

InFit 762 e/763 e – The insertion housings for medium and large vessels

Technical data



InFit 76Y e (steel version)

Short description

The static insertion housing InFit® 762 e allows quick and easy installation of electrodes and sensors with Pg 13.5 thread. This allows the use of a large range of pH/redox electrodes with solid or gel-type reference electrolyte as well as sensors for measuring conductivity, turbidity, dissolved oxygen and CO₂ in applications used in the chemical and pharmaceutical industry (even in hazardous areas).

The static insertion housing InFit 763 e provides quick and easy integration of pressurized pH/redox electrodes with liquid reference electrolyte into applications of the chemical and pharmaceutical .

The housings feature the following highlights:

- vertical installation into vessels and reactors
- use of electrodes/sensors with standard length (120 mm or 150 mm)
- variable insertion length for installation in vessels and reactors
- wide range of process connections
- large choice of materials for wetted parts, depending on process requirements
- optional protective cage for electrode protection in abrasive media
- conformity with EX and PED standards

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General operation of the housing

The InFit 762 e and InFit 763 e insertion housings for vertical installation in reactors act as a support for electrodes and sensors for measuring pH and redox as well as dissolved oxygen, CO₂, turbidity and conductivity in industrial environments. The use of plug-type connectors facilitates the replacement of electrodes and the electrode cable can be used repeatedly.

The generic term InFit76Y e Series used in this document refers to:

- **InFit 762 e** – insertion housing for pH/redox electrodes with gel-type or polymer electrolyte, O₂, CO₂, conductivity and turbidity sensors (with 12 mm diameter and Pg 13.5 thread).
- **InFit 763 e** – insertion housing for pressurized pH/redox electrodes with liquid electrolyte (such as InPro 2000).

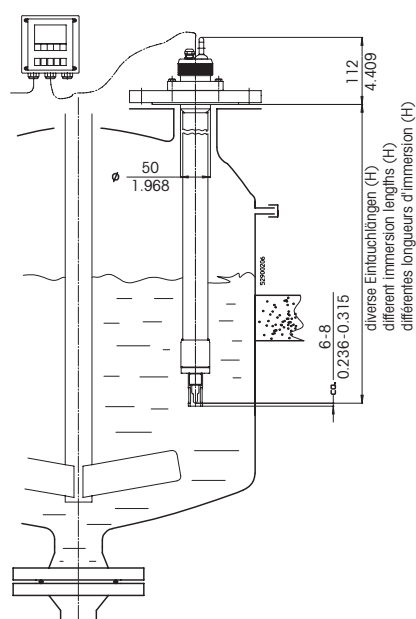
Using a combination electrode with sensor length $a = 120$ mm (InFit 76Y e) or 150 mm (InFit 763 e only) electrode fitting is independent from the insertion length (H), see section «Suitable electrodes/sensors» on page 12.

For the InFit 763 e housing (PVDF version) we recommend using a protective tube (see illustration on page 4). With the InFit 763 e PVDL version (PVDF antistatic) the tube is reinforced by a built-in stainless steel pipe that is not in contact with the medium.

Note: Housings suitable for operation in hazardous areas carry a respective symbol on their type plate. Housings that do not carry this additional marking are not admissible for use in hazardous areas.

All medium wetted parts of the housing are available in stainless steel according to DIN 1.4404/316L, DIN 2.4602/Alloy C22 or titanium, or (for InFit 763 e only) made of untreated PVDF and antistatic PVDF (PVDL) plastics. The head (top piece) is made of antistatic PP and nickel-plated brass. The O-ring seals between the housing and the medium are made of Viton® (FKM), Kalrez® (FFKM) and EPDM and the sealing plate is made of PTFE; all other O-rings are made of Nitril or silicone (MVQ).

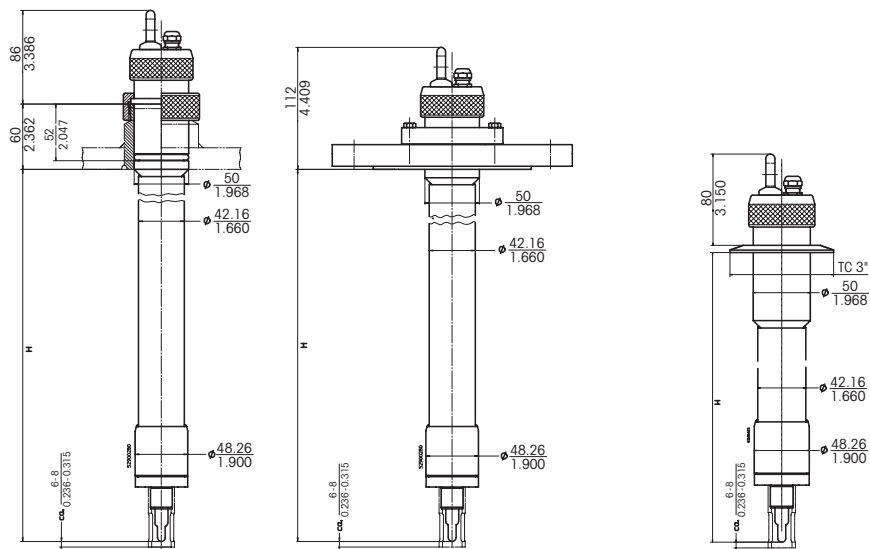
Complete measuring system



Complete measuring system InFit 76Y e

Dimensional drawings InFit 762 e

Dimensions mm	
(approx.)	inch

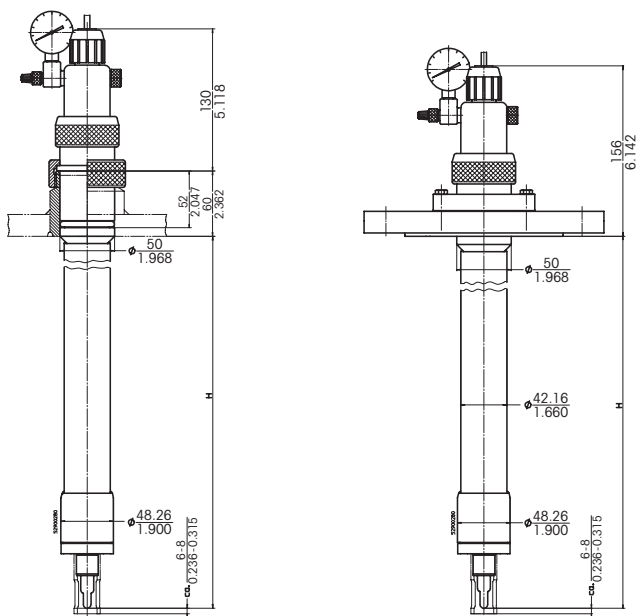


InFit 762 e with electrode/sensor (Pg 13.5 thread):

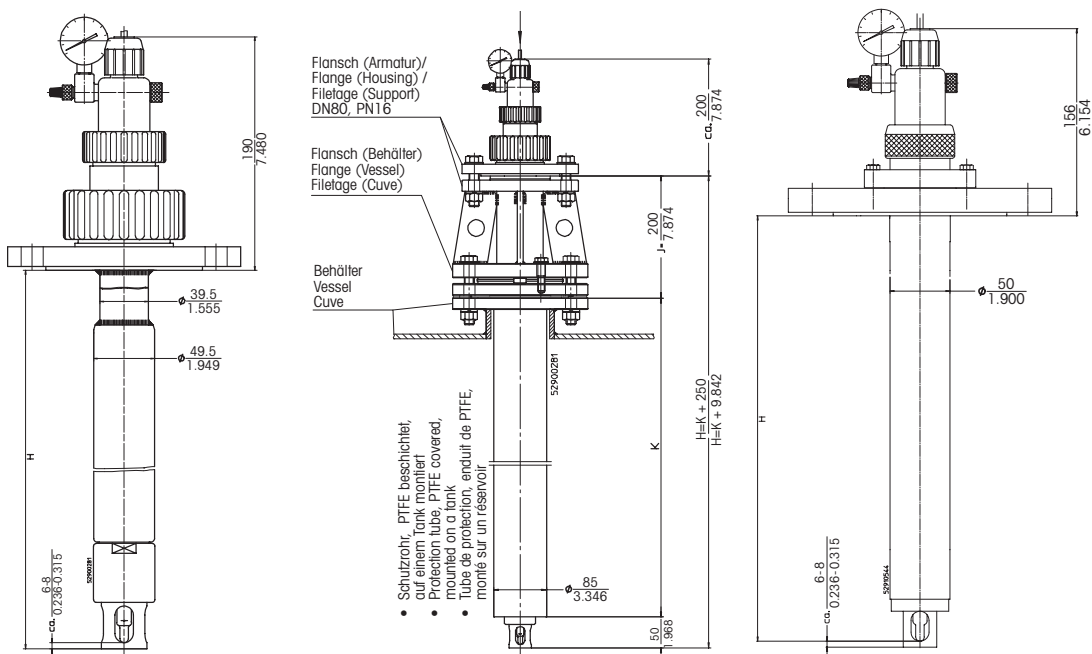
Installation with cap nut in weld-in socket (left), installation with flange (middle) and installation with Tri-Clamp adaption (right).

For immersion lengths (H) and appropriate sensor lengths please refer to section «Suitable electrodes/sensors» on page 12.

Dimensions mm
(approx.) inch



Installation with cap nut in weld-in socket (left), installation with flange (right).

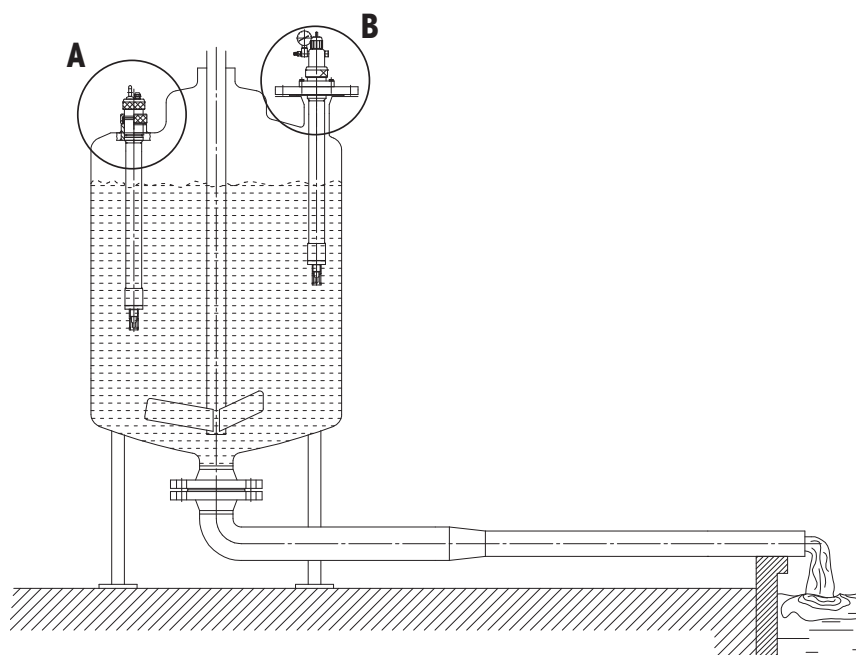


InFit 763 e plastic version PVDF (left), plastic version with mounted protection tube (middle) and plastic version PVDL [PVDF antistatic] (right).

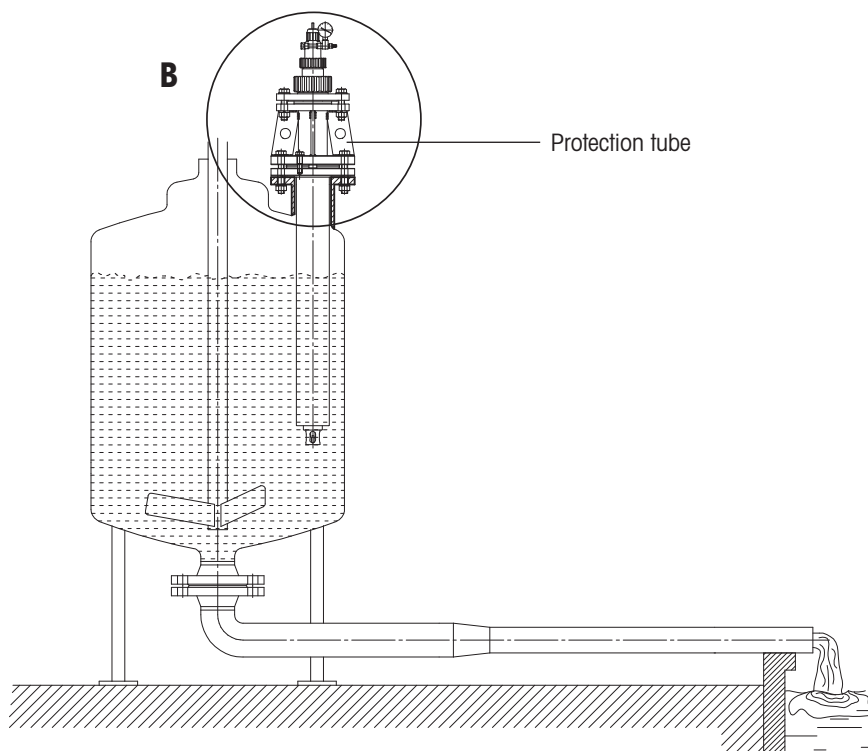
For immersion lengths (H) and appropriate sensor lengths please refer to section «Suitable electrodes/sensors» on page 12.

Possible installations

The housings are mounted to a weld-in socket with a cap nut **(A)** or to a vessel using a flange connection **(B)**.



Admissible mounting position InFit 76Y e



Admissible mounting position InFit 763 e (PVDF version) with flange and optional protection tube

Note: In case of excessive forces from stirring or gravitation prop the housing with an additional support.

Process connections

InFit 762 e / InFit 763 e housing (steel and PVDL version)

A	Cap nut DN50 G 2" for weld-in socket L= 60/DN50/straight (steel version only)
B	Flange DIN DN50-PN16
	Flange DIN DN80-PN16
	Flange DIN DN100-PN16
	Flange A150-2"/150 lbs
	Flange A150-3"/150 lbs
	Flange A150-4"/150 lbs
	Flange JIS 10K 80
	Tri-Clamp 3" straight (steel version only)

InFit 763 e housing (PVDF version)

A	Cap nut M80 x 3 mm
B	Flange DIN DN65-PN16
	Flange DIN DN80-PN16
	Flange A150-3"/150 lbs
	Flange A150-4"/150 lbs

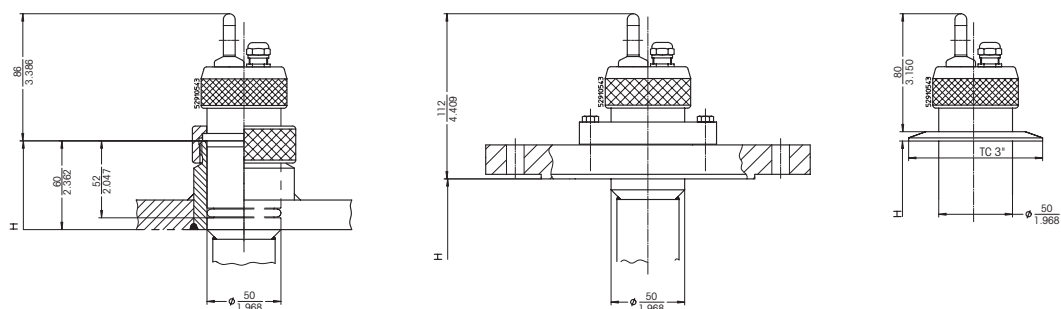
Protection tube

Flange (vessel)*	Flange DIN DN100-PN16	with flange (housing): DIN DN80 - PN16**
	Flange DIN DN150-PN16	with flange (housing): DIN DN80 - PN16**

* Other flange adaptations available on demand.

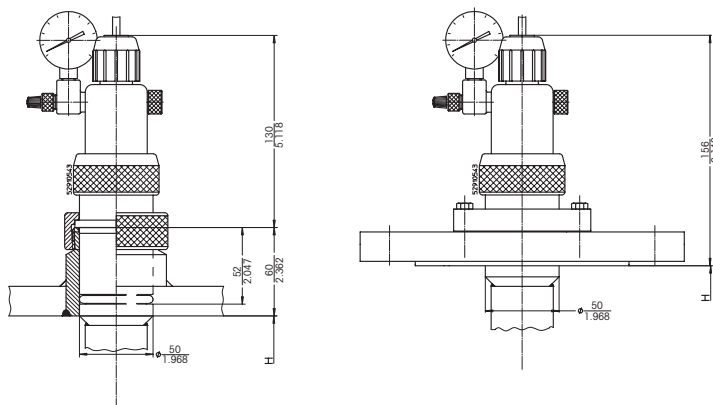
** See dimensional drawing on page 4, flange (vessel).

Process connections



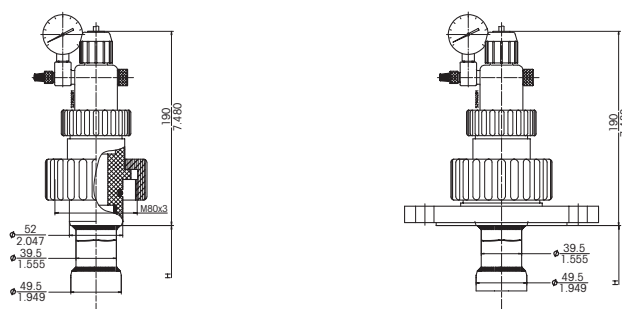
Process connections InFit 762 e

with weld-in socket (left), with flange (middle) and Tri-Clamp adaption (right)



Process connections InFit 763 e (steel and PVDL version)

with weld-in socket (left) and with with flange (middle)



Process connections InFit 763 e (PVDF version)

without flange with cap nut M80 x 3 (left) and with flange (right)

Technical specifications InFit 762 e

Note: the technical specifications of the installed sensor must be taken into consideration.

Ambient conditions

Temperature	-30...80 °C
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Process conditions

Housing	Material	Max. admissible pressure [PS]/[TS]:
InFit 762	DIN 1.4404/AISI 316L DIN 2.4602/AISI Alloy C22, Ti	6 bar / 130 °C

Immersion length	Immersion lengths and appropriate sensor lengths, see section «Suitable electrodes/sensors» on page 12
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Wetted materials	DIN 1.4404/AISI 316L, DIN 2.4602/Alloy C22, titanium
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Wetted seals	Viton (FKM)-FDA, EPDM-FDA, Kalrez (FFKM)-FDA USP Class VI
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Non-wetted materials

InFit 762/xG* version	Sealing plate: Cover: Cable gland: Eye bolt M8:	PTFE stainless steel brass, nickel-plated steel, bright nickel-plated
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InFit 762/xL* version	Sealing plate: Cover: Cable gland: Counter nut:	PTFE stainless steel plastic stainless steel
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Weight	starting from approx. 4 kg
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Pressure information	According to PED 97/23/CE Article 1, Section 2.2: «Pressure» is referenced to atmospheric pressure, e.g. an overpressure. Accordingly, a pressure in the vacuum region will be expressed as a negative pressure.
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* see «Product key» page 13

Explosion protection

(Applicable for all housings
with wetted parts made of metal)

According to ATEX directives (94/9/EG):

⊕ II 1/2 G c IIC TX Ga/Gb

⊕ II 1/2 D c IIIC TX Da/Db

SEV 13 ATEX 0161 X

According to FM directives:

IS CL I,II,III, Div 1, GR A,B,C,D,E,F,G

Tamb. = 0 °C to +60 °C,

indoor and outdoor environments.

FM control drawing: 53800002;

Original project ID 3021227;

FM Certificate number: FM16US0034X

**Certificates /
approvals**

- Depending on housing model, following certificates/approvals are included:
- CE Declaration of Conformity
- Pressure Equipment directive
- Certificate of Conformity according to EN10204 2.1, material certificate according to 3.1B
- ATEX directive
- FM Class 3600, 3610, 3810
- MaxCert™

Appropriate

types of electrodes

see section «Suitable electrodes/sensors» on page 12

For more detailed information regarding electrodes and sensors please refer to the corresponding data sheets or contact your METTLER TOLEDO representative.

Technical specifications InFit 763 e

Note: the technical specifications of the installed sensor must be taken into consideration.

Ambient conditions

Temperature 0...70 °C

Process conditions

Housing	Material	Max. admissible pressure [PS]/[TS]: (linear relation with plastic housings)
InFit 763	DIN 1.4404/AISI 316L	
	DIN 2.4602/AISI	
	Alloy C22, Ti	6 bar / 130 °C
	PVDF	10 bar / 40 °C
		2 bar / 130 °C
	PVDL (PVDF antistatic)	6 bar / 130 °C

Immersion length Immersion lengths and appropriate sensor lengths,
see section «Suitable electrodes/sensors» on page 12

Wetted materials DIN 1.4404/AISI 316L,
DIN 2.4602/Alloy C22, titanium,
PVDF, PVDL (Polyvinylidene fluoride antistatic PVDF)

Wetted seals Viton (FKM)-FDA,
EPDM-FDA,
Kalrez (FFKM)-FDA USP Class VI

Non-wetted materials

Top piece:	nickel-plated brass, Polypropylene (PP) antistatic
Sensor holder:	PVDF
Sealing plate:	PTFE

Weight starting from approx. 4 kg

Pressure information According to PED 97/23/CE Article 1, Section 2.2:
«Pressure» is referenced to atmospheric pressure, e.g. an overpressure.
Accordingly, a pressure in the vacuum region will be expressed as a
negative pressure.

Explosion protection

(Applicable for all housings
with wetted parts made of metal)

According to ATEX directives (94/9/EG):

II 1/2 G c IIC TX Ga/Gb

II 1/2 D c IIIC TX Da/Db

SEV 13 ATEX 0161 X

According to FM directives:

IS CL I,II,III, Div 1, GR A,B,C,D,E,F,G

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Appropriate

types of electrodes

see section «Suitable electrodes/sensors» on page 12

For more detailed information regarding electrodes and sensors please refer to the corresponding data sheets or contact your METTLER TOLEDO representative.

Suitable electrodes/sensors

InFit 762 e

	α-Length of the electrodes/sensors
	120 mm
pH	DPA/DPAS, DXK, InPro 3030, InPro 3100, InPro 3200, InPro 3250, InPro 4250, InPro 4800
Redox	Pt4805
Oxygen	InPro 6800
CO ₂	InPro 5000
Conductivity	InPro 7001-VP
Turbidity	InPro 8100, InPro 8200

InFit 763 e (steel and PVDL version)¹⁾

	α-Length of the electrodes/sensors
	120 mm or 150 mm
pH	465-50, InPro 2000
Redox	Pt4865-50

InFit 763 e (PVDF version)

	α-Length of the electrodes/sensors
	120 mm
pH	465-50, InPro 2000
Redox	Pt4865-50

- ¹⁾ If the electrode holder of the InFit 763 e (steel or PVDL version) is removed, an electrode/sensor with Pg 13.5 thread can be inserted.
(see respective section in table InFit 762 e.

Product key

Electrode / sensor type									
2	pH/Redox electrodes, O ₂ , CO ₂ , turbidity and conductivity sensors (Ø 12 mm and Pg 13.5 thread)								
3	pH/Redox electrodes with liquid electrolyte								
Protective cage									
W Sensor holder with protective cage									
N Sensor holder without protective cage									
Sensor holder									
G 12 mm electrodes with Pg 13.5 thread									
U Electrodes with liquid electrolyte α = 150 mm									
F Turbidity sensor (FSC)									
H Electrodes with liquid electrolyte α = 120 mm									
Available with immersion length (H) from 400 mm to 4000 mm in steps of 50 mm									
0 4 0 0 400 mm Immersion length									
4 0 0 0 4000 mm Immersion length									
Material (wetted parts)									
4 4 0 4 DIN 1.4404/AISI 316L									
C 2 2 – DIN 2.4602/Alloy C22									
T i – – Titanium									
P V D F PVDF Polyvinylidene fluoride									
P V D L PVDF Polyvinylidene fluoride antistatic									
Process connections									
B 0 1 M80x3 mm for plastic version only									
B 0 2 DN50 G 2" for steel version									
A 0 3 ANSI 2"/150 lbs									
A 0 4 ANSI 3"/150 lbs									
A 0 5 ANSI 4"/150 lbs									
D 0 4 Flange DN50-PN16									
D 0 5 Flange DN65-PN16									
D 0 6 Flange DN80-PN16									
D 0 7 Flange DN100-PN16									
T 0 5 Tri-Clamp flange 3" straight									
J 0 1 Flange JIS 10K 80									
O-ring material									
V i FKM Viton FDA									
E P EPDM FDA									
K α FFKM Kalrez 6230 FDA/USP Cl VI									
Special									
– – Standard									
S – Special									

InFit 76  /  /  /  /  /  /  / 

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

For additional information see dimensional drawings in the technical data.

- Not all configurations are possible.
- Please contact your local METTLER TOLEDO representative for more options.

Ordering information

InFit 76Y e Series

InFit 762 e	Designation	Order no.
	InFit 762/NG/1000/4404/B02/VI--	52 400 065
	InFit 762/NG/1500/4404/B02/VI--	52 400 066

InFit 763 e	Designation	Order no.
	InFit 763/NU/1000/4404/B02/VI--	52 400 060
	InFit 763/NU/1200/4404/B02/VI--	52 400 352
	InFit 763/NU/1500/4404/B02/VI--	52 400 061
	InFit 763/NU/1800/4404/B02/VI--	52 400 721
	InFit 763/WH/1000/PVDF/B01/VI--	59 901 022
	InFit 763/WH/1500/PVDF/B01/VI--	59 900 963

All other configurations can be ordered according to the product key found on page 13.

Spare parts InFit 76Y e	Designation	Order no.
	O-ring set Vi 76Y e (flange adaption)	52 400 115
	O-ring set Vi 76Y e (socket adaption)	52 400 114
	O-ring set Ka 76Y e (flange adaption)	52 400 370
	O-ring set Ka 76Y e (socket adaption)	52 400 369
	O-ring set Ep 76Y e (flange adaption)	52 403 475
	O-ring set Ep 76Y e (socket adaption)	52 403 476
	O-ring set Ka InFit 763 e (plastic version)	52 400 371
	O-ring set Vi InFit 763 e (plastic version)	59 900 916
	Manometer 0...6 bar complete	59 901 296
	Pressure connection set	59 905 552
	Valve insert	59 905 517
	Top piece complete 763 e	59 900 908

Accessories	Designation	Order no.
	Weld-in socket	
	Weld-in socket L=60/DN50/1.4435	59 900 860
	Blind plug	
	Blind plug DN50 1.4435 Silikon-FDA	59 900 903
	Protective cage	
	Protective cage, pluggable 1.4435	59 901 132
	Protective cage, pluggable DIN 2.4602	52 402 858

Ordering information

InFit 76Y e Series

Accessories (cont.)	Designation	Order no.
	Connection cable AS9/HT-Coax 5 (temperature -30...90 °C)	
	3 m	59 902 276
	5 m	59 902 295
	10 m	59 902 323
	Connection cable AS9/ST-Coax 5 (temperature -30...80 °C)	
	3 m	59 902 268
	5 m	59 902 292
	10 m	59 902 318
	Connection cable AK9/ST-Coax 5 (temperature -30...80 °C)	
	1 m	59 902 167
	3 m	59 902 193
	10 m	59 902 230
	Connection cable VP6/HT (temperature -30...130 °C)	
	1 m	52 300 111
	3 m	52 300 112
	5 m	52 300 113
	10 m	52 300 114
	Connection cable VP6/ST (temperature -30...80 °C)	
	1 m	52 300 107
	3 m	52 300 108
	5 m	52 300 109
	10 m	52 300 110
	Insert DXK/DPA for InFit 763 e (PVDF version)*	59 900 886

For further accessories please contact your local METTLER TOLEDO representative.

* The insert allows using electrodes with 12 mm diameter.

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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 Argenta Rd #6
CA-ON L5N 8G6 Mississauga
Phone +1 800 638 8537
e-mail ProInsideSalesCA@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.mt.uk@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
Kalimang, 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 & 4F, 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., Bangkok
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.mttr@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 mtprou@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



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Im Hackacker 15, CH-8902 Urdorf, Switzerland
Phone +41 44 729 62 11, Fax +41 44 729 66 36

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