

ALTOFLUX IFS 2000 F / IFS 2005 F Electromagnetic Flowmeters

for exceptional operating conditions



- Rock-hard Al₂O₃ ceramic measuring tube
- Resistant to abrasion and vacuum
- The permanent solution for hydraulic handling operation

Variable area flowmeters

Vortex flowmeters

Flow controllers

Electromagnetic flowmeters

Ultrasonic flowmeters

Mass flowmeters

Level measuring instruments

Communications engineering

Engineering systems & solutions



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ALTOFLUX IFS 2000 / 2005

flowmeters measure the volumetric flowrate of electrically conductive liquids, acids, alkaline solutions, pastes and slurries, also with very high solids content.

Fields of application

- recovery of aluminium
- BTU measurement
- mining ore extraction
- measurement of water / sand mixes
- ... with solids contents of up to 50%
- paper and woodpulp production
- extremely high abrasion resistance
- chemical resistance:
alkaline solutions (e.g. NaOH) up to 50% at 50°C/122°F
acids (e.g. HNO₃) up to 99% at 90°C/194°F

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



Can be operated together with all separate KROHNE signal converters (F and E versions)

Stainless steel grounding rings, standard equipment

The lasting solution for hydraulic transport operations

Stainless steel electrodes

Hard-as-diamond Al₂O₃ measuring tube, resistant to most acids, alkalis and salts

Smooth inside tube wall, minimal pressure drop

Dimensionally stable measuring tube, very good thermal and long-term stability

Meter sizes DN 150-250 and 6"-10"

Technical data

Meter size	DN 150 – 250 and 6” – 10”
Connecting flanges ... to DIN 2501 (= BS 4504) ... to ANSI B 16.5	DN 150 / PN 16 DN 200 and 250, PN 10 6” – 10”, Class 150lb, FF
Electrical conductivity	≥ 5 µS/cm ≥ 20 µS/cm for demineralized water
Ambient temperature	-25 to +60°C or -13 to +140°F
Process temperature	-60 to +120°C or -76 to +248°F
Change of process temperature Temperature rising Temperature falling	ΔT ≤ 150°C or ≤ 302°F in 10 min (≤ 100°C or ≤ 212°F for sudden change) ΔT ≤ 80°C or ≤ 176°F in 10 min (≤ 60°C or ≤ 140°F for sudden change)
Max. operating pressure (at process temperature ≤ 120°C or ≤ 248°F) DN 150 DN 200 and 250 6” to 10”	≤ 16 bar or ≤ 230 psig ≤ 10 bar or ≤ 150 psig ≤ 10 bar or ≤ 150 psig
Vacuum load	0 mbar abs. or 0 psia
Insulation class of field coils	E
Electrode design	flat-elliptical, self-cleaning, surface-polished
Power supply for field coils IFS 2000 F IFS 2005 F	max. 60V from signal converter max. 250V from SC 150 F signal converter
Grounding rings	supplied with meter
Protection category (IEC 529 / EN 60 529)	IP 65 equivalent to NEMA 4 and 4X
Materials <u>Measuring section</u> <u>Electrodes</u> Standard Special <u>Electrode seals</u> Standard Special <u>Housing</u> <u>Terminal box</u> <u>Grounding rings</u> Standard Special <u>Gaskets between primary head and grounding rings</u> Standard Special <u>Connecting flanges</u>	fused aluminium oxide, 99.7% Al ₂ O ₃ stainless steel 1.4571 or SS 316 Ti-AISI Hastelloy C4, titanium, tantalum, platinum Viton Kalrez tubular steel or grey cast iron GG 20 with polyurethane finish diecast zinc with polyurethane finish stainless steel 1.4571 or SS 316 Ti-AISI Hastelloy C4 Viton O-rings Viton O-rings with PFA sheath cast steel (GS 45 N)

Background
Water Wastewater
Abrasive, corrosive and hot products
Non-contact measurement K > 0.05 µS/cm
Food, Beverage, Pharmaceutical
High Pressure and special connections
Integral and Remote
Signal converter
Remote
Calibration / Measuring Principle
Sizing / installation guides
Ordering guide

Dimensions and weights

Dimensions in mm and (inches)

Necessary distance between pipe flanges (dimensions a)

DN150 - 250 and 6" - 10": dimension a + 2 × thickness of gaskets between grounding ring and pipe flange.
 These gaskets not supplied with flowmeter, to be provided by customer.

Dimension a incl. grounding rings and gaskets between primary head and grounding rings

Flange Standard	Nominal size	Dimensions in mm (inches)					Approx. weight in kg (lb)
		a	b	c	d	e	
DIN 2501 (= BS 4504)	DN150/PN16	265 (10.43)	426 (16.77)	292 (11.50)	146 (5.75)	283 (11.14)	37 (82)
	DN200/PN10	315 (12.40)	467 (18.39)	324 (12.76)	171 (6.73)	342 (13.46)	53 (117)
	DN250/PN10	365 (14.37)	529 (20.83)	394 (15.51)	198 (7.80)	395 (15.55)	87 (192)
Ansi B16.5	6", 150lb, FF	265 (10.43)	432 (17.01)	292 (11.50)	152 (5.98)	283 (11.14)	37 (82)
	8", 150lb, FF	315 (12.40)	473 (18.62)	324 (12.76)	177 (6.97)	342 (13.46)	53 (117)
	10", 150lb, FF	365 (14.37)	535 (21.06)	394 (15.51)	204 (8.03)	407 (16.02)	87 (192)

IFS 2000 F / IFS 2005 F

DN150 - 250 / 6" - 10"

