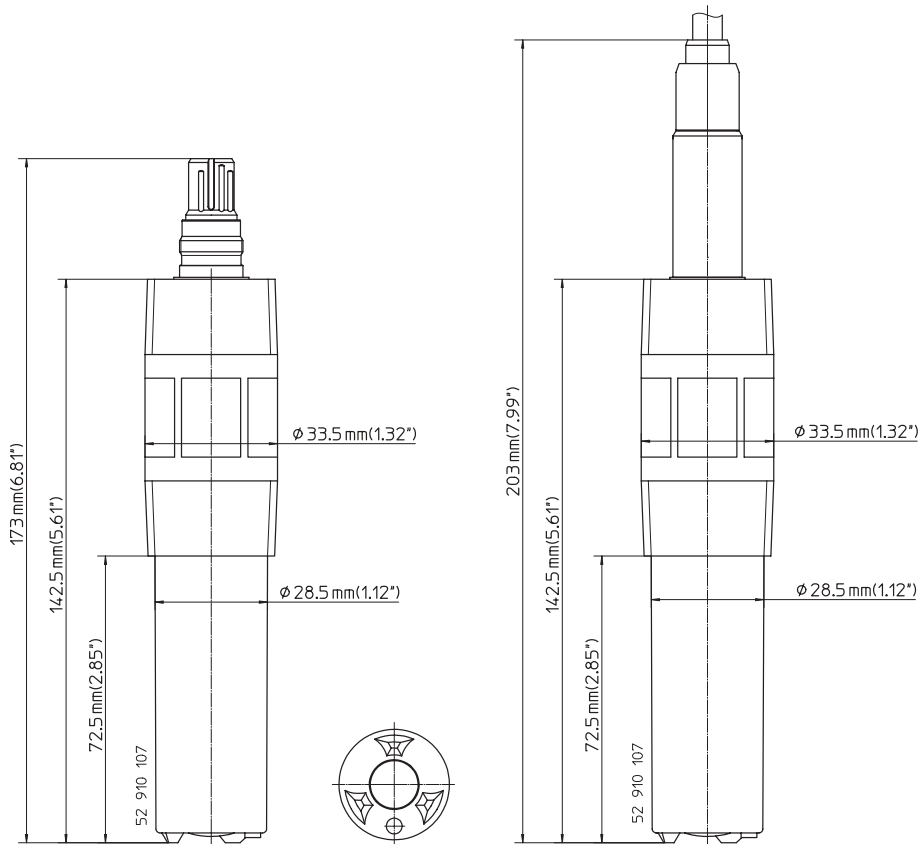
Transmitters

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 (EEx) design.

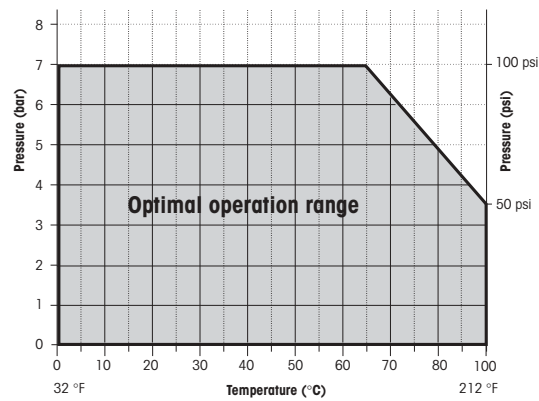
Drawing

InPro 4501VP

InPro 4501 fixed cable



Operation range



METTLER TOLEDO Market Organizations

Sales and Service:

Australia

Mettler-Toledo Ltd.
220 Turner Street
Port Melbourne
AUS-3207 Victoria
Phone +61 39 644 57 00
Fax +61 39 645 39 35
e-mail mtausprocess@mt.com

Austria

Mettler-Toledo GmbH
Favoritner Gewerberg 17
A-1100 Wien
Phone +43 1 604 19 80
Fax +43 1 604 28 80
e-mail infoprocess.mtat@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

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 Sàrl
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

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 Electroscon Holding
Lot 8 Jalan Astaka U8/84
Seksyen U8, Bukit Jelutong
MY-40150 Shah Ahm Selangor
Malaysia
Phone +60 3 78 45 57 73
Fax +60 3 78 45 87 73
e-mail ahmad.rashid@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 5 541 33 00
Fax +52 5 541 04 02
e-mail mario.roca@mt.com

Poland

Mettler-Toledo (Poland) Sp.z.o.o.
ul. Iwonicka 39
PL-02-924 Warszawa
Phone +48 22 651 92 32
Fax +48 22 651 71 72
e-mail polska@mt.com

Russia

Mettler-Toledo 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 +421 743 42 74 96
Fax +421 743 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

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 1 944 45 45
Fax +41 1 944 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., Bangkok
Kuay Kwang
TH-10320 Bangkok
Phone +66 2 723 03 00
Fax +66 2 719 64 79
e-mail mettler@samarit.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 mtprous@mt.com
ingold@mt.com



Management System
certified according to
ISO 9001 / ISO 14001

Subject to technical changes.
© Mettler-Toledo GmbH 01/04
Printed in Switzerland 52 002 394

Mettler-Toledo GmbH, Process Analytics
Industrie Nord, CH-8902 Urdorf
Tel. +41 1 736 22 11, Fax +41 1 736 26 36

www.mtpro.com