

# InPro® 7250 Series

Highly resistant inductive conductivity sensors for applications in the chemical and pulp & paper industry as well as in the field of industrial effluent treatment

## Technical data

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InPro 7250

### Short description

The new InPro 7250 Series of inductive conductivity sensors from METTLER TOLEDO is designed for in-line measurements of conductivity/concentration levels of acids, bases and salts in liquid media. Main fields of application are in the chemical industry (CPI), pulp and paper processes, as well as monitoring industrial effluents.

### Outstanding features are:

- Attractive price/performance ratio
- Highest measuring accuracy
- Wide measurement range 0...2000 mS/cm
- Integrated Pt1000 temperature sensor
- Broad temperature range tolerance up to 180 °C (356 °F)
- PFA-version for heavy-duty chemical applications
- Approval for use in hazardous zones
- Insensitive to sensor fouling

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**METTLER TOLEDO**

Sensor specifications InPro 7250 series

	InPro 7250 ST / HT	InPro 7250 PFA
Measuring principle	inductive	inductive
<b>Sensor data</b>		
Measuring range	0...2000 mS/cm	0...2000 mS/cm
Measurement value deviation	ST: ± (0.5 % of measured value + 25 µS) HT: ± (0.5% of measured value + 1 µS)	± (0.5% of measured value + 25 µS)
Cell factor nominal <sup>1)</sup>	2.175	2.30
Transfer ratio	120	120
Temperature sensor	Pt 1000	Pt 1000
Temperature response (t <sub>90</sub> )	approx. 5 min	approx. 5 min
<b>Ambient conditions <sup>2)</sup></b>		
Process temperature (general purpose)	ST: -20 °C...+100 °C (-4 °F...+212 °F) HT: -20 °C...+180 °C (-4 °F...+356 °F)	-20 °C...+125 °C (-4 °F...+257 °F)
Process temperature (in Ex installation)	ST: - HT: -20 °C...+130 °C (-4 °F...+266 °F)	-20 °C...+125 °C (-4 °F...+257 °F)
Process pressure <sup>3)</sup>	ST: max. 8 bar (max. 116 psi) HT: max. 20 bar (max. 290 psi)	max. 16 bar (max. 232 psi)
<b>Sensor materials</b>		
Sensor (medium wetted) <sup>4)</sup>	PEEK glass filled (GF30)	PFA not glass filled
Sensor mounting thread (G ¾")	stainless steel	stainless steel
O-ring	Viton®	FEP
Flat gasket	Viton®	PTFE
<b>Cable</b>		
Type	ST: single coaxial cable HT: double coaxial cable	single coaxial cable
Cable jacket	ST: PVC HT: silicone	PVC
Available cable lengths	3, 5 and 10 m (9.8, 16.4 and 32.8 ft)	3, 5 and 10 m (9.8, 16.4 and 32.8 ft)
<b>Approvals and certificates</b>		
ATEX	ST: - HT: •	- •
FM	ST: - HT: •	- •
Quality/End control	•	•

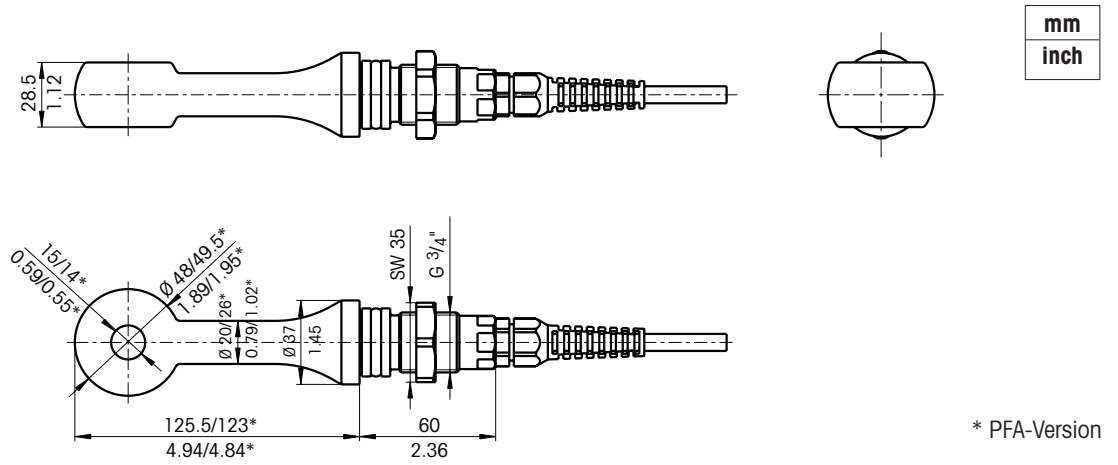
1) This value depends on the installation. The exact value must be determined with a calibration.

2) The combination of high pressure, high temperature and/or aggressive process medium might reduce the sensor life time.

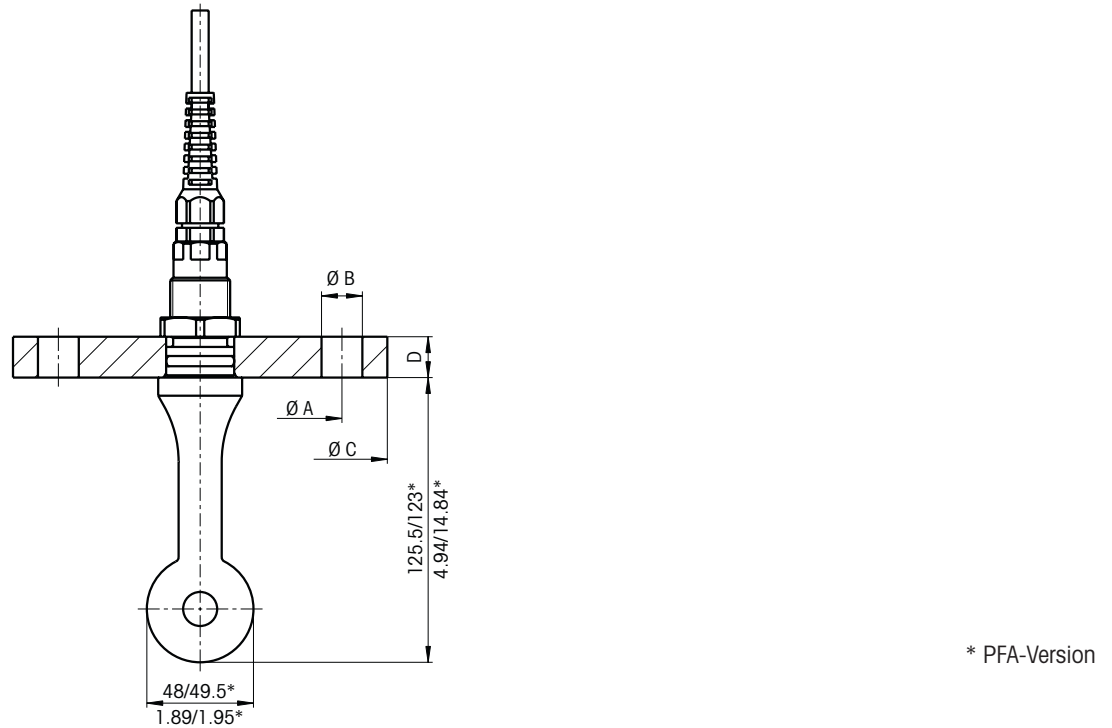
3) Depending on the installation.

4) This material is not FDA listed.

InPro 7250 series - sensor dimensions

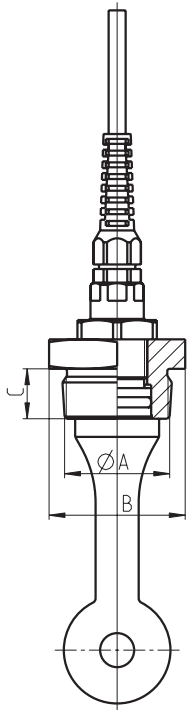


InPro 7250 series - flange dimensions



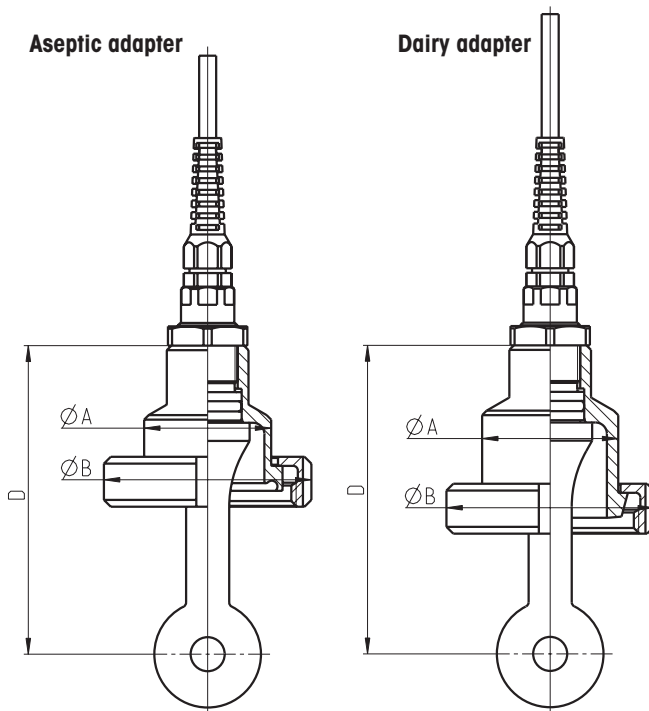
Designation	Ø A	Ø B	Ø C	D
Flange DN50/PN16	125 (4.92")	4x18 (0.71")	165 (6.50")	18 (0.71")
Flange DN100/PN16	180 (7.09")	8x18 (0.71")	220 (8.66")	20 (0.79")
Flange ANSI 2"	120.7 (4.75")	4x19.1 (0.75")	152.4 (6.00")	19.1 (0.75")
Flange ANSI 3"	152.4 (6.00")	4x19.1 (0.75")	190.5 (7.50")	23.9 (0.94")

InPro 7250 series - bushing dimensions



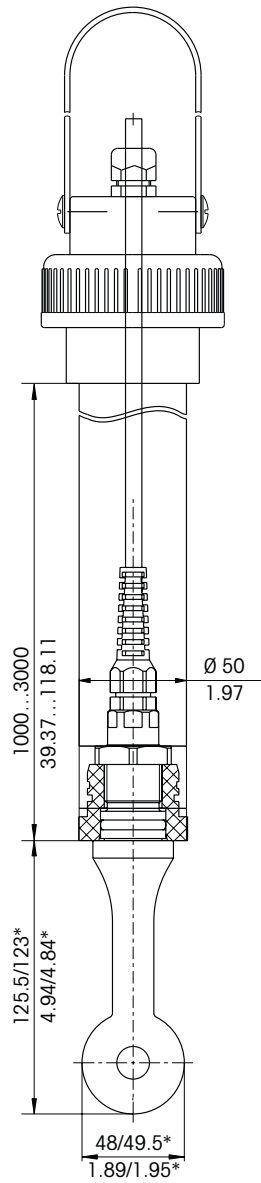
Designation	$\varnothing A$	B	C
Threaded bushing R 1 1/2"	R 1 1/2"	SW60	22 (0.87")
Threaded bushing R 1 1/2" PVDF	R 1 1/2"	SW60	22 (0.87")
Threaded bushing R 2"	R 2"	SW75	24 (0.95")
Threaded bushing R 2" PVDF	R 2"	SW75	24 (0.95")
Threaded bushing 1 1/2" NPT	1 1/2" NPT	SW60	22 (0.87")
Threaded bushing 1 1/2" NPT PVDF	2" NPT	SW60	22 (0.87")
Threaded bushing 2" NPT	2" NPT	SW75	24 (0.95")
Threaded bushing 2" NPT PVDF	2" NPT	SW75	24 (0.95")

InPro 7250 series - sanitary adapter dimensions



Designation	DIN	$\varnothing A$	$\varnothing B$	D
Dairy adapter DN50	11851	60 (2.36")	92 (3.62")	136 (5.35")
Aseptic adapter DN50	11864-1	56 (2.20")	92 (3.62")	136 (5.35")

InPro 7250 series - InDip 550 Ind



\* PFA-Version

Designation
InDip 550Ind PVC (1000...3000 mm/ 39.37...118.11")
InDip 550Ind PVDF (1000...3000 mm/ 39.37...118.11")

## Sensors InPro 7250 series

Designation	Order no.
InPro 7250ST/Pt1000/3 m	52 002 736
InPro 7250ST/Pt1000/5 m	52 002 737
InPro 7250ST/Pt1000/10 m	52 002 738
InPro 7250HT/Pt1000/3 m	52 002 739
InPro 7250HT/Pt1000/5 m	52 002 740
InPro 7250HT/Pt1000/10 m	52 002 741
InPro 7250PFA/Pt1000/3 m	52 005 423
InPro 7250PFA/Pt1000/5 m	52 005 424
InPro 7250PFA/Pt1000/10 m	52 005 425

## Recommended process connection and accessories

Flanges	
Flange DN 50/PN 16	52 403 565
Flange DN 100/PN 16	52 403 566
Flange ANSI 2"	52 403 567
Flange ANSI 3"	52 403 569
Flange DN 50/PN 16, PVDF, only for PFA version	52 403 946
Flange ANSI 2", incl. sealing plate PTFE	52 403 947

Threaded bushings	
Threaded bushing R 1 ½"	52 403 446
Threaded bushing R 1 ½" PVDF	52 403 447
Threaded bushing R 2"	52 403 448
Threaded bushing R 2" PVDF	52 403 449
Threaded bushing 1 ½" NPT	52 403 450
Threaded bushing 1 ½" NPT PVDF	52 403 451
Threaded bushing 2" NPT	52 403 452
Threaded bushing 2" NPT PVDF	52 403 453

Sanitary adapters	
Dairy adapter DN 50	52 403 583
Aseptic adapter DN 50	52 403 584

Housings	
InDip 550Ind PVC	52 403 579
InDip 550Ind PVDF	52 403 580

Please note that the InDip 550 is available in a wide variety of materials and lengths. Please refer to the technical data of the InDip 550 or ask your local METTLER TOLEDO representative.

## Recommended transmitters

Transmitter M700(x), module cond Ind 7700 (x)	Designation	Order no.
Transmitter base, ss (no modules)	M700S	52 121 174
Transmitter base, ss, Ex, VPW*, 100...230 VAC	M700XS/VPW	52 121 175
Transmitter base, ss, Ex, 24 VAC/DC	M700XS/24 V	52 121 176
Transmitter base, coated (no modules)	M700C	52 121 171
Transmitter base, coated, Ex, VPW*, 100...230 VAC	M700XC/VPW	52 121 172
Transmitter base, coated, Ex, 24 VAC/DC	M700XC/24 V	52 121 173

\* VPW = VariPoWer

Conductivity (Inductive) measurement module	Designation	Order no.
Conductivity (inductive) measurement module	Cond Ind 7700	52 121 186
Conductivity (inductive) measurement module, Ex	Cond Ind 7700X	52 121 187

Transmitter M400 (4-wire transmitter)	Order no.
M400, Type 1 cond Ind	52 121 495

## Spare parts

Designation	Order no.
O-ring Viton®	52 750 171
Flat gasket Viton®	52 403 432
Hexagon nut (stainless steel)	52 403 433
O-ring FEP	52 750 192
Flat gasket PTFE	52 403 833

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Management System  
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ISO 9001 / ISO 14001

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Printed in Switzerland. 52 900 779

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