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GR/PRINTO

ECOFLUX
Electromagnetic Flowmeter

...economical

...ecological

...standard setting

- Flangeless 'sandwich' design, easy and quick to install
- For accurate measurements, no waste
- High-grade KROHNE Teflon®-PFA liner and Hastelloy electrodes, maintenance-free

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Electromagnetic Flowmeter

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ECOFLUX flowmeters
measure the volumetric flowrate of electrically conductive liquids.

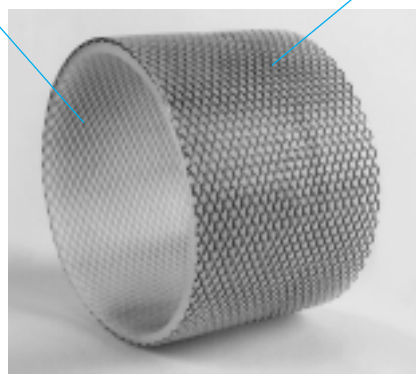
Fields of application

- agriculture:
  precise dosing of liquid fodder,
  liquid fertilizers,
  measurement of liquid manure,
  sprinkler irrigation systems
- fire-fighting vehicles, fire extinguishing systems:
  foam mixing, control of sprinkler systems
- machinery and apparatus construction:
  heat counters, energy allocation to buildings and workshops
- swimming pools and recreational facilities:
  water recirculation and treatment
- abrasion resistance:
  very good
- chemical resistance (limited by electrode material):
  alkaline solutions (e.g. NaOH) up to 70% at 20°C
  acids (e.g. HNO_3) up to 65% at 20°C

Calibrated on **EN 45 001**
certified calibration rigs,
accuracy of calibration better
than 99.97% of the measured value.

High-grade KROHNE Teflon®-PFA liner with stainless steel mesh reinforcement

Meter sizes DN 10-150 and ⅜"-6"



Economical: low investment and follow-on costs
Ecological: accurate measurements, no waste

Can be operated together with all KROHNE signal converters, as integral device (K) or remote system (F and E)

No additional flange gaskets required

Flangeless 'sandwich' design, easy and quick to install

ECOFLUX IFS 1000 Primary head

Meter sizes	DN 10 – 150 and $^3/_8$" – 6"	
Pipe flanges		
to DIN 2501 (= BS 4504)	DN15 – 150 / PN16	
to ANSI B 16.5	$^1/_2$" – 6" / 150 lb / RF	
to JIS	DN10 - 150 / 10k and 20k	
Electrical conductivity	≥ 20 µS/cm	
Temperatures	Ambient temperature	Process temperature
Compact systems	-25 to +**50** °C/-13 to +**122** °F	-25 to +60 °C/-13 to +140 °F
	-25 to +**40** °C/-13 to +**104** °F	-25 to +120 °C/-13 to +248 °F
IFS 1000 F (remote)	-25 to +**60** °C/-13 to +**140** °F	-25 to ≤ +120 °C/-13 to +248 °F
In storage	-25 to +**60** °C/-13 to +**140** °F	-
Operating pressure		
with pipe flanges		
to DIN 2501	≤ 16 bar/230 psig	
to ANSI B 16.5	≤ 16 bar/230 psig	
to JIS 10 K	≤ 10 bar/145 psig	
to JIS 20 K	≤ 16 bar/230 psig	
Vacuum load	0 mbar abs / 0 psia	
Insulation class of field coils	E	
Electrode design	pin electrodes	
Protection category (EN 60 529 / IEC 529)	IP 67, equivalent to NEMA 6	
Humidity rating to DIN 50 016, DIN / IEC 68	R, relative humidity < 90% annual mean	
Items included with supply	Standard	Option
Centering sleeves	yes (number dependent on meter size)	–
Stud bolts	no	yes
Grounding rings	DN 10 – 15	DN 25 – 150
	$^3/_8$" – $^1/_2$"	1" – 6"
Gaskets	no	no
Materials		
Measuring section	virgin Teflon®-PFA	
Electrodes	Hastelloy C4	
Housing (enamelled): DN 10 – 40 / $^3/_8$" – 1$^1/_2$"	malleable cast iron GTW S 38	
DN 50 – 150 / 2" – 6"	steel St 37.2, paint finish	
Grounding rings	stainless steel 1.4571/SS 316 Ti-AISI (option for DN 25 – 150 / 1" – 6")	
Centering material	rubber sleeves	
Stud bolts (option)	steel, electrogalvanized (as option stainless steel 1.4301/SS 304-AISI)	
Gaskets between measuring tube (or grounding rings) and pipe flanges	not included with flowmeter, use Teflon-type gaskets to DIN 2690 / ANSI B 16.21, deformable under pressure 8 – 16 N/mm² / 1160 – 2320 psi	

*Teflon® is a registered trademark of DuPont.

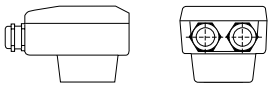
Dimensions and weights

PLEASE NOTE !

The **total dimension for the height** is obtained from **dimension b** (see table) **plus the height** of the terminal box or the signal converter, see drawings.

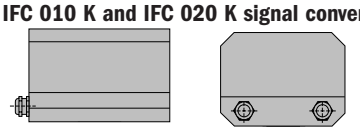
The **total weight** is made up of the weight of the signal converter (see table) **plus** the weight of the terminal box or signal converter, see below.

Terminal box



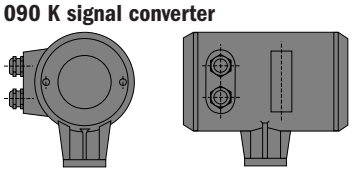
Weight approx. 0.5 kg (1.1 lb)

IFC 010 K and IFC 020 K signal converter



Weight approx. 1.6 kg (3.6 lb)

IFC 090 K signal converter



Weight approx. 2.3 kg (5.1 lb)

Meter size			Dimensions in mm (inches)										Approx. weight 1)	
DN	mm	inches	a		b	1)	c		d		e		in kg	(lb)
DN	10	3/8	68	(2.68)	137	(5.39)	52	(2.05)	67	(2.64)	47	(1.85)	1.7	(3.7)
DN	15	1/2	68	(2.68)	137	(5.39)	52	(2.05)	67	(2.64)	47	(1.85)	1.7	(3.7)
DN	25	1	54	(2.13)	147	(5.79)	52	(2.05)	62	(2.44)	66	(2.60)	1.7	(3.7)
DN	40	1 1/2	78	(3.07)	162	(6.38)	76	(2.99)	70	(2.76)	82	(3.23)	2.6	(5.7)
DN	50	2	100	(3.94)	151	(5.94)	98	(3.86)	50	(2.58)	101	(3.98)	4.2	(9.3)
DN	80	3	150	(5.91)	180	(7.09)	146	(5.75)	65	(3.15)	130	(5.12)	5.7	(12.6)
DN	100	4	200	(7.87)	207	(8.15)	196	(7.72)	78	(3.66)	156	(6.14)	10.5	(23.1)
DN	150	6	200	(7.87)	271	(10.67)	196	(7.72)	110	(4.90)	219	(8.62)	15.0	(33.1)

Necessary distance between flanges

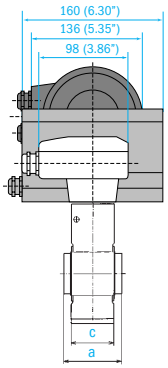
DN 10 – 15 / 3/8" – 1/2"	(flowmeter supplied with grounding rings)	Dimension a + 2 x gasket thickness **(2)**
DN 25 – 150 / 1" – 6"	without grounding rings:	Dimension a only (no gaskets required)
	with grounding rings:	Dimension a + 2 x gasket thickness **(2)** + 2 x 3 mm or 2 x 0.12" (thickness of grounding rings)

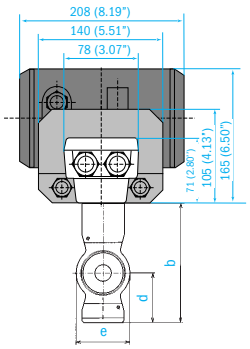
1) Overall height "b" and approx. weight without mounted terminal box or signal converter

2) Teflon-type gaskets to DIN 2690/ANSI B 16.21, deformable under pressure 8 – 16 N/mm² /1160 – 2320 psi, to be provided by customer.

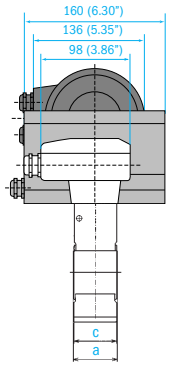
Dimensions in mm (inches)

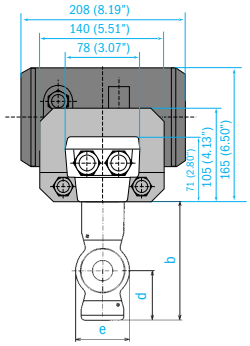
DN 10 – 15/ 3/8" – 1/2" **Dimension "a" with fitted grounding rings (standard)**





DN 25 – 40 / 1" – 1 1/2"





DN 50 – 150 / 2" – 6"