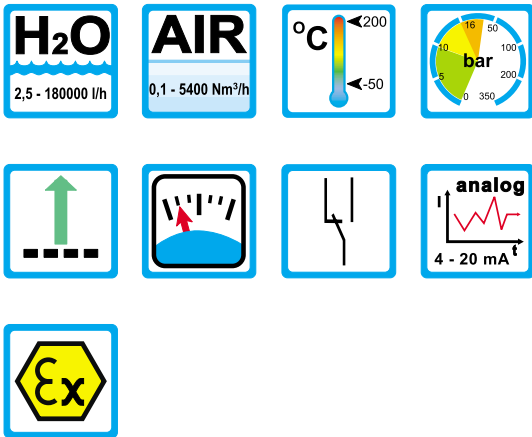


Flowmeter

SC-250



Range of Applications

Operation

- Float measuring principle

Application

- Watertreatment
- Chemical industry
- Food processing industry
- Pharma industry
- Cooling systems and cooling circuits

Features

- High reliability
- Product designated scale at no charge
- High chemical compatibility with Teflon-lining (optional)
- Flange connection special process connection on request

Installation hints

- The operating instructions for SC-250 must be observed!
- Download: www.meister-flow.com

Operating Data

Operating pressure max.: see table on page 2

Viscosity max.: 10 cP

Accuracy: standard: $\pm 2,5$ % of full scale
optional: $\pm 1,6$ % of full scale

Medium temperature: Stainless Steel - 50 °C to + 200 °C
PVC (fully) 0 °C to + 20 °C
PTFE (lined) - 20 °C to + 150 °C

Measuring Ranges

Measuring Ranges for H₂O at 20 °C: see table on page 4

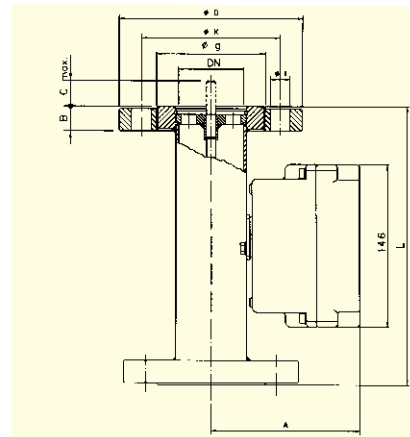
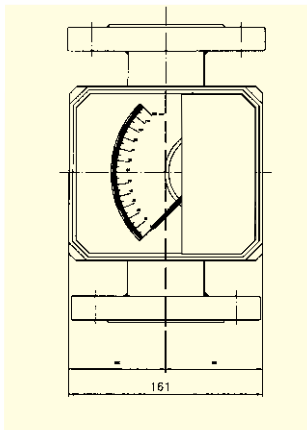
Measuring Ranges for Air at 1 bar abs. and 20 °C: see table on page 4

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Technical Data

Mechanical drawing



Dimensions and weights of the version according to DIN 2501

DN	D [mm]	K [mm]	g [mm]	l	B [mm]	DN	PN*	A [mm]	C [mm]	L [mm]	Weight [kg]
15	95	65	45	14x4	14	15	40	133	45	250	3,5
25	115	85	68	14x4	16	25	40	146	45	250	4,5
40	150	110	88	18x4	16	40	40	154	45	250	7,3
50	165	125	102	18x4	18	50	40	167	45	250	8,3
65	185	145	122	18x4	18	65	16	176	45	250	10
80	200	160	138	18x8	20	80	16	192	45	250	12
100	220	180	158	18x8	20	100	16	211	–	250	15
125	250	210	188	18x8	22	125	16	236	–	250	20
150	285	240	212	23x8	22	150	16	262	–	300	32

* Stainless Steel (1.4404)

Technical Data

Medium temperature:

Stainless Steel	-50 °C to +200 °C
PVC (fully)	0 °C to +50 °C
PTFE (lined)	-20 °C to +150 °C

Pressure (1.4404): see table above

Operating pressure PVC- and PP-version:

DN-15 to DN-50	PN16
DN-65 to DN-150	PN10

Operating pressure PTFE-version:

DN-15 to DN-40	PN40
DN-50 to DN-125	PN16
DN-150	PN10

Connection (standard): Flanges according to DIN 2501
 on request ANSI-, ASA-, BTS-flanges thread connection, sanitary connection to DIN 11851

Scale: Medium customised, 120 mm, various units
 e.g.: l/h, m³/h, kg/h

Accuracy:

standard	± 2,5 % of full scale
optional	± 1,6 % of full scale

Ambient temperature:

Stainless steel (1.4404)	-20 °C to +80 °C
PVC	0 °C to +45 °C
PTFE	-20 °C to +80 °C

Viscosity max.: 10 cP

Special versions (on request):

High temperature version*	-180 °C to +400 °C
PP-version (fully)	0 °C to +80 °C

Cable entry: PG9-cable gland

Ingress protection: IP 65

Heating jacket: on request

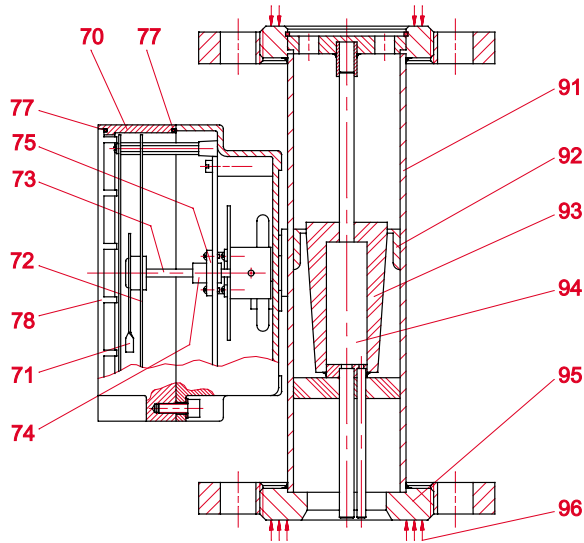
* only in Stainless Steel (1.4404)

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Materials and float types

Mechanical drawing



Materials measuring tube

No.	Description	Materials		
		S. Steel	PVC / PP	PTFE
91	Measuring tube	1.4404	PVC / PP	1.4404+PTFE
92	Orifice	1.4404	PVC / PP	PTFE
93	Float	1.4404	PVC / PP	PTFE
94	Magnet		Alnico	
95	Ring flange	Steel*	PVC / PP	1.4401
96	Flange - seal surface	1.4404	PVC / PP	1.4404+PTFE

* Stainless Steel on request

Materials indicator

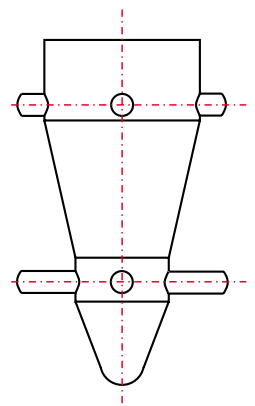
No.	Description	Materials
70	Housing	Aluminium (polyamide conted)
71	Pointer	Aluminium
72	Scale disc	Aluminium
73	Axle	Stainless Steel 1.4401
74	Ball bearing	Stainless Steel 1.4401
75	Magnet brake	Neodimium
77	Gasket	NBR
78	Window	Polycarbonate / glass

Float types

Type FC
DN-15 to DN-80



Typ FC
DN-100 to DN-150



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Measuring ranges

Standard ranges for Stainless Steel float

DN	Float No.	Float in 1.4404		
		H ₂ O [l/h]	Air *1 *2 [Nm ³ /h]	Pressure drop [mm H ₂ O]
15	15025	2,5– 25	0,07 – 0,7	400
	15040	4 – 40	0,12 – 1,2	400
	15060	6 – 60	0,18 – 1,8	400
	15100	10 – 100	0,3 – 3	400
	15160	16 – 160	0,5 – 5	500
	15250	25 – 250	0,7 – 7,5	500
	15400	40 – 400	1,2 – 12	500
	15600	60 – 600	1,8 – 18	500
25	25100	100 – 1000	3 – 30	600
	25160	160 – 1600	5 – 50	700
	25250	250 – 2500	7 – 75	900
	25400	400 – 4000	12 – 120	1100
	25101	–	–	–
	25161	–	–	–
	25251	–	–	–
40	40400	400 – 4000	12 – 120	450
	40600	500 – 6300	15 – 180	550
	40800	800 – 8000	24 – 240	900

Standard ranges for PVC-float

DN	Float No.	Float in PVC *3	
		Air *1 [Nm ³ /h]	Pressure drop [mm H ₂ O]
15	15025	–	–
	15040	0,2 – 2	240
	15060	0,4 – 4	240
	15100	0,6 – 6	240
	15160	1 – 10	240
	15250	1,6 – 16	240
	15400	2 – 20	240
	15600	–	–
25	25100	0,6 – 6	180
	25160	1 – 10	180
	25250	1,6 – 16	180
	25400	2,5 – 25	180
	25101	4 – 40	180
	25161	6 – 60	180
	25251	9 – 96	180
40	40400	5 – 50	260
	40600	8 – 80	260
	40800	14 – 140	260

DN	Float No.	Float in 1.4404		
		H ₂ O [l/h]	Air *1 *2 [Nm ³ /h]	Pressure drop [mm H ₂ O]
50	50800	800 – 8000	24 – 240	700
	50100	1000 – 10000	30 – 300	900
	50150	1500 – 15000	45 – 450	1000
	50101	–	–	–
65	65150	1500 – 15000	45 – 450	700
	65200	2000 – 20000	60 – 600	1000
80	80020	2000 – 20000	60 – 600	800
	80025	2500 – 25000	75 – 750	1000
	80030	3000 – 30000	90 – 900	1200
100	81040	4000 – 40000	120 – 1200	1000
	81050	5000 – 50000	150 – 1500	1200
	81060	6000 – 60000	180 – 1800	1500
125	82080	8000 – 80000	240 – 2400	1200
	82100	10000 – 100000	300 – 3000	1500
	82120	12000 – 120000	360 – 3600	1800
150	83150	15000 – 150000	450 – 4500	2200
	83180	18000 – 180000	500 – 5400	2200

DN	Float No.	Float in PVC *3	
		Air *1 [Nm ³ /h]	Pressure drop [mm H ₂ O]
50	50800	9 – 90	220
	50100	15 – 150	220
	50150	20 – 200	220
	50101	35 – 350	220
65	65150	25 – 250	220
	65200	40 – 400	220
80	80020	40 – 400	230
	80025	60 – 600	230
	80030	–	–
100	81040	60 – 600	240
	81050	100 – 1000	240
	81060	–	–
125	82080	150 – 1500	280
	82100	200 – 2000	280
	82120	–	–
150	83150	250 – 2600	320
	83180	300 – 3200	320

*1 At 1,013 bar abs., 20 °C

*2 Damper is recommended (DN-15 to DN-80)

Measuring ranges for other media and operating conditions on request!

*1 At 1,013 bar abs., 20 °C

*3 Up to 40 °C, for higher temperatures a PTFE-float must be used.

Measuring ranges for other media and operating conditions on request!



Electronic limitswitches

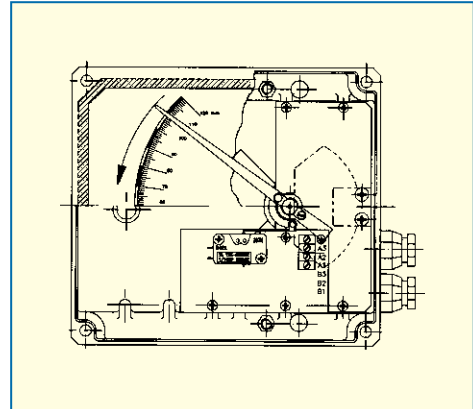
Adjustable micro-limitswitch type SC-AMM

Microswitch installed in the indicator housing of the flowmeter

- SC-AMM1: 1 adjustable limitswitch
- SC-AMM2: 2 adjustable limitswitches
- Switch values: 3 (1) A / 250 V (VDE/CEE)
- Hysteresis: $\pm 10\%$ of endvalue
- Ambient temperature: $-25\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$
- Mechanical lifetime: 10^7 switch operations

(Gold plated on request)

Mechanical drawing



Adjustable inductive limitswitch type SC-AMD

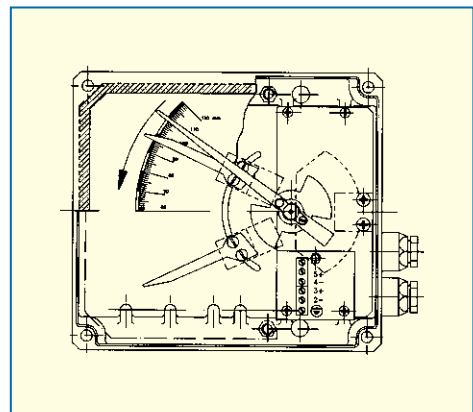
Inductive proximityswitch, 3,5 mm, according to NAMUR DIN 19234, installed in the indicator housing of the flowmeter

- SC-AMD1...2: 1...2 adjustable limitswitches
- Power supply: 8 V DC (via amplifier)
- Temperature: $-25\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$

Amplifier (on request)

Model NAMUR (DIN 19234) for 1 or 2 adjustable inductive switches

- Power supply: 24...230 V AC, 50 - 60 Hz
24...250 V DC
- Input: NUMAR EEx ia IIC
- Output: 1 or 2 relays
- Load: 2...5 A / 40 V DC
- Temperature: $-25\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$



SC-250.5 0003 09-09 E M



Electronic measuring transducers

HALLTEC IV

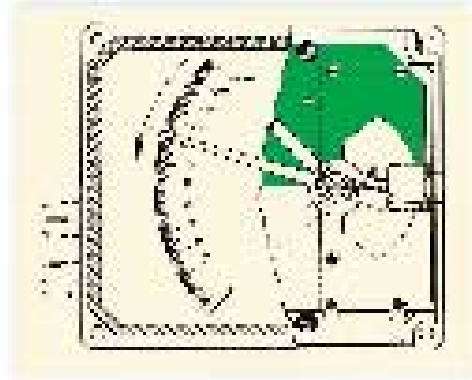
Mechanical drawing

The HALLTEC IV is a transducer in 2-wire technique with a hall effect sensor. The hall sensor is based on the non contact sensing through the indicator mechanism.

Model:

TH4	Transducer
TH4T	Transducer + Totalizer

- Power supply:	2-wire, 12...50 V DC
- max. current:	max. 20 mA
- Analog output:	4 - 20 mA
- Accuracy:	< 0,6 % referenced to the magnet position
- Load max.:	2 k Ω at 50 V DC
- Pulse output:	MOSFET potentialfree N-channel
- I max.:	200 mA
- max. frequency:	2 Hz
- Pulse length:	approx. 250 ms
- Totalizer:	9 - digits, 4,5 mm high, with reset via potentialfree contact
- Ambient temperature.:	-5 °C to +70 °C



HALLTEC III (EEx ia IIC T4 ATEX)

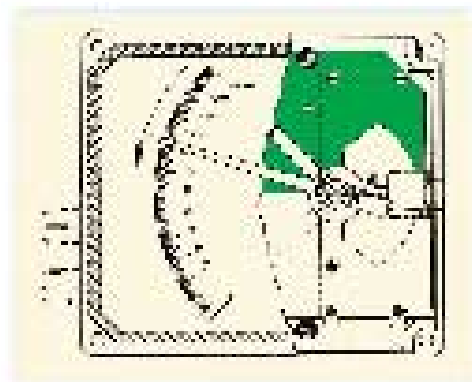
Mechanical drawing

The HALLTEC III is a transducer in 2-wire technique with a hall effect sensor. The hall sensor is based on the non contact sensing through the indicator mechanism.

Model:

TH32Ex	Transducer
TH32TEEx	Transducer + Totalizer

- Power supply:	2-wire, 10...24 V DC
- max. current:	20 mA
- Analog output:	4 - 20 mA
- Accuracy:	< 0,6 % referenced to the magnet position
- Load max.:	700 Ω at 24 V DC power supply
- Totalizer:	9 digits, 4,5 mm high, with reset via potentialfree contact
- Ambient temperature:	-5 °C to +40 °C



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