

Electromagnetic Flowmeters



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

Variable area flowmeters

Vortex flowmeters

Flow controllers

Electromagnetic flowmeters

Ultrasonic flowmeters

Mass flowmeters

Level measuring instruments

Communications engineering

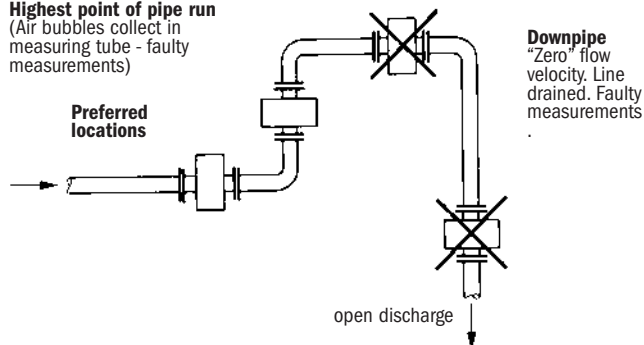
Engineering systems & solutions

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:

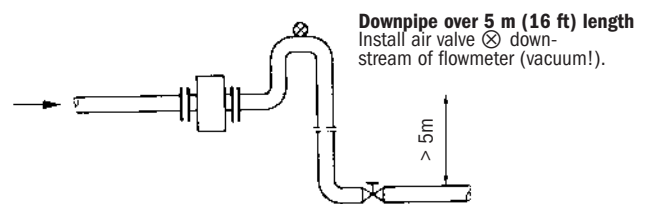
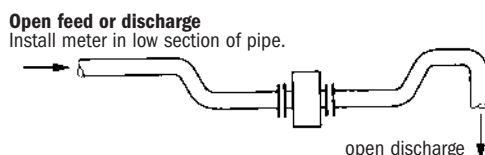
Highest point of pipe run
(Air bubbles collect in measuring tube - faulty measurements)



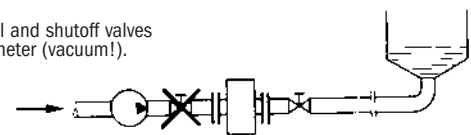
Horizontal pipe run
Install in slightly ascending pipe section



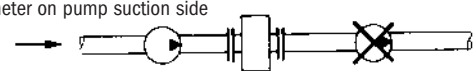
Open feed or discharge
Install meter in low section of pipe.



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 µS/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 ³ /h

From the table we obtain for the flow velocity of 1 m/s a flow rate of 63.617 m³/h at DN 150; for 200 m³/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 ³ /h	Meter size DN mm	Flow rate m ³ /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 ¹ / ₁₀	0.024480	10	244.80
1 ¹ / ₈	0.038250	12	352.51
1 ¹ / ₄	0.15300	14	479.81
3 ³ / ₈	0.34425	16	626.69
1 ¹ / ₂	0.61200	20	979.21
3 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

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Sizing Guide 3.1

Protection classes

to IEC 529/EN 60529

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

ζ_1, ζ_3 nondimensional quantities as a function of the Reynolds number (see diagrams)

ζ_2 nondimensional quantity: 0.02 for KROHNE flowmeters

ρ density in kg/m³

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

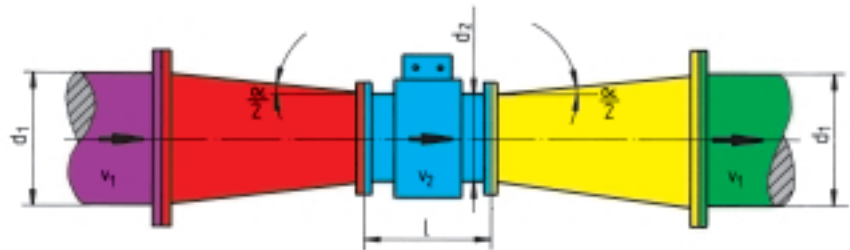
$$\Delta p_2 = \frac{\rho}{2} \times \zeta_2 \times v_2^2 \times 3.654 \times 10^{-4}$$

(3) Pressure loss, expanding section

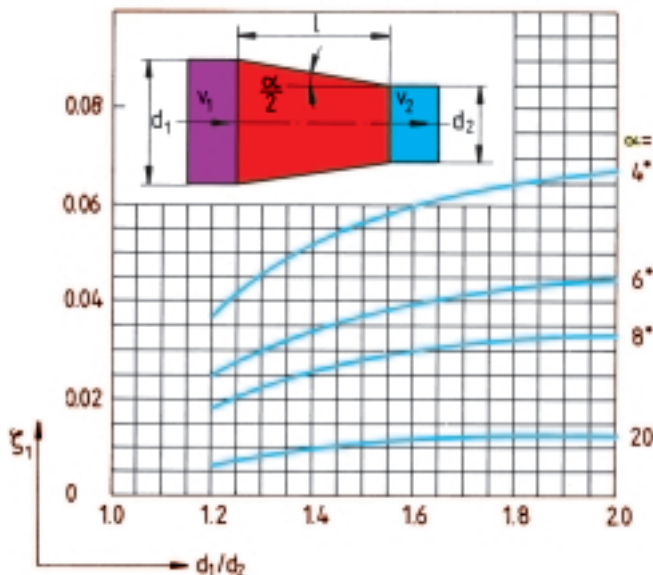
$$\Delta p_3 = \frac{\rho}{2} \times \zeta_3 \times v_1^2 \times 3.654 \times 10^{-4}$$

Total pressure loss is:

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

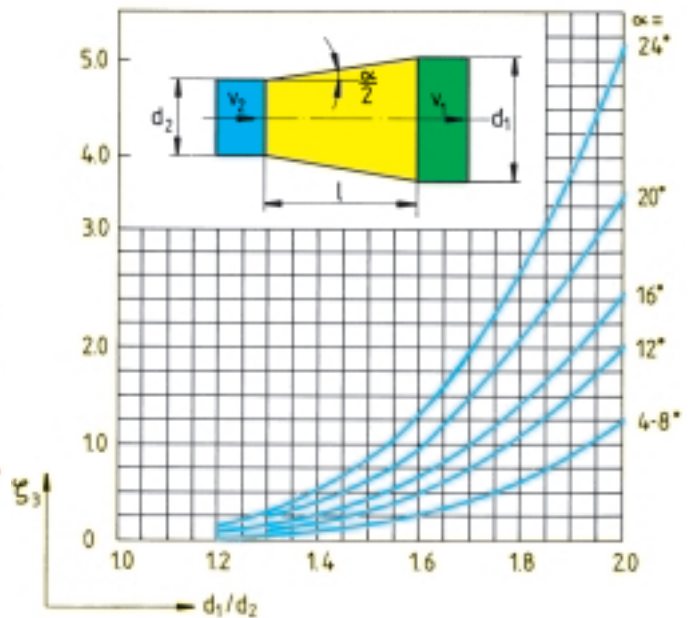


Reducing section



The reducing angle (α) should not exceed 8° (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.

Expanding section



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

ζ 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
ζ_1	0.018	0.023	0.0255	0.028	0.03	0.0308	0.0315	0.0323	0.0332
ζ_3	0.01	0.02	0.07	0.15	0.26	0.43	0.64	0.9	1.25

Sizing Guide 3.1

Ordering Guide

Magnetic-inductive primary head IFS 1000 F for connection to signal converter

Page 01
ECOFLUX IFS 1000

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

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"					
Pressure rating													
		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]					
Mounting material													
		1	Steel, galv.	/	Rubber sleeves								
		2	st. Steel A2	/	Rubber sleeves								
		3	Rubber sleeves										
Version / Signal converter													
		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			
Language Operating manual													
		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			
		E	D	F	GB	G	US	H	F	PF 1/2			
										modular/compact			
Calibration													
		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	4											
Complete ordering code													

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
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Magnetic-inductive primary head IFS 2000 F / IFS 2005 F for connection to
signal converter IFC 090 F, IFC 110 F or SC 150
DC-field operation for liquids with conductivity > 5 (water > 20) µS/cm

Page 02
ALTOFLUX IFS 2000 / 2005

Code Primary head										
V322	0	D	IFS 2000	F	DN 150	/	6"			
		E	IFS 2000	F	DN 200	/	8"			
		F	IFS 2000	F	DN 250	/	10"			
		Pressure rating								
		2	PN 10	DIN 2501	smooth packing strip		(DN 200 - DN 250)			
		3	PN 16	DIN 2501	smooth packing strip		(DN 150)			
		A	ANSI 150 lb FF							
		N	JIS 10 K							
		Material of electrodes								
		1	1.4571							
		3	Hastelloy C4							
		5	Tantalum							
		6	Titanium							
		7	Platinum DN 150							
		7	Platinum ≥ DN 200							
		G	Low-Noise (basic material Hastelloy C4) <i>others see price list 12</i>							
		Version / Signal converter								
		1	IFS 2000 F (<i>without</i> converter)							
		3	IFS 2005 F (<i>without</i> converter)							
		A	IFM 2110 F (for IFC 110 F)							
		B	IFM 2155 F (for SC 150)							
		V	IFM 2080 F (for IFC 090 F)							
		Language Operating manual				Cable connection				
		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
		Gasket of electrodes								
		1	Viton							
		2	Kalrez							
		Integrated earthing rings / Gaskets								
		1	st. Steel 316L	mit O-Ring Viton			DN 150			
		1	st. Steel 316L	mit O-Ring Viton			DN 200			
		1	st. Steel 316L	mit O-Ring Viton			DN 250			
		Calibration								
		0	standard (incl. converter)							
		6	GK + GKH (for IFC 090, IFC 110, SC 150)							
		Mounting of electrodes								
		1	fixed							
		2	replaceable in workshop							
V322									Complete ordering code	

Ordering Guide

Magnetic-inductive primary head IFS 4000 for connection to signal converter

IFS 010 K/F, IFS 020 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 03

ALTOFLUX IFS 4000

DN 10 - DN 20 / 3/8" - 3/4"

Code Primary head											
V303	0	1	IFS 4000	F	DN 10	/	3/8"	flanges 1/2"	PTFE		
		2	IFS 4000	F	DN 15	/	1/2"	PTFE			
		3	IFS 4000	F	DN 20	/	3/4"	PTFE			
Pressure rating											
		5	PN 40	DIN 2501							
		A	ANSI 150	lb RF							
		M	JIS 20 K								
		N	JIS 10 K								
others on request											
Protection category (Ex-protection only in connection to IFC 090 Ex, IFC 110 Ex or IFC 210 Ex)											
		1	IP 67								
		2	IP 68	DS, 10 m	ISO-length						
		3	IP 68	BTS, 10 m	ISO-length						
		4	IP 67	EEx zone 1	ISO-length						
		5	IP 67	Ex nA zone 2	ISO-length						
		6	IP 68	Ex nA zone 2	ISO-length						
		7	IP 67	SEV EEx (Swiss)	ISO-length						
		8	IP 68	DS/LIYCY, 10 m	ISO-length						
		A	IP 67	A Ex / Div 1 (USA)	ISO-length						
		B	IP 67	A Ex / Div 2 (USA)	ISO-length						
		C	IP 67	J Ex (Japan)	ISO-length						
		D	IP 67	C/GP (CSA / Canada)	ISO-length						
		G	IP 67		ISO-length						
		H	IP 68	DS, 10 m	ISO-length						
		K	IP 68	BTS, 10 m	ISO-length						
		L	IP 67	EEx zone 1	ISO-length						
		M	IP 67	Ex nA zone 2	ISO-length						
		N	IP 68	Ex nA zone 2	ISO-length						
		V	IP 67	SEV EEx (Swiss)	ISO-length						
		P	IP 68	DS/LIYCY, 10 m	ISO-length						
		R	IP 67	A Ex / Div 1 (USA)	ISO-length						
		S	IP 67	A Ex / Div 2 (USA)	ISO-length						
		T	IP 67	J Ex (Japan)	ISO-length						
		U	IP 67	C/GP (CSA / Canada)	ISO-length						
Version / Signal converter											
		1	IFS 4000 F	(without converter)							
		4	IFS 4000	(modular) separate version without connection box							
		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)							
		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)							
Language Operating manual											
		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	
		E	D	F	GB	G	US	H	F	PF 1/2	
										modular/compact	
Liner (Option)											
		0	standard								
		2	provided for protection rings								
Electrodes											
		3	Hastelloy C (standard)								
		4	Hastelloy B2								
		5	Tantalum								
		6	Titanium								
		7	Platinum (wetted parts)								
			others see price list 12								
Mounting of electrodes											
		1	fixed								
Material of flange											
		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								
Primary constant											
		0	standard (incl. converter)								
		5	GK + GKL (for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)								
V303	0	1	IFS 4000	F	DN 10	/	3/8"	flanges 1/2"	PTFE	Complete ordering code	

Background

Water
Wastewater

Abrasive,
corrosive and
hot products

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

Food,
Beverage,
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High Pressure
and special
connections

Signal converter
Compact
and Remote

Remote

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Ordering Guide

Magnetic-inductive primary head IFS 4000 / IFS 4005 F
for connection to signal converter IFC 010 K/F, IFC 020 K/F/E,
IFC 090 K/F, IFC 110 F, IFC 210 E or SC 150 (≥ DN 50)
DC-field operation for liquids with conductivity > 5 (water > 20) µS/cm

Page 04
ALTOFLUX IFS 4000 / 4005
DN 25 - DN 150 / 1" - 6"

Code Primary head												
V303	0	4	IFS 4000	F	DN 25	/	1"			Teflon PFA		
		5	IFS 4000	F	DN 32	/				Teflon PFA		
		6	IFS 4000	F	DN 40	/	1 1/2"			Teflon PFA		
		7	IFS 4000	F	DN 50	/	2"			Teflon PFA		
		8	IFS 4000	F	DN 65	/				Teflon PFA		
		A	IFS 4000	F	DN 80	/	3"			Teflon PFA		
		B	IFS 4000	F	DN 100	/	4"			Teflon PFA		
		C	IFS 4000	F	DN 125	/				Teflon PFA		
		D	IFS 4000	F	DN 150	/	6"			Teflon PFA		
Pressure rating												
		3	PN 16		DIN 2501		(DN 65, 100 - DN 150)					
		5	PN 40		DIN 2501		(DN 25 - DN 80 <i>without</i> DN 65)					
		A	ANSI 150		lb RF							
		M	JIS 20 K				(DN 25 - DN 50)					
		N	JIS 10 K				(DN 65 - DN 150)			<i>others on request</i>		
Protection category (Ex-protection only in connection to IFC 090 Ex, IFC 110 Ex or IFC 210 Ex)												
		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		DS/LIYCY, 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/GP (CSA / Canada)							
		G	IP 67				ISO-length					
		H	IP 68		DS, 10 m		ISO-length					
		K	IP 68		BTS, 10 m		ISO-length					
		L	IP 67		EEx zone 1		ISO-length					
		M	IP 67		Ex nA zone 2		ISO-length					
		N	IP 68		Ex nA zone 2		ISO-length					
		V	IP 67		SEV EEx (Swiss)		ISO-length					
		P	IP 68		DS/LIYCY, 10 m		ISO-length					
		R	IP 67		A Ex / Div 1 (USA)		ISO-length					
		S	IP 67		A Ex / Div 2 (USA)		ISO-length					
		T	IP 67		J Ex (Japan)		ISO-length					
		U	IP 67		C/GP (CSA / Canada)		ISO-length					
Version / Signal converter												
		1	IFS 4000 F				(without converter)					
		2	IFS 4005 F				(without converter > DN 50)					
		4	IFS 4000				(modular) separate version <i>without</i> connection box					
		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/> DN 50)					
		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)					
Language Operating manual												
		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
Cable connection												
												PG 13,5
												1/2" NPT
												PF 1/2
												modular/compact
Liner (Option)												
		0	standard									
		S	provided for protection rings									
Electrodes												
		3	Hastelloy C (standard)									
		4	Hastelloy B2									
		5	Tantalum									
		6	Titanium									
		7	Platinum (wetted parts)									<i>others see price list page 12</i>
Mounting of electrodes												
		1	fixed (new construction)									
		2	replaceable (old construction)									
Material of flange												
		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									
Primary constant												
		0	standard				(incl. converter)					
		5	GK + GKL				(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)					
		6	GK + GKL				(for IFC 020, IFC 090, IFC 110, IFC 210, SC 150)					
V303	0	4	IFS 4000	F	DN 25	/	1"			Teflon PFA		
		5	IFS 4000	F	DN 32	/				Teflon PFA		
		6	IFS 4000	F	DN 40	/	1 1/2"			Teflon PFA		
		7	IFS 4000	F	DN 50	/	2"			Teflon PFA		
		8	IFS 4000	F	DN 65	/				Teflon PFA		
		A	IFS 4000	F	DN 80	/	3"			Teflon PFA		
		B	IFS 4000	F	DN 100	/	4"			Teflon PFA		
		C	IFS 4000	F	DN 125	/				Teflon PFA		
		D	IFS 4000	F	DN 150	/	6"			Teflon PFA		
Complete ordering code												

Ordering Guide

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

Page 05

IFC 010 K/F, IFC 020 K/F/E, IFC 090, IFC 110 F, IFC 210 E or SC 150 (> DN 50)

ALTOFLUX IFS 4000 / 4005

DC-field operation for liquids with conductivity > 5 (water > 20) $\mu\text{S}/\text{cm}$

DN 200 - DN 400 / 8" - 16"

Code Primary head									
V303	0	E	IFS 4000	F	DN 200	/	8"	PTFE	
		E	IFS 4000	F	DN 200	/	8"	Tefzel	(gasket of electrodes: Kalrez)
		E	IFS 4000	F	DN 200	/	8"	Hardrubber	only for Ex !
		F	IFS 4000	F	DN 250	/	10"	PTFE	
		F	IFS 4000	F	DN 250	/	10"	Tefzel	(gasket of electrodes: Kalrez)
		F	IFS 4000	F	DN 250	/	10"	Hardrubber	only for Ex !
		G	IFS 4000	F	DN 300	/	12"	PTFE	
		G	IFS 4000	F	DN 300	/	12"	Tefzel	(gasket of electrodes: Kalrez)
		G	IFS 4000	F	DN 300	/	12"	Hardrubber	only for Ex !
		H	IFS 4000	F	DN 350	/	14"	PTFE	
		H	IFS 4000	F	DN 350	/	14"	Tefzel	(gasket of electrodes: Kalrez)
		H	IFS 4000	F	DN 350	/	14"	Hardrubber	only for Ex !
		K	IFS 4000	F	DN 400	/	16"	PTFE	
		K	IFS 4000	F	DN 400	/	16"	Tefzel	(gasket of electrodes: Kalrez)
		K	IFS 4000	F	DN 400	/	16"	Hardrubber	only for Ex !
Pressure rating (others on request)									
	2	PN 10	DIN 2501						
	A	ANSI 150 lb RF	DN ≥ 300 (12"): max. operating pressure 10 bar (higher on request)						
	M	JIS 20 K	max. operating pressure 10 bar (higher on request)						
	N	JIS 10 K	max. operating pressure 10 bar (higher on request)						
Protection category (Ex-protection only in connection to IFC 090 Ex, IFC 110 Ex or IFC 210 Ex)									
	1	IP 67			G	IP 67			
	2	IP 68	DS, 10 m		H	IP 68	DS, 10 m		
	3	IP 68	BTS, 10 m		K	IP 68	BTS, 10 m		
	4	IP 67	EEx zone 1	≤ DN 300	L	IP 67	EEx zone 1	≤ DN 300	
	4	IP 67	EEx zone 1	≥ DN 350	L	IP 67	EEx zone 1	≥ DN 350	
	5	IP 67	Ex nA zone 2		M	IP 67	Ex nA zone 2		
	6	IP 68	Ex nA zone 2		N	IP 68	Ex nA zone 2		
	7	IP 67	SEV EEx (Swiss)		V	IP 67	SEV EEx	≤ DN 300	252 128,85 ≥ DN 350
	8	IP 68	DS/LIYCY, 10 m		P	IP 68	DS/LIYCY, 10 m		
	A	IP 67	A Ex / Div 1 (USA)		R	IP 67	A Ex / Div 1 (USA)		
	B	IP 67	A Ex / Div 2 (USA)		S	IP 67	A Ex / Div 2 (USA)		
	C	IP 67	J Ex (Japan)		T	IP 67	J Ex (Japan)	≤ DN 300	252 128,85 ≥ DN 350
	D	IP 67	C/GP (CSA / Canada)		U	IP 67	C/GP (CSA / Canada)		
Version / Signal converter									
	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)						
Language Operating manual									
	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
	E	D	F	GB	G	US	H	F	PF 1/2
									modular/compact
Liner (Option)									
	1	PTFE							
	2	provided for protection rings	(PTFE)						
	3	PFA							
	5	Hardrubber							
	A	Softrubber							
	D	Iratane (PU)							
	G	FEP							
	K	Tefzel	gasket of electrodes Viton (DN 200 - DN 600 / 8" - 24")						
Electrodes others see price list 12									
	3	Hastelloy C (standard)							
	4	Hastelloy B							
	5	Tantalum							
	6	Titanium							
	7	Platinum (wetted parts)							
Mounting of electrodes									
	1	fixed							
	6	WE	Stainless Steel 316 Ti		DN > 350 / 14"				
Material of flange									
	1	Steel St 37-C22 / A 105							
	2	st. Steel 1.4306 (304 L)	4 st. Steel 1.4571 316 Ti) DIN only						
	3	st. Steel 1.4404 (316 L)							
Primary constant									
	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)						
Complete ordering code									

Ordering Guide

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

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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 !
		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 !
		P	IFS 4000	F	DN 700	/	28"	FEP, glued	
		P	IFS 4000	F	DN 700	/	28"	Hardrubber	only for Ex !
		R	IFS 4000	F	DN 800	/	32"	FEP, glued	
		R	IFS 4000	F	DN 800	/	32"	Hardrubber	only for Ex !
		S	IFS 4000	F	DN 900	/	36"	FEP, glued	
		S	IFS 4000	F	DN 900	/	36"	Hardrubber	only for Ex !
		T	IFS 4000	F	DN 1000	/	40"	FEP, glued	
		T	IFS 4000	F	DN 1000	/	40"	Hardrubber	only for Ex !

Pressure rating (others on request)

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)	

Protection category ***

	DEM	EUR	
### ###	0	0,00	### ##### SEV EEx (Swiss)
### ###	719	367,62	### ##### DS/LIYCY, 10 m
### ###	785	401,36	### ##### A Ex / Div 1 (USA)
### ###	1.487	760,29	### ##### A Ex / Div 2 (USA)
### ###	80	40,90	### ##### J Ex (Japan)
### ###	799	408,52	### ##### C/GP (CSA / Canada)

Version / Signal converter

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)

Language Operating manual

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

Cable connection

PG 13,5
1/2" NPT
PF 1/2
modular/compact

Liner (Option)

1	PTFE	(≤ DN 600)
2	provided for protection rings (PTFE)	
5	Hardrubber	
A	Softtrubber	
D	Irrathane (PU)	
G	FEP	(≥ DN 700 / > 28")
K	Tefzel	gasket of electrodes: Viton (DN 500 - DN 600 / 20" - 24")

Electrodes

3	Hastelloy C (standard)
4	Hastelloy B
5	Tantalum
6	Titanium
7	Platinum (wetted parts)

others

see price list 12

Mounting of electrodes

1	fixed
6	WE Stainless Steel 316 Ti

Material of flange

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

Primary constant

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) $\mu\text{S}/\text{cm}$

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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
Pressure rating									
		1	PN 6	DIN 2501 smooth packing strip			(DN 1200 - DN 2000)		
		A	ANSI	150 lb RF			(48" - 120")		
Protection category (Ex-protection only in connection to IFC 090 F/Ex or IFC 110 F/Ex)									
		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	DS/LIYCY, 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/GP (CSA / Canada)					
Version / Signal converter									
		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)					
Language Operating manual									
		1	D	2	GB	3	US	4	F
		5	D	6	GB	7	US	8	F
		A	D	B	GB	C	US	D	F
Cable connection									
									PG 13,5
									1/2" NPT
									PF 1/2
Liner (Option)									
		2	provided for protection rings						
		A	Soft rubber						
		D	Iratane (PU)						
		G	FEP						
Electrodes									
		3	Hastelloy C (standard)						
		4	Hastelloy B						
		5	Tantalum						
		6	Titanium						
		7	Platinum (wetted parts)						
			others see price list page 12						
Mounting of electrodes									
		1	fixed						
		6	WE	Stainless Steel 316 Ti		(standard)			
Material of flange									
		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						
Primary constant									
		0	standard		(incl. converter)				
		6	GK + GKH		(for IFC 020, 090, 110, 210, SC 150)				
V303									Complete ordering code

[illegible]

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AQUAFLUX

DN 10 - DN 150 / 3/8" - 6"

V323								1			Complete ordering code
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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) $\mu\text{S}/\text{cm}$

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AQUAFLUX

DN 25 - DN 150 / 1" - 6"

Code Primary head									
V325	0	4	Aquaflux	F	DN 25	/	1"		Polypropylene (PP)
		5	Aquaflux	F	DN 32				Polypropylene (PP)
		6	Aquaflux	F	DN 40	/	1 1/2"		Polypropylene (PP)
		7	Aquaflux	F	DN 50	/	2"		Polypropylene (PP)
		8	Aquaflux	F	DN 65				Polypropylene (PP)
		A	Aquaflux	F	DN 80	/	3"		Polypropylene (PP)
		B	Aquaflux	F	DN 100	/	4"		Polypropylene (PP)
		C	Aquaflux	F	DN 125				Polypropylene (PP)
		D	Aquaflux	F	DN 150	/	6"		Polypropylene (PP)
Pressure rating									
		3	PN 16		DIN 2501	(DN 65, DN 100 - DN 150)			
		5	PN 40		DIN 2501	(DN 25 - DN 80 <i>without</i> DN 65)			
		A	ANSI 150 lb RF						
		M	JIS 20 K		(DN 25 - DN 50)				
		N	JIS 10 K		(DN 65 - DN 150) <i>others on request</i>				
Protection category									
		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				
		K	IP 68		BTS, 10 m				
		M	IP 67		Ex nA zone 2				
		N	IP 68		Ex nA zone 2				
		P	IP 68		DS/LIYCY, 10 m				
Version / Signal converter									
		1	Aquaflux F (<i>without</i> converter)						
		4	Aquaflux		(modular) <i>separate version without</i> 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)				
Language Operating manual									
		1	D		2	GB		3	US
		5	D		6	GB		7	US
		A	D		B	GB		C	US
		E	D		F	GB		G	US
								4	F
								8	F
								D	F
									PF 1/2
									modular/compact
Cable connection									
									PG 13,5
									1/2" NPT
									PF 1/2
									modular/compact
Liner (Option)									
		0	standard (DN 25 - DN 150: Polypropylene)						
		S	provided for protection rings						
Electrodes									
		1	Stainless Steel 316 Ti						
		3	Hastelloy C (standard)						
		6	Titanium						
Mounting of electrodes									
		1	fixed						
Material of flange									
		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						
Primary constant									
		0	standard (incl. converter)						
		5	GK + GKL (for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)						
V325								1	
Complete ordering code									

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

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AQUAFLUX

DN 200 - DN 400 / 8" - 16"

Code Primary head

V323	0	E	Aquaflux	F	DN 200	/	8"	Hardrubber
		F	Aquaflux	F	DN 250	/	10"	Hardrubber
		G	Aquaflux	F	DN 300	/	12"	Hardrubber
		H	Aquaflux	F	DN 350	/	14"	Hardrubber
		K	Aquaflux	F	DN 400	/	16"	Hardrubber
Pressure rating								
	2	PN 10	DIN 2501					
	A	ANSI 150	lb RF	DN > 300 (12"): max. operating pressure 10 bar (higher on request)				
	M	JIS 20 K	max. operating pressure 10 bar (higher on request)					
	N	JIS 10 K	max. operating pressure 10 bar (higher on request) <i>others on request</i>					
Protection category								
	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					
	K	IP 68	BTS, 10 m					
	M	IP 67	Ex nA zone 2					
	N	IP 68	Ex nA zone 2					
	P	IP 68	DS/LIYCY, 10 m					
Version / Signal converter								
	1	Aquaflux	F	(without converter)				
	4	Aquaflux		(modular) separate version <i>without</i> 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)				
Language Operating manual								
	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
Cable connection								
								PG 13,5
								1/2" NPT
								PF 1/2
								modular/compact
Liner (Option)								
	0	Hardrubber (standard)						
Electrodes								
	1	Stainless Steel 316 ti						
	3	Hastelloy C (standard)						
	6	Titanium						
Mounting of electrodes								
	1	fixed						
	6	WE Stainless Steel 316 Ti (> DN 350)						
Material of flange								
	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						
Primary constant								
	0	standard (incl. converter)						
	5	GK + GKL (for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)						
V323	0							
Complete ordering code								Total price

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) $\mu\text{S}/\text{cm}$

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AQUAFLUX

DN 500 - DN 1000 / 20" - 40"

[illegible]

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)

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

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AQUAFLUX

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	
Pressure rating									
		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)		
Protection category									
		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					
Version / Signal converter									
		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 080 K	(for IFC 090 K)		≤ DN 1600			
		B	Aquaflux 080 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	(für IFC 210 E)		≤ DN 1600			
Language Operating manual									
		1	D	2	GB	3	US	4	F
		5	D	6	GB	7	US	8	F
		A	D	B	GB	C	US	D	F
Cable connection									
									PG 13,5
									1/2" NPT
									PF 1/2
Liner (Option)									
		0	Hardrubber (standard)						
Electrodes									
		1	st. Steel 316 ti						
		3	Hastelloy C (standard)						
		6	Titanium						
Mounting of electrodes									
		1	fixed						
		6	WE	st. Steel 316 ti					
Material of flange									
		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						
Primary constant									
		0	standard			≤ DN 1600: IFC 110, 210, 090, 020 / > DN 1600: SC 150)			
		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	Wolframcarbide	basis	Stainless Steel 316 Ti	
Mounting of electrodes				
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 Hastelloy 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			
Complete ordering code				

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

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PROFIFLUX IFS 5000

CAPAFLUX IFM 5080 K / CAP

IFM 5080 K / CAP for liquids $> 0,05$ (Water > 1) $\mu\text{S}/\text{cm}$, sandwich design

[illegible]

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											
VN39	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		
Pressure rating											
		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								
Protection category											
		2	IP 67								
		3	IP 67	3A approval	in preparation						
Version / Signal converter											
		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								
Language operating manual											
		0	without								
		1	german								
		2	english GB								
Mounting material											
		0	without								
		1	Steel								
		2	st. Steel A2								
		3	Rubber sleeves								
Integrated earthing rings / Gaskets											
		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")						
Option for ventilation											
		0	standard								
		1	threaded connection G 1/8								
Threaded holes											
		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											
VN39											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									
VN 37	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
Power supply									
		4	24	V	DC				
Electrical connector M12 x 1									
		1	standard						
Option									
		0	Standard						
		5	reverse flow compensation						
Operation manual / Operating language									
		1	German			/ German			
		2	English GB			/ English GB			
		3	English US			/ English US			
		4	French			/ French			
VN37	0								Complete ordering code

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

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)

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

Earth 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	
Hastelloy C4 / Gylon	1306615900	1306616000	1306615100	1306615200	1306615300	
1.4571 (ss 316 Ti) / Chemotherm	1306617900	1306618500	1306616900	1306617000	1306617100	* Please pay attention to a different mounting length when using earthing rings made of Tantalum 0,5 mm
Hastelloy C4 / Chemotherm	1306616100	1306616200	1306616300	1306616400	1306616500	
* Tantalum / PTFE Form PF29	1306617800	1306618400	1306618200	1306618600	1306619300	

Ordering Guide

Magnetic-inductive primary head IFC 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

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"

Connection / Pressure rating

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

aseptical connections see price list 16

(gasket EPDM)

Connection box

0

without

(modular)

2

IP 67

connection box Alu

3

IP 67

connection box st. Steel 1.4301 (304)

(PG 13,5)

Version / Signal converter

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)

Language / Operating manual

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

E

D

F

GB

G

US

H

F

PF 1/2

modular/compact

Approval

(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

Integrated eathing rings / Gaskets

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")

Material of electrodes

1

Stainless Steel 316 Ti

3

Hastelloy C

4

Hastelloy B2

5

Tantalum

6

Titanium

7

Platinum (wetted parts)

(DN 2,5 - DN 80 / 1/10" - 3")

Primary constant

0

standard

(incl. converter)

5

GK + GKL

(for IFC 010, IFC 020, IFC 090, IFC 110, IFC 210)

Complete ordering code

V321

Primary head IFS 6000 VARIFLUX

Page 16
IFS 6000 VARIFLUX
Connection overview

Code	Connection	DN 2,5 - 15 1/10-1/2"	DN 25 1"	DN 40 1 1/2"	DN 50 2"	DN 65 2 1/2"	DN 80 3"
H	sanitary connection DIN 11851						
K	SMS 1145 (from DN 25 / 1")						
L	CLAMP ISO 2852						
X	screw connection ISO 2853						
S	aseptical thread with butt weld ends acc. DIN 11 850						
T	aseptical thread with butt weld ends acc. ISO 2037						

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
Power supply			
		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
Cable connection			
		2	PG 13.5 (2x)
		3	1/2" NPT
		4	PF 1/2
		A	PG 13.5 (3x) Swiss
Option			
		0	standard (none)
		1	LA S2/S
		2	LA S3/S
		3	LA S4/S
		A	frequency output 10 kHz
Operation manual / Operating language			
		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 / Aquaflux 4000 (≤ DN 1600) / 5000 / 6000 (DC-field operation)

Page 18
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
Power supply					
		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)
Cable connection					
		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)	
Special version					
		0	standard	(none)	
		1	LA S2/S		
Operating manual / Operating language					
		1	german	/	german
		2	english GB	/	english GB
		3	english US	/	english US
		4	french	/	french
Mounting					
		1	version 1 compact / separate / 19 "		
		2	version 2 compact		
		3	version 3 compact		
		4	version 4 compact		
			! no parallel operation of HART and RS 485 !		
V312					complete ordering code

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 /
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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
Power supply	
	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
Ex-version	
	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
Cable connection	
	2 2 x PG 13,5
	3 2 x 1/2" NPT
	4 2 x PF 1/2"
Operating manual / Operating language	
	1 german / german
	2 english GB / english GB
	3 english US / english US
	4 french / french
Mounting position	
	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)
Special version	
	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-EE 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	I FC 090 i-Ex	K D	(plus output modules, pls. see below)	
		H	I FC 090 i-Ex	F D	(plus output modules, pls. see below)	
		P	I FC 090 i-Ex	K CAP D	(plus output modules, pls. see below)	
Power supply						
		4	24 V AC / DC			
		D	100 - 230 V AC			
Ex-version						
		0	without (Non EEx)			
		1	EEx terminal compartment "e"	5080 Ki-EEx		
		2	EEx terminal compartment "d"	5080 Ki-EEx		
		4	EEx terminal compartment "e"	4080 Ki-EEx		
		5	EEx terminal compartment "d"	4080 Ki-EEx		
		7	EEx terminal compartment "e"	6080 Ki-EEx		
		8	EEx terminal compartment "d"	6080 Ki-EEx		
		G	I FC 090 F/i - EEx (terminal compartment "e")	Only IFC 090 i-EEx F / D		
Ex-i output						
		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)			
Operating manual					Cable connection	
		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
Mounting position						
		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)			
Special version						
		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-Ex

Page 20
IFC 090 i - non EEx

Version only for non-EEs									
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)				
Power supply									
	4	24	V	AC / DC					
	D	100 - 230	V	AC					
Ex-version									
	0	without (Non EEx)							
Ex-I output									
	B	i 2	mA (passive) + HART / Profibus PA (HART and Profibus only alternatively)						
	D	i 4	binary input/output (passive) + Profibus PA						
Operating manual									
	1	G	2	GB	3	US	4	F	Cable connection
	5	G	6	GB	7	US	8	F	PG 13,5
	A	G	B	GB	C	US	D	F	1/2" NPT
									PF 1/2
Mounting position									
	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)					
Special version									
	0	standard	(none)						
	1	LA S2/S							
	2	LA S3/S							
	3	LA S4/S							
Complete ordering code									

Ordering Guide

Signal converter IFC 110 F for connection to primary head

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IFS 1000 / 2000 / 4000 / 5000 / 6000 (DC-field operation)

IFC 110 F / IFC 110 PF

Signal converter IFC 110 PF

for connection to primary head TIDALFLUX IFS 4000 PF

Code Signal converter									
V302	0	A	IFC 110 F	D					
		B	IFC 110 F	D		HART RS 485			
		H	IFC 110 F	D MP					
		K	IFC 110 F	D MP		HART RS 485			
		M	IFC 110 F	PF	(RS 485 to primary head)		TIDALFLUX		
		N	IFC 110 F	PF MP	(RS 485 to primary head)		TIDALFLUX		
Power supply									
	4	24	V	DC / AC		(TIDALFLUX only 24 V AC !)			
	D	100 - 230	V	AC		(TIDALFLUX see price list 23 !)			
Ex-version									
	0	none							
	1	EEx	zone 1		(not for DALFLUX !)				
Cable connection									
	1	5 x	PG 16		(3 x PG 16 + 1x PG 9		TIDALFLUX)		
	2	5 x	1/2" NPT		(3 x 1/2" NPT+ 1x PG 9		TIDALFLUX)		
	3	5 x	PF 1/2"		(3 x PF 1/2" + 1x PG 9		TIDALFLUX)		
Operating manual / Operating language									
	1	german	/	german					
	2	english GB	/	english GB					
	3	english US	/	english US					
	4	french	/	french					
Special version									
	0	none							
	1	LA S2/S							
	3	LA S4/S							
V302	4								
Complete ordering code									

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						
Power supply									
		D	100 - 240 V AC						
Ex-version									
		1	without						
Cable connection									
		1	5 x PG 13,5						
		2	5 x 1/2" NPT						
		3	5 x PF 1/2"						
Operating manual / Operating language									
		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

Abrasive,
corrosive and
hot products

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

Food,
Beverage,
Pharmaceutical

High Pressure
and special
connections

Signal converter
Compact
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To be used with signal converters IFC 110 PF only! DC-field operation for liquids with conductivity > 50 $\mu\text{S} / \text{cm}$

TIDALFLUX IFS 4000 PF

[illegible]

Ordering Guide

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

Page 24 + 25

ALTOFLUX IFS 4000 / AQUAFLUX

Earthing rings st. Steel 316 ti, 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	2308542600
	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

Abrasive,
corrosive and
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Non-contact
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K ≥ 0,05 µS/cm

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

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ALTOFLUX IFS 4000 / AQUAFLUX

Earthing rings st. Steel 316 tl, 3 mm

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

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
Vuito 3 x 1,5 mm²	(when IP 68)	5302890100
LIYCY	signal cable, grey, 3 x 1,5 mm ²	5062100800
LIYCY	5 x 0,75 mm ² (data cable Tidalflex SC 100 PF)	5315290200
LICYC	3 x 1,5 mm ² (data cable Tidalflex IFC 110 PF)	5315290300
LICYC	4 x 2,5 mm ² (DIV II cable)	5302890500
A & G USC (ultrasonic cleaning)		5302640100
Cable Silicone coated for high temperature operation of IFS 5000 F, IFS 5000 F and F Ex (only DN 2,5 - 15) > 150 °C		
	BIHFC redbrown, screened, signal cable	5071910000
	BIHTC blue, screened, signal cable (Ex)	5071920000
	SIHSI redbrown (unscreened)	5071930000
For cable length > 5 m we recommend an installation of an external connection Continuing cable DS or BTS as described before		
	external connection box standard	2059930100
	external connection box Ex	2059930000
Recommended mounting kit for IFS 5000 F:		
	1 x 5 m Silicone cable BIHFC, screened	
	1 x 5 m Silicone cable SIHSI, unscreened	
	1 x external connection box, standard	1312910500
Recommended mounting kit for IFS 5000 F / Ex:		
	1 x 5 m Silicone cable BIHFC, screened	
	1 x 5 m Silicone cable SIHSI, unscreened	
	1 x external connection box Ex	1312910600

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