

## Electromagnetic Flowmeters



- **Installation notes**
- **Sizing guide**
- **Ordering guide**

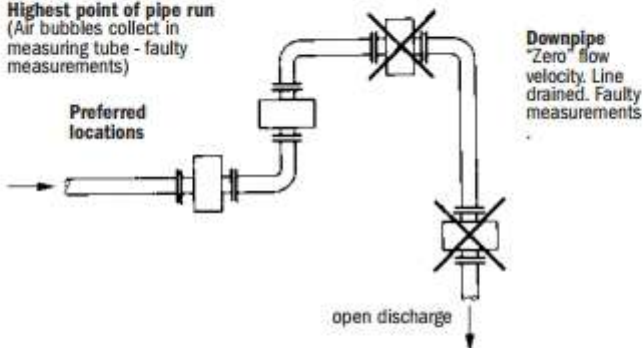
Variable area flowmeters
Vortex flowmeters
Flow controllers
<b>Electromagnetic flowmeters</b>
Ultrasonic flowmeters
Mass flowmeters
Level measuring instruments
Communications engineering
Engineering systems & solutions

## Installation notes 3.1

### Installation in the pipeline

- **Location and position as required**, but electrode axis must be approximately horizontal
- **Stud bolts and nuts**, to install, make sure there is sufficient room next to the pipe flanges
- **Vibration**, support the pipeline on both sides of the flowmeter
- **Large meter sizes (> DN 200 or > 8")**, use adapter pipes to permit axial shifting of counterflanges to facilitate installation.
- **Straight inlet run minimum of 5 x DN and outlet run minimum of 2 x DN (DN = meter size)**, measured from electrode axis (undisturbed flow)
- **Vortex or corkscrew flow**, increase inlet and outlet sections or install flow straighteners
- **Strong electromagnetic fields**, avoid in vicinity of flowmeter
- **Thermally insulated pipeline**, do not insulate flowmeter
- **Suggestions for installation**  
To avoid measuring errors due to air inclusion, please observe the following:

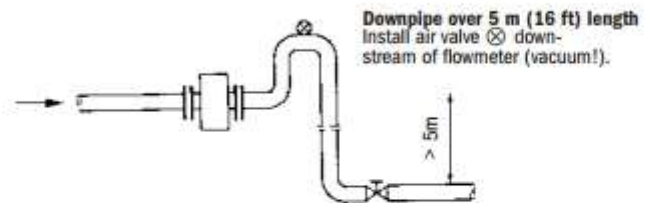
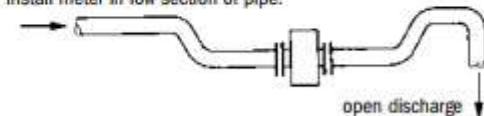
**Highest point of pipe run**  
(Air bubbles collect in measuring tube - faulty measurements)



**Horizontal pipe run**  
Install in slightly ascending pipe section



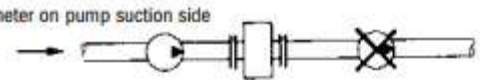
**Open feed or discharge**  
Install meter in low section of pipe.



**Long pipeline**  
Always install control and shutoff valves downstream of flowmeter (vacuum!).



**Pumps**  
Never install flowmeter on pump suction side (vacuum!).



### Electrical conductivity of the fluid

Measurement is independent of the conductivity of the fluid, provided it is above the limit specified for the various systems.

For most primary heads, the lower limit is 5  $\mu\text{S}/\text{cm}$ .

### Distance between primary head and signal converter

The maximum distance is limited by

- conductivity of the fluid
- for systems with pulsed d.c. field excitation, by the cross-sectional area of the field power cable
- for systems with hazardous location approval (European Standard or Factory Mutual), by the capacitance of the signal transmission cable

If more than one of these points apply, the shortest distance is binding.

Precise information on the distance between primary head and signal converter, connection diagrams and length of the signal transmission cable is given in the individual signal converter specifications.

**Magnetic inductive flowmeters should be installed and wired in accordance with the information and directions given in the installation and operating instructions.**

## Sizing guide 3.1

### Recommendations for installation

#### Selection of meter size

The size of primary head should if possible be selected to provide a velocity of 2 to 3 m/s or 6 to 9 ft/sec. for the full-scale range. Minimum full-scale range is 0.5 m/s or 1.5 ft/sec., maximum is 10 or 11 m/s or 30 or 33 ft/sec., depending on flowmeter type.

For fluids with a solids content, the velocity should be between 3 and 5 m/s or 9 and 15 ft/s to prevent deposits and minimize abrasion.

#### Exact determination of flow velocity

For range setting purposes, the exact flow velocity can be determined using the flow table for each nominal pipe width.

#### Example: v in m/s

Nominal pipe diameter	DN 150
Desired measuring range	200 m <sup>3</sup> /h

From the table we obtain for the flow velocity of 1 m/s a flow rate of 63.617 m<sup>3</sup>/h at DN 150; for 200 m<sup>3</sup>/h the flow velocity v is:

$$v = \frac{200 \text{ m}^3/\text{h}}{63.617 \text{ m}^3/\text{h}} \times 1 \text{ m/s}$$

$$v = 3.144 \text{ m/s}$$

#### Example: v in ft/s

Nominal pipe diameter	6"
Desired measuring range	1000 US GPM

From the table we obtain for the flow velocity of 1 ft/s a flow rate of 88.128 US GPM at 6" meter size; for 1000 US GPM the flow velocity v is:

$$v = \frac{1000 \text{ US GPM}}{88.128 \text{ US GPM}} \times 1 \text{ ft/s}$$

$$v = 11.35 \text{ ft/s}$$

### Flow tables

#### v = 1 m/s

Meter size DN mm	Flow rate m <sup>3</sup> /h	Meter size DN mm	Flow rate m <sup>3</sup> /h
2.5	0.017671	250	176.71
4	0.045239	300	254.47
6	0.10179	350	346.36
10	0.28274	400	452.39
15	0.63617	500	706.86
20	1.1310	600	1017.9
25	1.7671	700	1385.4
32	2.8953	800	1809.6
40	4.5239	900	2209.2
50	7.0686	1000	2827.4
65	11.946	1200	4071.5
80	18.096	1400	5541.8
100	28.274	1600	7238.2
125	44.179	1800	9160.9
150	63.617	2000	11310
200	113.10		

#### v = 1 ft/s

Meter size Inch	Flow rate US GPM	Meter size Inch	Flow rate US GPM
1/10	0.024480	10	244.80
1/8	0.038250	12	352.51
1/4	0.15300	14	479.81
3/8	0.34425	16	626.69
1/2	0.61200	20	979.21
3/4	1.3770	24	1410.1
1	2.4480	28	1919.2
1 1/4	3.8250	32	2506.8
1 1/2	5.5080	36	3172.6
2	9.7921	40	3916.8
2 1/2	15.300	48	5640.2
3	22.032	56	7677.0
4	39.168	64	10027
5	61.200	72	12691
6	88.128	80	15667
8	156.67		

Background

Water  
Wastewater

Abrasive,  
corrosive and  
hot products

Non-contact  
measurement  
K=0.05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

Signal converter  
Compact  
and Remote

Remote

Calibration /  
Measuring  
Principle

Sizing /  
Installation  
guides

Ordering  
guide

## Sizing Guide 3.1

### Protection classes

to IEC 529/EN 60529

<b>IP 20,</b> equivalent to <b>NEMA 1</b>	Protection against accidental large-area hand contact	Protection against foreign bodies of > 12 mm or 1/2" diameter	No protection against water
<b>IP 65,</b> equivalent to <b>NEMA 4 and 4X</b>	Protection against contact with means of any kind	Total protection against ingress of dust (dust-proof enclosure)	Protection against jets of water from any direction (hose-proof)
<b>IP 66,</b> equivalent to <b>NEMA 4 and 4X</b>	Protection against contact with means of any kind	Total protection against ingress of dust (dust-proof enclosure)	Protection against jets of water and heavy seas
<b>IP 67</b>	Protection against contact with means of any kind	Total protection against ingress of dust (dust-proof enclosure)	Protection against immersion in water
<b>IP 68</b> equivalent to <b>NEMA 6</b>	Protection against contact with means of any kind	Total protection against ingress of dust (dust-proof enclosure)	Protection against ingress of water under pressure (water-tight)



### Sizing Guide 3.1

#### Pressure Loss Calculation

A primary head with a smaller meter size may prove to be more economical for pipe runs with a low flow velocity. The pressure loss resulting from pipe reduction/expansion and from the greater velocity in the primary head can be calculated as follows:

$\zeta_1, \zeta_3$  nondimensional quantities as a function of the Reynolds number (see diagrams)

$\zeta_2$  nondimensional quantity: 0.02 for KROHNE flowmeters

$\rho$  density in  $\text{kg/m}^3$

$d_1, d_2$  pipe I.D. in metres and inches

$v_1, v_2$  flow velocity in m/s and ft/s

Pressure loss in mbar

(1) Pressure loss, reducing section

$$\Delta p_1 = \frac{\rho}{2} \times \zeta_1 \times v_2^2$$

(2) Pressure loss, primary head

$$\Delta p_2 = \frac{\rho}{2} \times \zeta_2 \times v_2^2$$

(3) Pressure loss, expanding section

$$\Delta p_3 = \frac{\rho}{2} \times \zeta_3 \times v_1^2$$

Total pressure loss is:

$$\Delta p_{\text{tot.}} = (\Delta p_1 + \Delta p_2 + \Delta p_3) \times 0.01 \text{ [mbar]}$$

Pressure loss in inches w.c. (water column)

(1) Pressure loss, reducing section

$$\Delta p_1 = \frac{\rho}{2} \times \zeta_1 \times v_2^2 \times 3.654 \times 10^{-4}$$

(2) Pressure loss, primary head

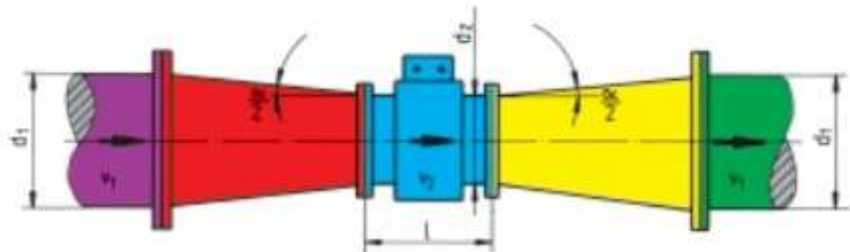
$$\Delta p_2 = \frac{\rho}{2} \times \zeta_2 \times v_2^2 \times 3.654 \times 10^{-4}$$

(3) Pressure loss, expanding section

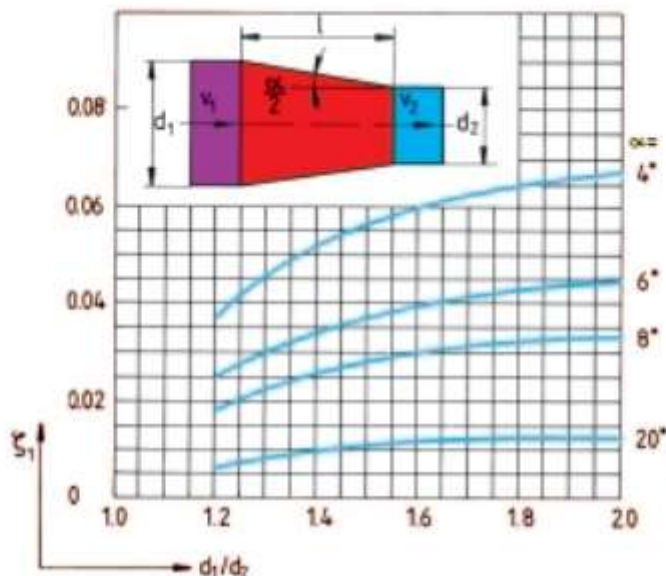
$$\Delta p_3 = \frac{\rho}{2} \times \zeta_3 \times v_1^2 \times 3.654 \times 10^{-4}$$

Total pressure loss is:

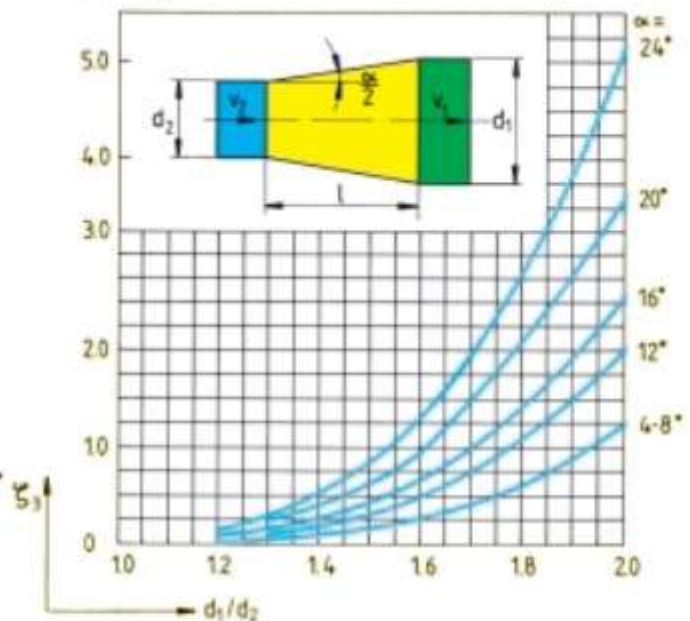
$$\Delta p_{\text{tot.}} = (\Delta p_1 + \Delta p_2 + \Delta p_3) \text{ [inches w.c.]}$$



Reducing section



Expanding section



The reducing angle ( $\alpha$ ) should not exceed  $8^\circ$  (equivalent to  $\alpha/2 = 4^\circ$ ), otherwise measuring accuracy may be affected. If the reducing angle is greater, a straight inlet section must be fitted between reducing socket and primary head.

For the expanding section, the optimum angle of expansion is  $\alpha = 8^\circ$ .

$\zeta$  at  $\alpha = 8^\circ$

$d_1/d_2$	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
$\zeta_1$	0.018	0.023	0.0255	0.028	0.03	0.0308	0.0315	0.0323	0.0332
$\zeta_3$	0.01	0.02	0.07	0.15	0.26	0.43	0.64	0.9	1.25

## Ordering Guide

**Magnetic-inductive primary head IFS 1000 F for connection to signal converter**  
 IFC 010 K/F, IFC 20 K/F/E, IFC 090 K/F, IFC 110 F or IFC 210 E  
 DC-field operation for liquids > 5 (water > 20) µS / cm

Page 01  
 ECOFLUX IFS 1000

Code Primary head										
V313	0	1	IFS 1000	F	DN 10	/	3/8"	(for flanges DN 15 / 1/2")	*	
		2	IFS 1000	F	DN 15	/	1/2"		*	
		4	IFS 1000	F	DN 25	/	1"			
		6	IFS 1000	F	DN 40	/	1 1/2"			
		7	IFS 1000	F	DN 50	/	2"			
		A	IFS 1000	F	DN 80	/	3"			
		B	IFS 1000	F	DN 100	/	4"			
		D	IFS 1000	F	DN 150	/	6"			
<b>Pressure rating</b>										
		3	PN 16	DIN 2501	(DN 100 - DN 150)			[max. working pressure 16 bar]		
		5	PN 40	DIN 2501	(DN 10 - DN 80)			[max. working pressure 16 bar]		
		A	150 lb	ANSI RF	(3/8" - 6")			[max. working pressure 232 psi]		
		B	300 lb	ANSI RF	(3/8" - 4")			[max. working pressure 232 psi]		
		M	JIS 20 K		(DN 10 - DN 100)			[max. working pressure 16 bar]		
		N	JIS 10 K		(DN 150)			[max. working pressure 10 bar]		
<b>Mounting material</b>										
		1	Steel, galv.	/	Rubber sleeves					
		2	st. Steel A2	/	Rubber sleeves					
		3	Rubber sleeves							
<b>Version / Signal converter</b>										
		1	IFS 1000 F		(without converter)					
		2	IFS 1000		(modular)			separate version without connection box		
		4	IFC 1010 K		(for IFC 010 K)					
		5	IFC 1010 F		(for IFC 010 F)		G	IFM 1020 E	(for IFC 020 E)	
		7	IFM 1080 K		(for IFC 090 K)		R	IFM 1210 E	(for IFC 210 E)	
		8	IFM 1080 F		(for IFC 090 F)		U	IFM 1080 K	(for IFC 090 K) Ex nA	
		A	IFM 1110 F		(for IFC 110 F)		V	IFM 1080 F	(for IFC 090 F) Ex nA	
		E	IFM 1020 K		(for IFC 020 K)		W	IFM 1080 K	(for IFC 090 K) Div 2	
		F	IFM 1020 F		(for IFC 020 F)		X	IFM 1080 F	(for IFC 090 F) Div 2	
<b>Language Operating manual</b>										
		1	D		2	GB	3	US	4	F
		5	D		6	GB	7	US	8	F
		A	D		B	GB	C	US	D	F
		E	D		F	GB	G	US	H	F
<b>Cable connection</b>										
										PG 13,5
										1/2" NPT
										PF 1/2
										modular/compact
<b>Calibration</b>										
		0	standard		(incl. converter)					
		5	GK + GKL		(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
* incl. earthing rings made out of st. Steel 316 Ti and Viton gaskets										
V313	0	1	IFS 1000	F	DN 10	/	3/8"	(for flanges DN 15 / 1/2")	*	
		2	IFS 1000	F	DN 15	/	1/2"		*	
		4	IFS 1000	F	DN 25	/	1"			
		6	IFS 1000	F	DN 40	/	1 1/2"			
		7	IFS 1000	F	DN 50	/	2"			
		A	IFS 1000	F	DN 80	/	3"			
		B	IFS 1000	F	DN 100	/	4"			
		D	IFS 1000	F	DN 150	/	6"			
		3	PN 16	DIN 2501	(DN 100 - DN 150)			[max. working pressure 16 bar]		
		5	PN 40	DIN 2501	(DN 10 - DN 80)			[max. working pressure 16 bar]		
		A	150 lb	ANSI RF	(3/8" - 6")			[max. working pressure 232 psi]		
		B	300 lb	ANSI RF	(3/8" - 4")			[max. working pressure 232 psi]		
		M	JIS 20 K		(DN 10 - DN 100)			[max. working pressure 16 bar]		
		N	JIS 10 K		(DN 150)			[max. working pressure 10 bar]		
		1	Steel, galv.	/	Rubber sleeves					
		2	st. Steel A2	/	Rubber sleeves					
		3	Rubber sleeves							
		1	IFS 1000 F		(without converter)					
		2	IFS 1000		(modular)			separate version without connection box		
		4	IFC 1010 K		(for IFC 010 K)					
		5	IFC 1010 F		(for IFC 010 F)		G	IFM 1020 E	(for IFC 020 E)	
		7	IFM 1080 K		(for IFC 090 K)		R	IFM 1210 E	(for IFC 210 E)	
		8	IFM 1080 F		(for IFC 090 F)		U	IFM 1080 K	(for IFC 090 K) Ex nA	
		A	IFM 1110 F		(for IFC 110 F)		V	IFM 1080 F	(for IFC 090 F) Ex nA	
		E	IFM 1020 K		(for IFC 020 K)		W	IFM 1080 K	(for IFC 090 K) Div 2	
		F	IFM 1020 F		(for IFC 020 F)		X	IFM 1080 F	(for IFC 090 F) Div 2	
		1	D		2	GB	3	US	4	F
		5	D		6	GB	7	US	8	F
		A	D		B	GB	C	US	D	F
		E	D		F	GB	G	US	H	F
										PG 13,5
										1/2" NPT
										PF 1/2
										modular/compact
		0	standard		(incl. converter)					
		5	GK + GKL		(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
* incl. earthing rings made out of st. Steel 316 Ti and Viton gaskets										
V313	0	1	IFS 1000	F	DN 10	/	3/8"	(for flanges DN 15 / 1/2")	*	
		2	IFS 1000	F	DN 15	/	1/2"		*	
		4	IFS 1000	F	DN 25	/	1"			
		6	IFS 1000	F	DN 40	/	1 1/2"			
		7	IFS 1000	F	DN 50	/	2"			
		A	IFS 1000	F	DN 80	/	3"			
		B	IFS 1000	F	DN 100	/	4"			
		D	IFS 1000	F	DN 150	/	6"			
		3	PN 16	DIN 2501	(DN 100 - DN 150)			[max. working pressure 16 bar]		
		5	PN 40	DIN 2501	(DN 10 - DN 80)			[max. working pressure 16 bar]		
		A	150 lb	ANSI RF	(3/8" - 6")			[max. working pressure 232 psi]		
		B	300 lb	ANSI RF	(3/8" - 4")			[max. working pressure 232 psi]		
		M	JIS 20 K		(DN 10 - DN 100)			[max. working pressure 16 bar]		
		N	JIS 10 K		(DN 150)			[max. working pressure 10 bar]		
		1	Steel, galv.	/	Rubber sleeves					
		2	st. Steel A2	/	Rubber sleeves					
		3	Rubber sleeves							
		1	IFS 1000 F		(without converter)					
		2	IFS 1000		(modular)			separate version without connection box		
		4	IFC 1010 K		(for IFC 010 K)					
		5	IFC 1010 F		(for IFC 010 F)		G	IFM 1020 E	(for IFC 020 E)	
		7	IFM 1080 K		(for IFC 090 K)		R	IFM 1210 E	(for IFC 210 E)	
		8	IFM 1080 F		(for IFC 090 F)		U	IFM 1080 K	(for IFC 090 K) Ex nA	
		A	IFM 1110 F		(for IFC 110 F)		V	IFM 1080 F	(for IFC 090 F) Ex nA	
		E	IFM 1020 K		(for IFC 020 K)		W	IFM 1080 K	(for IFC 090 K) Div 2	
		F	IFM 1020 F		(for IFC 020 F)		X	IFM 1080 F	(for IFC 090 F) Div 2	
		1	D		2	GB	3	US	4	F
		5	D		6	GB	7	US	8	F
		A	D		B	GB	C	US	D	F
		E	D		F	GB	G	US	H	F
										PG 13,5
										1/2" NPT
										PF 1/2
										modular/compact
		0	standard		(incl. converter)					
		5	GK + GKL		(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
* incl. earthing rings made out of st. Steel 316 Ti and Viton gaskets										

Complete ordering code

Background

Water  
Wastewater

Abusive,  
corrosive and  
hot products

Non-contact  
measurement  
K: > 0,05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

Signal converter  
Compact  
and Remote

Remote

Calibration /  
Measuring  
Principle

Sizing /  
Installation  
Guides

Ordering  
guide











# Ordering Guide

## Magnetic-inductive primary head IFS 4000 / IFS 4005 F for connection to signal converter

Page 06

IFC 010 K/F, IFC 020 K/F/E, IFC 090 K/F, IFC 110 F, IFC 210 E or SC 150

ALTOFLUX IFS 4000 / 4005

DC-field operation for liquids > 5 (water > 20) µS/cm

DN 500 - DN 1000 / 20" - 40"

Code Primary head

V303	0	M	IFS 4000	F	DN 500	/	20"	PTFE	
		M	IFS 4000	F	DN 500	/	20"	Tefzel (gasket of electrodes: Kalrez)	
		M	IFS 4000	F	DN 500	/	20"	Hardrubber	only for Ex I
		N	IFS 4000	F	DN 600	/	24"	PTFE	
		N	IFS 4000	F	DN 600	/	24"	Tefzel (gasket of electrodes: Kalrez)	
		N	IFS 4000	F	DN 600	/	24"	Hardrubber	only for Ex I
		P	IFS 4000	F	DN 700	/	28"	FEP, glued	
		P	IFS 4000	F	DN 700	/	28"	Hardrubber	only for Ex I
		R	IFS 4000	F	DN 800	/	32"	FEP, glued	
		R	IFS 4000	F	DN 800	/	32"	Hardrubber	only for Ex I
		S	IFS 4000	F	DN 900	/	36"	FEP, glued	
		S	IFS 4000	F	DN 900	/	36"	Hardrubber	only for Ex I
		T	IFS 4000	F	DN 1000	/	40"	FEP, glued	
		T	IFS 4000	F	DN 1000	/	40"	Hardrubber	only for Ex I
<b>Pressure rating (others on request)</b>									
		2	PN 10	DIN 2501	smooth packing strip		(DN 500 - DN 1000)		
		A	ANSI 150 lb RF	(20" - 40")			> 12" : up to max. 10 bar (higher on request)		
		M	JIS 20 K				up to max. 10 bar (higher on request)		
		N	JIS 10 K				up to max. 10 bar (higher on request)		
<b>Protection category ***</b>									
		***	***				DEM	EUR	
							0	0,00	*** ***** SEV EEx (Swiss)
			DS, 10 m				719	367,62	*** ***** DS/LJCY, 10 m
			BTS, 10 m				785	401,36	*** ***** A Ex / Div 1 (USA)
			EEx zone 1				1.487	760,29	*** ***** A Ex / Div 2 (USA)
			Ex nA zone 2				80	40,90	*** ***** J Ex (Japan)
			Ex nA zone 2				799	408,52	*** ***** C/CP (CSA / Canada)
<b>Version / Signal converter</b>									
		1	IFS 4000 F				(without converter)		
		2	IFS 4005 F				(without converter)		
		4	IFS 4000				(modular)		
		5	IFM 4020 K				(for IFC 020 K)		
		6	IFM 4020 F				(for IFC 020 F)		
		7	IFM 4010 K				(for IFC 010 K)		
		8	IFM 4010 F				(for IFC 010 F)		
		A	IFM 4080 K				(for IFC 090 K)		
		B	IFM 4080 F				(for IFC 090 F)		
		H	IFM 4115 F				(for SC 150 F)		
		D	IFM 4110 F				(for IFC 110 F)		
		L	IFM 4020 E				(for IFC 020 E)		
		M	IFM 4080 K/Ex-i				(for IFC 090 K/Ex-i)		
		N	IFM 4080 F/Ex-i				(for IFC 090 F/Ex-i)		
		R	IFM 4210 E				(for IFC 210 E)		
<b>Language Operating manual</b>									
		1	D				2	GB	
		5	D				6	GB	
		A	D				B	GB	
		E	D				F	GB	
							3	US	
							7	US	
							C	US	
							G	US	
							4	F	
							8	F	
							D	F	
							H	F	
									PG 13,5
									1/2" NPT
									PF 1/2
									modular/compact
<b>Liner (Option)</b>									
		1	PTFE				(≤ DN 600)		
		2					provided for protection rings (PTFE)		
		5	Hardrubber						
		A	Soltrubber						
		D	Iratthane (PU)						
		G	FEP				(≥ DN 700 / > 28")		
		K	Tefzel				gasket of electrodes: Viton (DN 500 - DN 600 / 20" - 24")		
<b>Electrodes</b>									
		3	Hastelloy C (standard)						
		4	Hastelloy B						
		5	Tantalum						
		6	Titanium						
		7	Platinum (wetted parts)						
			others						see price list 12
<b>Mounting of electrodes</b>									
		1	fixed						
		6	WE				Stainless Steel 316 Ti		
<b>Material of flange</b>									
		1	Steel St 37-C22 / A 105						
		2	st. Steel 1.4306 (304 L)						
		3	st. Steel 1.4404 (316 L)						
		4	st. Steel 1.4571 (316 Ti) DIN only						
<b>Primary constant</b>									
		0	standard				(incl. converter)		
		5	GK + GKL				(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)		
		6	GK + GKH				(for IFC 020, IFC 090, IFC 110, IFC 210, SC 150)		
*** Ex protection only in connection to IFC 090 Ex, IFC 110 Ex or IFC 210 Ex									
V303									Complete ordering code

# Ordering Guide

Magnetic-inductive primary head IFS 4000 / IFS 4005 F for connection to  
 signal converter IFC 110 F or SC 150  
 DC-field operation for liquids with conductivity > 5 (water > 20) µS/cm

Page 07  
 ALTOFLUX IFS 4000  
 DN 1200 - DN 2000 / 48" - 80"

Code Primary head																			
V303	0	U	IFS 4000	F	DN	1200	/	48"	FEP, glued										
		V	IFS 4000	F	DN	1400	/	56"	FEP, glued										
		W	IFS 4000	F	DN	1600	/	64"	FEP, glued										
		X	IFS 4000	F	DN	1800	/	72"	FEP, glued										
		Y	IFS 4000	F	DN	2000	/	80"	FEP, glued										
<b>Pressure rating</b>																			
		1	PN 6	DIN 2501	smooth packing strip			(DN 1200 - DN 2000)											
		A	ANSI	150 lb RF				(48" - 120")											
<b>Protection category (Ex-protection only in connection to IFC 090 F/Ex or IFC 110 F/Ex)</b>																			
		1	IP 67																
		2	IP 68	DS, 10 m															
		3	IP 68	BTS, 10 m															
		4	IP 67	EEx zone 1															
		5	IP 67	Ex nA zone 2															
		6	IP 68	Ex nA zone 2															
		7	IP 67	SEV EEx (Swiss)															
		8	IP 68	DSL/ICY, 10 m															
		A	IP 67	A Ex / Div 1 (USA)															
		B	IP 67	A Ex / Div 2 (USA)															
		C	IP 67	J Ex (Japan)															
		D	IP 67	C/CP (CSA / Canada)															
<b>Version / Signal converter</b>																			
		1	IFS 4000 F	(without converter)															
		5	IFM 4020 K	(for IFC 020 F ≤ DN 1600)															
		6	IFM 4020 F	(for IFC 020 F ≤ DN 1600)															
		A	IFM 4080 K	(for IFC 090 F ≤ DN 1600)															
		B	IFM 4080 F	(for IFC 090 F ≤ DN 1600)															
		D	IFM 4110 F	(for IFC 110 F ≤ DN 1600)															
		F	IFM 4150 F	(for SC 150 > DN 1600)															
		L	IFM 4020 E	(for IFC 020 E ≤ DN 1600)															
		N	IFM 4080 F/Ex-I	(for IFC 090 F ≤ DN 1600)															
<b>Language Operating manual</b>										<b>Cable connection</b>									
		1	D	2	GB	3	US	4	F										
		5	D	6	GB	7	US	8	F	PG 13,5									
		A	D	B	GB	C	US	D	F	1/2" NPT									
										PF 1/2									
<b>Liner (Option)</b>																			
		2	provided for protection rings																
		A	Solrubber																
		D	Itrihane (PU)																
		G	FEP																
<b>Electrodes</b>																			
		3	Hastelloy C (standard)																
		4	Hastelloy B																
		5	Tantalum																
		6	Titanium																
		7	Platinum (wetted parts)																
		others see price list page 12																	
<b>Mounting of electrodes</b>																			
		1	fixed																
		6	WE	Stainless Steel 316 Ti (standard)															
<b>Material of flange</b>																			
		1	Steel 37-C22 / A 105																
		2	Stainless Steel 1.4306 (304 L)																
		3	Stainless Steel 1.4404 (316 L)																
		4	Stainless Steel 1.4571 (316 ti) DIN only																
<b>Primary constant</b>																			
		0	standard (incl. converter)																
		6	GK + GK4 (for IFC 020, 080, 110, 210, SC 150)																

V303 | | | | | | | | | | | | | | | | | | | | Complete ordering code

Background  
 Wastewater  
 Water  
 Abrasive, corrosive and hot products  
 Non-contact measurement  
 K < 0,05 µS/cm  
 Food, Beverage, Pharmaceutical  
 High Pressure and special connections  
 Compact and Remote  
 Signal converter  
 Remote  
 Calibration / Measuring Principle  
 Sizing / Installation guides  
 Ordering guide

# Ordering Guide

Magnetic-inductive primary head AQUAFLUX for connection to signal converter  
 IFC 010 K/F, IFC 020 K/F/E, IFC 090 K/F, IFC 110 F or IFC 210 E  
 DC-field operation for liquids with conductivity > 5 (water > 20) µS/cm

Page 08  
 AQUAFLUX  
 DN 10 - DN 150 / 3/8" - 6"

Code Primary head									
V323	0	1	Aquaflux	F	DN 10	/	3/8"	flanges 1/2"	PTFE
			2	Aquaflux	F	DN 15	/	1/2"	PTFE
			3	Aquaflux	F	DN 20	/	3/4"	PTFE
			4	Aquaflux	F	DN 25	/	1"	Hardrubber
			5	Aquaflux	F	DN 32	/		Hardrubber
			6	Aquaflux	F	DN 40	/	1 1/2"	Hardrubber
			7	Aquaflux	F	DN 50	/	2"	Hardrubber
			8	Aquaflux	F	DN 65	/	2 1/2"	Hardrubber
			A	Aquaflux	F	DN 80	/	3"	Hardrubber
			B	Aquaflux	F	DN 100	/	4"	Hardrubber
			C	Aquaflux	F	DN 125	/	5"	Hardrubber
		D	Aquaflux	F	DN 150	/	6"	Hardrubber	
<b>Pressure rating</b>									
		3	PN 16	DIN 2501	(DN 65, DN 100 - DN 150)				
		5	PN 40	DIN 2501	(DN 10 - DN 80 without DN 65)				
		A	ANSI 150	lb RF					
		M	JIS 20 K		(DN 10 - DN 50)				
		N	JIS 10 K		(DN 65 - DN 150)				
<i>others on request</i>									
<b>Protection category</b>									
		1	IP 67						
		2	IP 68	DS, 10 m					
		3	IP 68	BTS, 10 m					
		5	IP 67	Ex nA zone 2					
		6	IP 68	Ex nA zone 2					
		8	IP 68	DS/LIYCY, 10 m					
		G	IP 67						ISO-length
		H	IP 68	DS, 10 m					ISO-length
		K	IP 68	BTS, 10 m					ISO-length
		M	IP 67	Ex nA zone 2					ISO-length
		N	IP 68	Ex nA zone 2					ISO-length
		P	IP 68	DS/LIYCY, 10 m					ISO-length
<b>Version / Signal converter</b>									
		1	Aquaflux	F	(without converter)				
		4	Aquaflux		(modular) separate version without connection box				
		5	Aquaflux	020 K	(for IFC 020 K)				
		6	Aquaflux	020 F	(for IFC 020 F)				
		7	Aquaflux	010 K	(for IFC 010 K)				
		8	Aquaflux	010 F	(for IFC 010 F)				
		A	Aquaflux	080 K	(for IFC 090 K)				
		B	Aquaflux	080 F	(for IFC 090 F)				
		D	Aquaflux	110 F	(for IFC 110 F)				
		L	Aquaflux	020 E	(for IFC 020 E)				
		R	Aquaflux	210 E	(for IFC 210 E)				
<b>Language Operating manual</b>									
		1	D	2	GB	3	US	4	F
		5	D	6	GB	7	US	8	F
		A	D	B	GB	C	US	D	F
		E	D	F	GB	G	US	H	F
<b>Cable connection</b>									
									PG 13,5
									1/2" NPT
									PF 1/2
									modular/compact
<b>Liner (Option)</b>									
		0	standard	(DN 10 - DN 20 / 3/8" - 3/4": PTFE / DN 25 - DN 150 / 1" - 6": Hardrubber)					
		2	provided for protection rings	(DN 10 - DN 20 / 3/8" - 3/4": PTFE)					
<b>Electrodes</b>									
		1	Stainless Steel 316 Ti						
		3	Hastelloy C (standard)						
		6	Titanium						
<b>Mounting of electrodes</b>									
		1	fixed						
<b>Material of flange</b>									
		1	Steel St 37-C22 / A 105						
		2	Stainless Steel 1.4306 (304 L)						
		3	Stainless Steel 1.4404 (316 L)						
		4	Stainless Steel 1.4571 (316 Ti) DIN only						
<b>Primary constant</b>									
		0	standard	(incl. converter)					
		5	GK + GKL	(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
V323	0	1							1
Complete ordering code									









# Ordering Guide

## Magnetic-inductive primary head AQUAFLUX for connection to signal converter

IFC 110 F, IFC 020 K/F/E, IFC 090 K/F or SC 150 (IFC 020, IFC 090 and IFC 110 ≤ DN 1600)

Page 11

AQUAFLUX

DC-field operation for liquids with conductivity > 5 (water > 20) μS/cm

DN 1200 - DN 3000 / 48" - 120"

Code Primary head											
V323	0	U	Aquaflux	F	DN 1200	/	48"				Hardrubber
		V	Aquaflux	F	DN 1400	/	56"				Hardrubber
		W	Aquaflux	F	DN 1600	/	64"				Hardrubber
		X	Aquaflux	F	DN 1800	/	72"				Hardrubber
		Y	Aquaflux	F	DN 2000	/	80"				Hardrubber
		Z	Aquaflux	F	DN 2200	/	88"				Hardrubber
		Z	Aquaflux	F	DN 2400	/	96"				Hardrubber
	9	Z	Aquaflux	F	DN 2600	/	104"				Hardrubber
	9	Z	Aquaflux	F	DN 2800	/	112"				Hardrubber
	9	Z	Aquaflux	F	DN 3000	/	120"				Hardrubber
<b>Pressure rating</b>											
		1	PN 6	DIN 2501	smooth packing strip						(DN 1200 - DN 2000)
		A	ANSI	150 lb RF							(48" ... 120")
		G	PN 2.5	DIN 2501	smooth packing strip						(DN 2200 - DN 3000)
<b>Protection category</b>											
		1	IP 67								
		2	IP 68	DS, 10 m							
		3	IP 68	BTS, 10 m							
		5	IP 67	Ex nA zone 2							
		6	IP 68	Ex nA zone 2							
		8	IP 68	DS/LVGY, 10 m							
<b>Version / Signal converter</b>											
		1	Aquaflux								(without converter)
		4	Aquaflux modular								
		5	Aquaflux 020 K	(for IFC 020 K)							≤ DN 1600
		6	Aquaflux 020 F	(for IFC 020 F)							≤ DN 1600
		A	Aquaflux 090 K	(for IFC 090 K)							≤ DN 1600
		B	Aquaflux 090 F	(for IFC 090 F)							≤ DN 1600
		D	Aquaflux 010 F	(for IFC 110 F)							≤ DN 1600
		F	Aquaflux 150 F	(for IFC 150 F)							> DN 1600
		L	Aquaflux 020 E	(for IFC 020 E)							≤ DN 1600
		R	Aquaflux 210 E	(for IFC 210 E)							≤ DN 1600
<b>Language Operating manual</b>											
		1	D	2	GB	3	US	4	F		Cable connection
		5	D	6	GB	7	US	8	F		PG 13,5
		A	D	B	GB	C	US	D	F		1/2" NPT
											PF 1/2
<b>Liner (Option)</b>											
	0										0 Hardrubber (standard)
<b>Electrodes</b>											
	4										1 st. Steel 316 ti
	0										3 Hastelloy C (standard)
	4										6 Titanium
<b>Mounting of electrodes</b>											
	0										1 fixed
	4										6 WE st. Steel 316 ti
<b>Material of flange</b>											
	0										1 Steel 37-C22 / A 105
	4										2 Stainless Steel 1.4306 (304 L)
	4										3 Stainless Steel 1.4404 (316 L)
	4										4 Stainless Steel 1.4571 (316 ti) DIN only
<b>Primary constant</b>											
	0										0 standard (≤ DN 1600: IFC 110, 210, 090, 020 / > DN 1600: SC 150)
	4										6 GK + GKH (for IFC 110, 210, 020, 090, SC 150)
V323										0	Complete ordering code

## Ordering Guide

Additional price list material and construction of electrodes  
for IFS 4000 / 4005 / 2000 / 2005

Page 12  
ALTOFLUX IFS 2000 / 2005  
ALTOFLUX IFS 4000 / 4005

Material of electrodes		(for standard pressure rating)		
1	Stainless Steel 1.4571 (316 Ti)			
2	Stainless Steel 1.4401 (316)			
A	Nickel			
F	Plastics, conductive	basis	HC	(only with PFA DN 25 - DN 150)
G	Low Noise (Aluminiumoxide)	basis	HC	
H	Rubber, conductive		(Softrubber lining)	
L	Plastics, conductive	basis	Platinum	(only with PFA DN 25 - DN 150)
M	Low Noise (Aluminiumoxide)	basis	Platinum	
P	Plastics, conductive	basis	Tantalum	
R	Low Noise (Aluminiumoxide)	basis	Tantalum	
T	Plastics, conductive	basis	SS 316 Ti	(only with PFA DN 25 - DN150)
U	Low Noise (Aluminiumoxide)	basis	Stainless Steel 316 Ti	
V	Wolframcarbid	basis	Stainless Steel 316 Ti	
<b>Mounting of electrodes</b>				
1	fixed			
2	replaceable (old construction) (IFS 4000 / 4005 PFA (DN 25 - 150 / 1" - 6"))			
	replaceable in workshop (IFS 4000 / 4005)		(≥ DN 200 / 8")	
4	fixed with USC-electrodes	(≥ DN 350)	without US-generator	(not for Ex)
6	WE 1.4571	(≥ DN 350)		
7	WE Hastalloy C4	(≥ DN 350)		
8	WE 1.4571 and USC	(≥ DN 350)	without US-generator	(not for Ex)
A	electrode caps IFS 4000 > DN 300 and M 900 > DN 50			
	US-generator 110 / 230 V AC			
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div>Complete ordering code</div> </div>				

Background

Water  
Wastewater

Abstractive,  
corrosive and  
hot products

Non-contact  
measurement  
K: > 0.05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

Signal converter  
Compact  
and Remote

Remote

Calibration /  
Measuring  
Principle

Sizing /  
Installation  
Guides

Ordering  
Guide

# Ordering Guide

## Magnetic-inductive primary head IFS 5000 for connection to signal converter

Page 13

IFC 010 K/F, IFC 020 K/F/E, IFC 090 K/F, IFC 110 F, IFC 210 E

PROFILUX IFS 5000

DC-field operation for liquids > 5 (water > 20) µS / cm, sandwich design

CAPAFLUX IFM 5080 K / CAP

IFM 5080 K / CAP for liquids > 0.05 (Water > 1) µS/cm, sandwich design

Code Primary head									
V304	0	1	IFS 5000	F	DN 2.5	PN 40	/	1/10"	for flanges DN 15 / 1/2"
		2	IFS 5000	F	DN 4	PN 40	/	1/8"	for flanges DN 15 / 1/2"
		3	IFS 5000	F	DN 6	PN 40	/	1/4"	for flanges DN 15 / 1/2"
		4	IFS 5000	F	DN 10	PN 40	/	3/8"	for flanges DN 15 / 1/2"
		5	IFS 5000	F	DN 15	PN 40	/	1/2"	
		6	IFS 5000	F	DN 25	PN 40	/	1"	
		7	IFS 5000	F	DN 40	PN 40	/	1 1/2"	
		8	IFS 5000	F	DN 50	PN 40	/	2"	
		A	IFS 5000	F	DN 80	PN 40	/	3"	
		B	IFS 5000	F	DN 100	PN 16	/	4"	150 lb / JIS 10 K
	B	IFS 5000	F	DN 100	PN 25	/	4"	300 lb / JIS 20 K	
<b>Pressure rating</b>									
		3	PN 16	DIN 2501	(DN 100)				
		4	PN 25	DIN 2501	(DN 100)				
		5	PN 40	DIN 2501	(DN 2.5 - DN 80)				
		A	150 lb	ANSI RF	(1/10" - 4")				
		B	300 lb	ANSI RF	(1/10" - 4")				
		M	JIS 20 K						
		N	JIS 10 K						
<b>Protection category</b>									
		2	IP 67						
		4	IP 67	EEx zone 1					
		4	IP 67	EEx zone 1 Capaflux					
		5	IP 67	Ex nA zone 2					
		7	IP 67	SEV EEx (Swiss)					
		A	IP 67	A Ex / DIV1 (USA)					
		B	IP 67	A Ex / DIV2 (USA)					
		C	IP 67	J Ex (Japan)					
		D	IP 67	C / GP (CSA / Canada)					
<b>Version / Signal converter</b>									
		1	IFS 5000 F	(without converter)					
		2	IFS 5000	(modular) separate version without connection box					
		4	IFM 5010 K	(for IFC 010 K)					
		5	IFM 5010 F	(for IFC 010 F)					
		6	IFM 5080 K/CAP	(for IFC 090 K/CAP)					
		7	IFM 5080 K	(for IFC 090 K)					
		8	IFM 5080 F	(for IFC 090 F)					
		A	IFM 5110 F	(for IFC 110 F)					
		E	IFM 5020 K	(for IFC 020 K)					
		F	IFM 5020 F	(for IFC 020 F)					
		L	IFM 5020 E	(for IFC 020 E)					
		M	IFM 5080 K/Ex-I	(for IFC 090 K/Ex-I)					
		N	IFM 5080 FE-x-I	(for IFC 090 F/Ex-I)					
		R	IFM 5210 E	(for IFC 210 E)					
		U	IFM 5080 K/CAP/Ex-I	(for IFC 090 K/CAP/Ex-I)					
<b>Language operating manual</b>									
		1	D	2	GB	3	US	4	F
		5	D	6	GB	7	US	8	F
		A	D	B	GB	C	US	D	F
		E	D	F	GB	G	US	H	F
								<b>Cable connection</b>	
								PG 13.5	
								1/2" NPT	
								PF 1/2	
								modular/compact	
<b>Mounting material</b>									
		1	Steel, galvanized						
		2	stainless Steel A2 acc. DIN 267						
		3	Rubber sleeves						
<b>Integrated earthing rings / Gaskets</b>									
		1	St. Steel 316 s	incl. O-ring Viton	(DN 2.5 - DN 15 / 1/10" - 1/2")		/ without (≥ DN 25)		
		2	Hastelloy C	incl. O-ring Viton	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		4	St. Steel 316 s	incl. O-ring EPDEM	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		5	Hastelloy C	incl. O-ring EPDEM	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		6	Titanium	incl. O-ring EPDEM	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		A	Hastelloy C	incl. O-ring Kalrez	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		B	Titanium	incl. O-ring Kalrez	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		C	Tantalum	PTFE / PF 29	(DN 2.5 - DN 15 / 1/10" - 1/2")				
<b>Connection box</b>									
		0	standard						
		1	stainless Steel 1.4301 (304)						
<b>Calibration</b>									
		0	standard	(incl. converter)					
		5	GK + GKL	(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
V304									Complete ordering code

## Ordering Guide

### Magnetic-inductive primary head IFS 5000 BATCHFLUX

for connection to signal converter IFC 012 K for filling machines with filling times > 1,5 s  
DC-field operation for liquids > 20 µS / cm, sandwich design with integrated converter

Page 13 a  
IFS 5000 BATCHFLUX

Code	Primary head									
VN29	0	1	IFS 5000	BATCH	DN 2,5	PN 40°	/	1/10"	optimized flowprofile tube	
		2	IFS 5000	BATCH	DN 4	PN 40°	/	1/8"	optimized flowprofile tube	
		3	IFS 5000	BATCH	DN 6	PN 40°	/	1/4"	optimized flowprofile tube	
		4	IFS 5000	BATCH	DN 10	PN 40°	/	3/8"	optimized flowprofile tube	
		5	IFS 5000	BATCH	DN 15	PN 40°	/	1/2"	optimized flowprofile tube	
		6	IFS 5000	BATCH	DN 25	PN 40°	/	1"	optimized flowprofile tube	
		7	IFS 5000	BATCH	DN 40	PN 40°	/	1 1/2"	optimized flowprofile tube	
		E	IFS 5000	BATCH	DN 15	PN 10°	/	1/2"	straight tube	
		G	IFS 5000	BATCH	DN 32	PN 10°	/	1 1/4"	straight tube	
<b>Pressure rating</b>										
		1	without (only sandwich)							
		5	PN 40	DIN 2501	(DN 2,5 - DN 40)					
		A	150 lb	ANSI RF	(1/10" - 1 1/2")					
		B	300 lb	ANSI RF	(1/10" - 1 1/2")					
		M	JIS 20 K							
		N	JIS 10 K							
<b>Protection category</b>										
		2	IP 67							
		3	IP 67	3A approval	in preparation					
<b>Version / Signal converter</b>										
		C	IFM 5012 K with IFC 012 (1 connector M12 x 1)							
		F	IFM 5014 K with IFC 014 (2 connectors M12 x 1) in preparation							
<b>Language operating manual</b>										
		0	without							
		1	german							
		2	english GB							
<b>Mounting material</b>										
		0	without							
		1	Steel							
		2	st. Steel A2							
		3	Rubber sleeves							
<b>Integrated earthing rings / Gaskets</b>										
		0	without							
		1	st. Steel 316 Ti		with O-Ring Viton	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		2	Hastelloy C4		with O-Ring Viton	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		4	st. Steel 316 Ti		with O-Ring EPDM	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		5	Hastelloy C4		with O-Ring EPDM	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		6	Titanium		with O-Ring EPDM	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		A	Hastelloy C4		with O-Ring KALREZ	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		B	Titanium		with O-Ring KALREZ	(DN 2,5 - DN 15 / 1/10" - 1/2")				
		C	Tantalum		PTFE / PF 29	(DN 2,5 - DN 15 / 1/10" - 1/2")				
<b>Option for ventilation</b>										
		0	standard							
		1	threaded connection G 1/8"							
<b>Threaded holes</b>										
		0	without							
		1	2x2 M4	on both sides	(DN 2,5 - DN 15 / 1/10" - 1/2")					
		3	2x4 M6	on both sides	(DN 2,5 - DN 15 / 1/10" - 1/2")					
*) dependent on construction of sealing										
VN29	0								Complete ordering code	

### Signal converter IFC 012 for BATCHFLUX IFM 5012 K

Integrated converter within stainless steel precision casting welded with primary head  
for filling machines with filling times > 1,5 s. DC-field operation for liquids > 20 µS / cm

Page 13 b  
IFC 012 K

Code	Signal converter								
VN37	0	1	IFC 012	K B/ pulse programmable to 10 kHz					1 electr. connector
		B	IFC 012	K B/ pulse/ status/ active - GND					1 electr. connector
		C	IFC 012	K B/ pulse/ status/ active - + 24 V					1 electr. connector
<b>Power supply</b>									
		4	24 V DC						
			Electrical connector M12 x 1						
		1	standard						
<b>Option</b>									
		0	Standard						
		5	reverse flow compensation						
<b>Operation manual / Operating language</b>									
		1	German	/	German				
		2	English GB	/	English GB				
		3	English US	/	English US				
		4	French	/	French				
VN37	0								Complete ordering code

Background

Water  
Wastewater

Abrazive,  
corrosive and  
hot products

Non-contact  
measurement  
K > 0,05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

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Compact  
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## Ordering Guide

### PROFIFLUX IFS 5000 / IFM 5080 K CAPAFLUX IFM 5080 K / CAP

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#### Earthing rings / Gaskets

will be supplied as standard version with integrated earthing rings and O-rings (between earthing ring and primary head). Material choice acc. price list IFS 5000

One earthing ring consists of a further flat gasket. Material choice acc. Following list. For each primary head 2 earthing rings are necessary.

#### Earthing rings / Gaskets DN 25 - 100

will be supplied as standard version with gaskets (gasket between primary head and pipe flanges). Optionally earthing rings available (prices see below)

Earthing ring / Gasket	Stock-No. for meter sizes ...					Dimensions resp. mounting length please refer to data sheet IFS 5000
Material	DN 25	DN 40	DN 50	DN 80	DN 100	
1.4571 (ss 316 Ti) / Gylon	1306615800	1306615400	1306615500	1306615600	1306615700	* Please pay attention to a different mounting length when using earthing rings made of Tantalum 0,5 mm
Hastelloy C4 / Gylon	1306615900	1306616000	1306615100	1306615200	1306615300	
1.4571 (ss 316 Ti) / Chemotherm	1306617900	1306618500	1306618900	1306617000	1306617100	
Hastelloy C4 / Chemotherm	1306616100	1306616200	1306616300	1306616400	1306616500	
* Tantalum / PTFE Form PF29	1306617800	1306618400	1306618200	1306618600	1306619300	

## Ordering Guide

Magnetic-inductive primary head IFS 6000 for connection to signal converter  
 IFC 010 K/F, IFC 020 K/F/E, IFC 090 K/F, IFC 110 F or IFC 210 E  
 DC-field operation for liquids with conductivity > 5 (water > 20) µS/cm

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 VARIFLUX IFS 6000

Code Primary head									
V321	0	1	IFS 6000	F	DN 2.5 / 1/10"	for flanges DN 10 / 1/2"	(not in connection to IFC 010)		
		2	IFS 6000	F	DN 4 / 1/8"	for flanges DN 10 / 1/2"	(not in connection to IFC 010)		
		3	IFS 6000	F	DN 6 / 1/4"	for flanges DN 10 / 1/2"	(not in connection to IFC 010)		
		5	IFS 6000	F	DN 10 / 3/8"	for flanges DN 10 / 1/2"			
		6	IFS 6000	F	DN 15 / 1/2"	for flanges DN 15 / 1/2"			
		8	IFS 6000	F	DN 25 / 1"				
		B	IFS 6000	F	DN 40 / 1 1/2"				
		C	IFS 6000	F	DN 50 / 2"				
		D	IFS 6000	F	DN 65 / 2 1/2"				
		E	IFS 6000	F	DN 80 / 3"				
<b>Connection / Pressure rating</b>									
		5	flange	PN 40	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		A	flange	150 lb RF	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		B	flange	300 lb RF	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		M	flange	JIS 20 K	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		H / K / L / S / T / X	aseptic connections see price list 16			(gasket EPDM)			
<b>Connection box</b>									
		0	without	(modular)					
		2	IP 67	connection box Alu					
		3	IP 67	connection box st. Steel 1.4301 (304)				(PG 13.5)	
<b>Version / Signal converter</b>									
		1	IFS 6000 F	(without converter)					
		2	IFS 6000	(modular) separate version without connection box					
		3	IFM 6010 K	(for IFC 010 K)					
		4	IFM 6010 F	(for IFC 010 F)					
		6	IFM 6080 K	(for IFC 090 K)					
		7	IFM 6080 F	(for IFC 090 F)					
		A	IFM 6110 F	(for IFC 110 F)					
		B	IFM 6210 E	(for IFC 210 E)					
		E	IFM 6020 K	(for IFC 020 K)					
		F	IFM 6020 F	(for IFC 020 F)					
		G	IFM 6020 E	(for IFC 020 E)					
		M	IFM 6080 K/Ex-I	(for IFC 090 K/Ex-I)					
		N	IFM 6080 F/Ex-I	(for IFC 090 F/Ex-I)					
<b>Language / Operating manual</b>									
		1	D	2	GB	3	US	4	F
		5	D	6	GB	7	US	8	F
		A	D	B	GB	C	US	D	F
		E	D	F	GB	G	US	H	F
									modular/compact
<b>Cable connection</b>									
									PG 13.5
									1/2" NPT
									PF 1/2
									modular/compact
<b>Approval</b> (Ex-protection only in connection to IFC 090 Ex, IFC 110 Ex or IFC 210 Ex)									
		0	without						
		5	EEx	zone 1					
		6	Ex nA	zone 2					
<b>Integrated seating rings / Gaskets</b>									
		1	St. Steel 316 Ti	incl. O-ring Viton	(DN 2.5 - DN 15 / 1/10" - 1/2")				/ without (≥ DN 25)
		3	Hastelloy C	incl. O-ring Viton	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		5	St. Steel 316 Ti	incl. O-ring EPDM	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		6	Hastelloy C	incl. O-ring EPDM	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		7	St. Steel 316 Ti	incl. O-ring Kalrez	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		8	Hastelloy C	incl. O-ring Kalrez	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		A	Titanium	incl. O-ring EPDM	(DN 2.5 - DN 15 / 1/10" - 1/2")				
		B	Titanium	incl. O-ring Kalrez	(DN 2.5 - DN 15 / 1/10" - 1/2")				
<b>Material of electrodes</b>									
		1	Stainless Steel 316 Ti						
		3	Hastelloy C						
		4	Hastelloy B2						
		5	Tantalum						
		6	Titanium						
		7	Platinum (welded parts)		(DN 2.5 - DN 80 / 1/10" - 3")				
<b>Primary constant</b>									
		0	standard	(incl. converter)					
		5	GK + GKL	(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
V321	0								Complete ordering code

## Primary head IFS 6000 VARIFLUX

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 IFS 6000 VARIFLUX  
 Connection overview

Code	Connection	DN	DN	DN	DN	DN	DN
		2.5 - 15 1/10-1/2"	25 1"	40 1 1/2"	50 2"	65 2 1/2"	80 3"
H	sanitary connection DIN 11851						
K	SMS 1145 (from DN 25 / 1")						
L	CLAMP ISO 2852						
X	screw connection ISO 2853						
S	aseptic thread with butt weld ends acc. DIN 11 850						
T	aseptic thread with butt weld ends acc. ISO 2037						

Background

Water  
 Wastewater

Abstractive,  
 corrosive and  
 hot products

Non-contact  
 measurement  
 < 0.05 µS/cm

Food,  
 Beverage,  
 Pharmaceutical

High Pressure  
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## Ordering Guide

Signal converter IFC 010 for connection to primary head  
IFS 1000 / 4000 ( $\leq$  DN 1000) / 5000 / 6000 ( $\geq$  DN 10) (DC-field operation)

Page 17  
IFC 010

Code		Signal converter	
V311	0	1	IFC 010 K B
		2	IFC 010 K B HART RS 485
		4	IFC 010 K D
		6	modular IFC 010 B
		7	modular IFC 010 B HART RS 485
		8	modular IFC 010 D
		A	IFC 010 F B
		B	IFC 010 F B HART RS 485
		D	IFC 010 F D
<b>Power supply</b>			
		2	100 V AC (Japan)
		4	24 V DC
		5	24 V AC
		7	100 V AC
		8	115 / 120 V AC
		B	200 V AC
		C	230 / 240 V AC
		D	48 V AC
<b>Cable connection</b>			
		2	PG 13.5 (2x)
		3	1/2" NPT
		4	PF 1/2
		A	PG 13.5 (2x) Swiss
<b>Option</b>			
		0	standard (none)
		1	LA S2/S
		2	LA S3/S
		3	LA S4/S
		A	frequency output 10 kHz
<b>Operation manual / Operating language</b>			
		1	german / german
		2	english GB / english GB
		3	english US / english US
		4	french / french
! no parallel operation of HART and RS 485 !			
V311	0		Complete ordering code

## Ordering Guide

Signal converter IFC 020 for connection to primary head  
IFS 1000 / Aquallux 4000 (≤ DN 1600) / 5000 / 6000 (DC-field operation)

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IFC 020

Code	Signal converter
V312	0
	3 IFC 020 K D D HART RS 485
	7 modular IFC 020 D HART RS 485
	C IFC 020 F D D HART RS 485
	E IFC 020 E D D HART RS 485
	<b>Power supply</b>
	2 110 V AC (Japan)
	4 24 V DC (only IFC 020 E)
	5 24 V AC
	7 100 V AC
	8 115 / 120 V AC
	B 200 V AC
	C 230 / 240 V AC
	D 48 V AC
	E 12 V DC (only IFC 020 E)
	<b>Cable connection</b>
	2 PG 13.5 (2x)
	3 1/2" NPT
	4 PF 1/2
	A PG 13.5 (3x) Swiss
	B strip: tag (only IFC 020 E)
	C strip: screw terminal (only IFC 020 E)
	D strip: wire-wrap (only IFC 020 E)
	E strip: termi-point (only IFC 020 E)
	<b>Special version</b>
	0 standard (none)
	1 LA 52/S
	<b>Operating manual / Operating language</b>
	1 german / german
	2 english GB / english GB
	3 english US / english US
	4 french / french
	<b>Mounting</b>
	1 version 1 compact / separate / 19"
	2 version 2 compact
	3 version 3 compact
	4 version 4 compact
	1 no parallel operation of HART and RS 485
V312	complete ordering code

Background

Water  
Wastewater

Abbrasive,  
corrosive and  
hot products

Non-contact  
measurement  
K: 0.05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

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Compact  
and Remote

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## Ordering Guide

Signal converter IFC 090 for connection to primary head  
 IFS 1000 / 2000 / Aquaflex 4000 (≤ DN 1600) / 5000 / 6000 (DC-field operation)

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 IFC 090

Code		Signal converter	
V317	0	1	IFC 090 K B
		2	IFC 090 K B HART
		4	IFC 090 K D
		5	IFC 090 K D HART
		7	IFC 090 modular B
		8	IFC 090 modular B HART
		B	IFC 090 modular D
		C	IFC 090 modular D HART
		E	IFC 090 F B
		F	IFC 090 F B HART
		H	IFC 090 F D
		K	IFC 090 F D HART
		M	IFC 090 K CAP B
		N	IFC 090 K CAP B HART
		P	IFC 090 K CAP D
		R	IFC 090 K CAP D HART
		<b>Power supply</b>	
		2	100 V AC (Japan)
		4	24 V DC / AC
		7	100 V AC
		8	115 / 120 V AC
		B	200 V AC
		C	230 / 240 V AC
		<b>Ex-version</b>	
		0	without
		1	EEx terminal compartment "e" 5080 K
		2	EEx terminal compartment "d" 5080 K
		4	EEx terminal compartment "e" 4080 K
		5	EEx terminal compartment "d" 4080 K
		7	EEx terminal compartment "e" 6080 K
		8	EEx terminal compartment "d" 6080 K
		M	IFC 090 F- EEx
		<b>Cable connection</b>	
		2	2 x PG 13,5
		3	2 x 1/2" NPT
		4	2 x PF 1/2"
		<b>Operating manual / Operating language</b>	
		1	german / german
		2	english GB / english GB
		3	english US / english US
		4	french / french
		<b>Mounting position</b>	
		1	version A standard / separate
		2	version B
		3	version C
		4	version D (not IFM 5080 K)
		5	version E (not IFM 5080 K)
		<b>Special version</b>	
		1	standard
		2	LA S2/S
		3	LA S3/S
		4	LA S4/S
V317			Complete ordering code

## Ordering Guide

### Signal converter IFC 090 i-EEEx for connection to primary head IFS 4000 Ex / 5000 Ex / 6000 Ex (DC-field operation) Intrinsically safe outputs!

Page 20  
IFC 090 i-EEEx

Code		Signal converter							
V324	0	4	IFC 090 i-Ex	K D	(plus output modules, pls. see below)				
		H	IFC 090 i-Ex	F D	(plus output modules, pls. see below)				
		P	IFC 090 i-Ex	K CAP D	(plus output modules, pls. see below)				
		<b>Power supply</b>							
		4	24	V	AC / DC				
		D	100 - 230	V	AC				
		<b>Ex-version</b>							
		0	without (Non EEx)						
		1	EEEx terminal compartment "e"		5080 K/i-EEEx				
		2	EEEx terminal compartment "d"		5080 K/i-EEEx				
		4	EEEx terminal compartment "e"		4080 K/i-EEEx				
		5	EEEx terminal compartment "d"		4080 K/i-EEEx				
		7	EEEx terminal compartment "e"		6080 K/i-EEEx				
		8	EEEx terminal compartment "d"		6080 K/i-EEEx				
		G	IFC 090 F/i - EEEx	(terminal compartment "e")		Only IFC 090 i-EEEx F / D			
		<b>Ex-i output</b>							
		1	Ex-i 1	mA (passive) + HART + binary input/output (passive)					
		2	Ex-i 2	mA (passive) + HART / Profibus PA (HART and Profibus only alternatively)					
		3	Ex-i 3	mA (active) + HART		Not for 100 - 230 V AC !			
		4	Ex-i 4	binary input/output (passive) + Profibus PA					
		5	Ex-i 5	binary input/output (active)		Not for 100 - 230 V AC !			
		6	Ex-i 6	binary input/output (passive) + binary input/output (passive)					
		<b>Operating manual</b>					<b>Cable connection</b>		
		1	G	2 GB	3 US	4 F	PG 13,5		
		5	G	6 GB	7 US	8 F	1/2" NPT		
		A	G	B GB	C US	D F	PF 1/2		
		<b>Mounting position</b>							
		1	version	A	standard / separate				
		2	version	B					
		3	version	C					
		4	version	D	(not IFM 5080 K)				
		5	version	E	(not IFM 5080 K)				
		<b>Special version</b>							
		0	standard	(none)					
		1	LA S2/S						
		2	LA S3/S						
		3	LA S4/S						
V324									Complete ordering code

### Signal converter IFC 090 Profibus for connection to primary head AQUAFLUX / IFS 1000 / 2000 / 4000 / 5000 / 6000 (DC-field operation) Version only for non-EEEx

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IFC 090 i - non EEEx

Code		Signal converter							
V324	0	4	IFC 090	K D	(plus output modules, pls. see below)				
		B	IFC 090	Modular	(plus output modules, pls. see below)				
		H	IFC 090	F D	(plus output modules, pls. see below)				
		P	IFC 090	K CAP D	(plus output modules, pls. see below)				
		<b>Power supply</b>							
		4	24	V	AC / DC				
		D	100 - 230	V	AC				
		<b>Ex-version</b>							
		0	without (Non EEEx)						
		<b>Ex-i output</b>							
		B	I 2	mA (passive) + HART / Profibus PA (HART and Profibus only alternatively)					
		D	I 4	binary input/output (passive) + Profibus PA					
		<b>Operating manual</b>					<b>Cable connection</b>		
		1	G	2 GB	3 US	4 F	PG 13,5		
		5	G	6 GB	7 US	8 F	1/2" NPT		
		A	G	B GB	C US	D F	PF 1/2		
		<b>Mounting position</b>							
		1	version	A	standard / separate				
		2	version	B					
		3	version	C					
		4	version	D	(not IFM 5080 K)				
		5	version	E	(not IFM 5080 K)				
		<b>Special version</b>							
		0	standard	(none)					
		1	LA S2/S						
		2	LA S3/S						
		3	LA S4/S						
V324									Complete ordering code

Background

Water  
Wastewater

Abusive,  
corrosive and  
hot products

Non-contact  
measurement  
K: 0.05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

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## Ordering Guide

Signal converter SC 150 for connection to primary head  
IFS 2005 or IFS 4005 (heavy-duty DC-field)

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SC 150

Code		Signal converter		
V309	0	1	SC 150	
		2	SC 150 MP	
		<b>Power supply</b>		
		D	100 - 240 V AC	
		<b>Ex-version</b>		
		1	without	
		<b>Cable connection</b>		
		1	5 x PG 13,5	
		2	5 x 1/2" NPT	
		3	5 x PF 1/2"	
		<b>Operating manual / Operating language</b>		
		1	german / german	
		2	english GB / english GB	
		3	english US / english GB	
		4	french / french	
V309	0	D	1	Complete ordering code

Background

Water  
Wastewater

Ab abrasive,  
corrosive and  
hot products

Non-contact  
measurement  
 $K < 0,05 \mu\text{S/cm}$

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

Signal converter  
Compact  
and Remote

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## Ordering Guide

Magnetic-inductive primary head Tidalflex IFS 4000 PF  
for measuring flow in partially filled pipes

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TIDALFLUX IFS 4000 PF

To be used with signal converters IFC 110 PF only! DC-field operation for liquids with conductivity > 50 µS / cm

Primary head									
V315	0	E	IFS 4000	PF	DN 200 /	8"		Irathane	
		F	IFS 4000	PF	DN 250 /	10"		Irathane	
		G	IFS 4000	PF	DN 300 /	12"		Irathane	
		H	IFS 4000	PF	DN 350 /	14"		Irathane	
		K	IFS 4000	PF	DN 400 /	16"		Irathane	
		M	IFS 4000	PF	DN 500 /	20"		Irathane	
		N	IFS 4000	PF	DN 600 /	24"		Irathane	
		P	IFS 4000	PF	DN 700 /	28"		Irathane	
		R	IFS 4000	PF	DN 800 /	32"		Irathane	
		S	IFS 4000	PF	DN 900 /	36"		Irathane	
		T	IFS 4000	PF	DN 1000 /	40"		Irathane	
		U	IFS 4000	PF	DN 1200 /	48"		Irathane	
		<b>Pressure rate</b>							
		1	PN 6	DIN 2501	smooth packing strip			(DN 1200)	
		2	PN 10	DIN 2501	smooth packing strip				
		A	ANSI 150 lb RF						
		<b>Protection category / Approval</b>							
		1	IP 67						
		3	IP 67 Ex nA zone 2						
		<b>Power supply</b>							
		5	24 V AC						
		8	115 / 120 V AC						
		C	230 / 240 V AC						
		<b>Language Operating manual</b>				<b>Cable connection</b>			
		1	D	2	GB	3	US	4	F
		5	D	6	GB	7	US	8	F
		A	D	B	GB	C	US	D	F
									PG 13,5
									1/2" NPT
									PF 1/2
		<b>Version / Signal converter</b>							
		1	IFM 4110 PF (with IFC 110 PF)						
		2	IFS 4000 PF incl. connection box						
		<b>Electrodes</b>							
		1	st. Steel 1.4571						
		3	Hastelloy C						
0									
4									
4									
0									
V315									Complete ordering code

## Ordering Guide

Earthing rings DN 10 - 1000 for standard pressure rating / DIN

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ALTOFLUX IFS 4000 / AQUAFLUX

Earthing rings st. Steel 316 II, 3 mm

Stock-no.				Stock-no.			
DN 10	protection ring	no. 2	2305200100	DN 200	earthing ring	no. 1	2305052800
					protection ring	no. 2	2305200300
DN 15	protection ring	no. 2	2305070100		earthing ring	no. 3	2306790900
DN 20	protection ring	no. 2	2305070300	DN 250	earthing ring	no. 1	2305052400
DN 25	earthing ring	no. 1	2305050700		protection ring	no. 2	2305072400
	protection ring	no. 2	2305070700		earthing ring	no. 3	2309093300
	earthing ring	no. 3	2306793000	DN 300	earthing ring	no. 1	2305052600
DN 32	earthing ring	no. 1	2305050900		protection ring	no. 2	2305070500
	protection ring	no. 2	2305070900		earthing ring	no. 3	2306791800
	earthing ring	no. 3	2306793100	DN 350	earthing ring	no. 1	2307211000
DN 40	earthing ring	no. 1	2305051000		protection ring	no. 2	2308540800
	protection ring	no. 2	2305071000		earthing ring	no. 3	2306793200
	earthing ring	no. 3	2309092100	DN 400	earthing ring	no. 1	2307211100
DN 50	earthing ring	no. 1	2305051000		protection ring	no. 2	23085402600
	protection ring	no. 2	2305071000		earthing ring	no. 3	2307941000
	earthing ring	no. 3	2309092100	DN 500	earthing ring	no. 1	2307211200
DN 65	earthing ring	no. 1	2305051200		protection ring	no. 2	2309201900
	protection ring	no. 2	2305071200		earthing ring	no. 3	2307942300
	earthing ring	no. 3	2306796500	DN 600	earthing ring	no. 1	2307211300
DN 80	earthing ring	no. 1	2305051500		protection ring	no. 2	2305235700
	protection ring	no. 2	2305071500		earthing ring	no. 3	2307941500
	earthing ring	no. 3	2309093600	DN 700	earthing ring	no. 1	2307882000
DN 100	earthing ring	no. 1	2305051700		protection ring	no. 2	2309200800
	protection ring	no. 2	2305071700		earthing ring	no. 3	2307941600
	earthing ring	no. 3	2309092800	DN 800	earthing ring	no. 1	2307881400
DN 125	earthing ring	no. 1	2305051900		protection ring	no. 2	2305239100
	protection ring	no. 2	2305071900		earthing ring	no. 3	2307942900
	earthing ring	no. 3	2309099800	DN 900	earthing ring	no. 1	2308870800
DN 150	earthing ring	no. 1	2305052000		earthing ring	no. 3	2309099100
	protection ring	no. 2	2305072000	DN 1000	earthing ring	no. 1	2308512100
	earthing ring	no. 3	2305400700		earthing ring	no. 3	2306795200

Background

Water  
Wastewater

Abbrasive,  
corrosive and  
hot products

Non-contact  
measurement  
K: > 0.05 µS/cm

Food,  
Beverage,  
Pharmaceutical

High Pressure  
and special  
connections

Signal converter  
Compact  
and Remote

Remote

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## Ordering Guide

Earthing rings 3/8" - 40" / ANSI 150 lb

Page 26 + 27  
ALTOFLUX IFS 4000 / AQUAFLUX

Earthing rings st. Steel 316 ti, 3 mm

				Stock-no.					Stock-no.		
3/8"	protection ring	no. 2	2305200200	8"	earthing ring	no. 1	2305052900	8"	protection ring	no. 2	2305072900
1/2"	protection ring	no. 2	2305070200		earthing ring	no. 3	2305400400				
3/4"	protection ring	no. 2	2305070400	10"	earthing ring	no. 1	2305052500	10"	protection ring	no. 2	2305072500
1"	earthing ring	no. 1	2305050800		protection ring	no. 2	2305072500		earthing ring	no. 3	2309099400
	protection ring	no. 2	2305070800	12"	earthing ring	no. 1	2305052700	12"	protection ring	no. 2	2305070600
	earthing ring	no. 3	2305400500		protection ring	no. 2	2305070600		earthing ring	no. 3	2306791400
1 1/4"	earthing ring	no. 1	2305078300	14"	earthing ring	no. 1	2308873000	14"	protection ring	no. 2	2306482800
	protection ring	no. 2	2305200800		protection ring	no. 2	2306482800		earthing ring	no. 3	2309093700
	earthing ring	no. 3		16"	earthing ring	no. 1	2307881500	16"	protection ring	no. 2	2308540300
1 1/2"	earthing ring	no. 1	2305051100		protection ring	no. 2	2308540300		earthing ring	no. 3	2307943200
	protection ring	no. 2	2305071100	20"	earthing ring	no. 1	2307211800	20"	protection ring	no. 2	2309203300
	earthing ring	no. 3	2306793400		protection ring	no. 2	2309203300		earthing ring	no. 3	2309091900
2"	earthing ring	no. 1	2305051300	24"	earthing ring	no. 1	2307213100	24"	protection ring	no. 2	2309200300
	protection ring	no. 2	2305071300		protection ring	no. 2	2309200300		earthing ring	no. 3	2309098000
	earthing ring	no. 3	2306793700	28"	earthing ring	no. 1	2305175000	28"	protection ring	no. 2	
2 1/2"	earthing ring	no. 1	2308876400		protection ring	no. 2			earthing ring	no. 3	
	protection ring	no. 2	2306481200	32"	earthing ring	no. 1	2308876300	32"	protection ring	no. 2	
	earthing ring	no. 3			protection ring	no. 2			earthing ring	no. 3	
3"	earthing ring	no. 1	2305051600	36"	earthing ring	no. 1	2307213300	36"	earthing ring	no. 1	2307213300
	protection ring	no. 2	2305071600		protection ring	no. 2	2306797500		earthing ring	no. 3	2306797500
	earthing ring	no. 3	2309090600	40"	earthing ring	no. 1		40"	earthing ring	no. 1	
4"	earthing ring	no. 1	2305051800		protection ring	no. 2			earthing ring	no. 3	
	protection ring	no. 2	2305071800		earthing ring	no. 3					
	earthing ring	no. 3	2305401900								
5"	earthing ring	no. 1	2305075400								
	protection ring	no. 2	2305237800								
	earthing ring	no. 3	2306798500								
6"	earthing ring	no. 1	2305052100								
	protection ring	no. 2	2305072100								
	earthing ring	no. 3	2307940900								

## Ordering Guide

### Signal cable MID

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Cable type	recommended for converter type	Stock-no.
DS grey	SC 100 AS, IFC 080 F, IFC 200, IFC 020 F/E, IFC 010 F, IFC 110 F, IFC 090 F, SC 150, IFC 210 E	5076480000
DS blue	SC 100 AS-Ex, SC 80 AS/F-Ex, IFC 210 E/Ex, IFC 200 Ex, IFC 090 F/Ex, IFC 110 F/Ex	5076480600
	SC 100 AS, IFC 080 F, IFC 200, IFC 020 F, IFC 110 F, SC 150,	5076470000
BTS blue	SC 100 AS-Ex, SC 80 AS/F-Ex, IFC 210 E/Ex, IFC 200 Ex	5076470600
Vulto 3 x 1,5 mm <sup>2</sup>	(when IP 68)	5302890100
LJCY	signal cable, grey, 3 x 1,5 mm <sup>2</sup>	5062100800
LJCY	5 x 0,75 mm <sup>2</sup> (data cable Tidalflex SC 100 PF)	5315290200
LJCY	3 x 1,5 mm <sup>2</sup> (data cable Tidalflex IFC 110 PF)	5315290300
LJCY	4 x 2,5 mm <sup>2</sup> (DIV II cable)	5302890500
A & G USC (ultrasonic cleaning)		5302640100
<b>Cable Silicone coated for high temperature operation of IFS 5000 F, IFS 5000 F and F Ex (only DN 2,5 - 15) &gt; 150 °C</b>		
	BIHFC redbrown, screened, signal cable	5071910000
	BIHTC blue, screened, signal cable (Ex)	5071920000
	SIHSI redbrown (unscreened)	5071930000
<i>For cable length &gt; 5 m we recommend an installation of an external connection</i>		
<i>Continuing cable DS or BTS as described before</i>		
	external connection box standard	2059930100
	external connection box Ex	2059930000
<b>Recommended mounting kit for IFS 5000 F:</b>		
	1 x 5 m Silicone cable BIHFC, screened	
	1 x 5 m Silicone cable SIHSI, unscreened	
	1 x external connection box, standard	1312910500
<b>Recommended mounting kit for IFS 5000 F / Ex:</b>		
	1 x 5 m Silicone cable BIHFC, screened	
	1 x 5 m Silicone cable SIHSI, unscreened	
	1 x external connection box Ex	1312910600

Background

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