

Flowmeter

DP-65



Operation

The instruments, type DP-65, are target-disc flowmeters

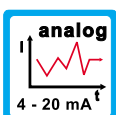
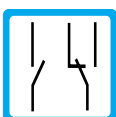
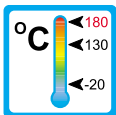


Application

The flowmeters, type DP-65, are employed to monitor the volume flow of liquids.

The instruments are used in many different applications:

- water treatment
- chemical industry
- heating circuits
- pharmaceutical industry
- fire protection installations



Features

The DP-65 prove themselves through reliability and simple handling. Further properties of this sturdy series are:

- suitable for high temperature applications
- product designated scale at no charge
- sandwich mounting

Installation hints

The flowmeter can be installed in any position in the system. The flow direction must be observed (refer to page 3).

The flowmeter must not be used as a supporting part in a pipe construction!

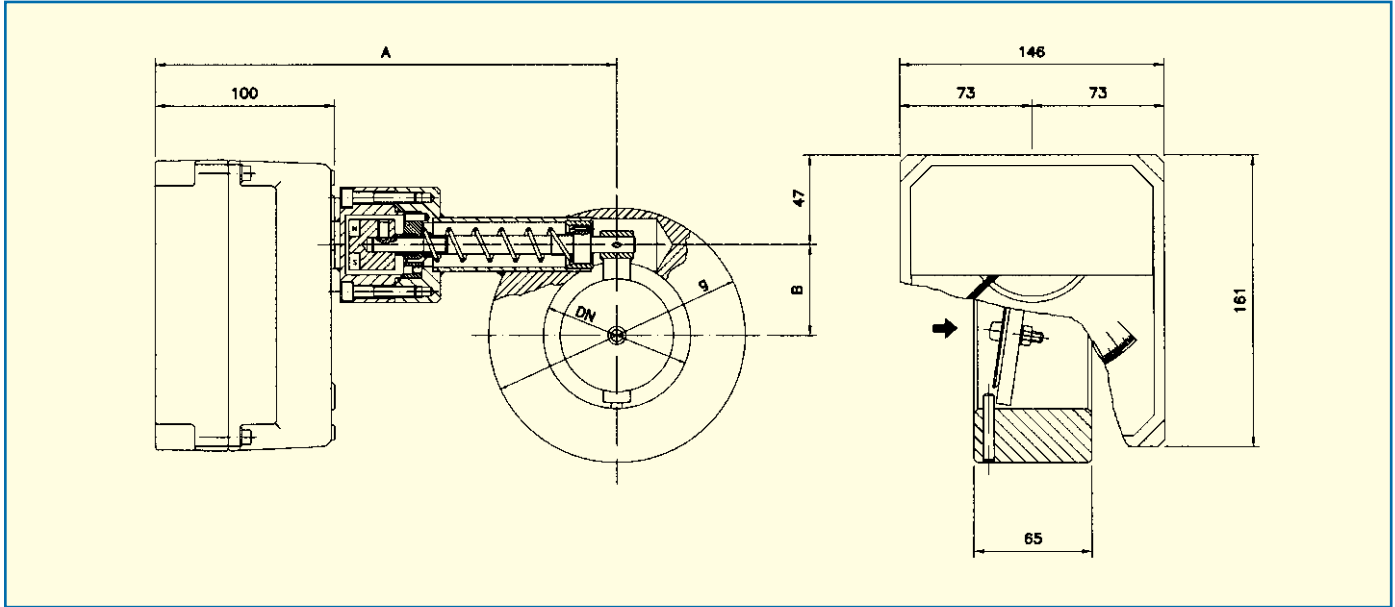
Keep adequate distance to magnetic fields (e.g. electric-motors)!

The operating instruction for DP-65 must be observed!

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Technical Data



Flow ranges, dimensions and weights

DN	Flow ranges (water at 20 °C)				g	Dimensions		Weight [kg]
	[m³/h]	[m³/h]	[m³/h]	[m³/h]		B	A	
40	0,8 - 4 / 6	1 - 8	2 - 10	3 - 16	88	28	250	5
50	0,8 - 6	2 - 10	3 - 16	3 - 25	102	33	250	6
65	2 - 10	3 - 16	3 - 25	4 - 30	122	40	250	7
80	2 - 16	3 - 25	5 - 40	10 - 60	138	50	250	8
100	5 - 40	8 - 60	10 - 80	12 - 90	158	60	250	10
125	8 - 60	15 - 100	15 - 120	20 - 135	188	70	280	12
150	15 - 100	20 - 160	25 - 200	40 - 220	212	78	280	14
200	20 - 160	30 - 250	40 - 350	—	268	90	320	20
250	25 - 200	50 - 400	60 - 500	80 - 600	320	102	350	29
300	30 - 250	50 - 400	80 - 600	100 - 800	370	115	370	35

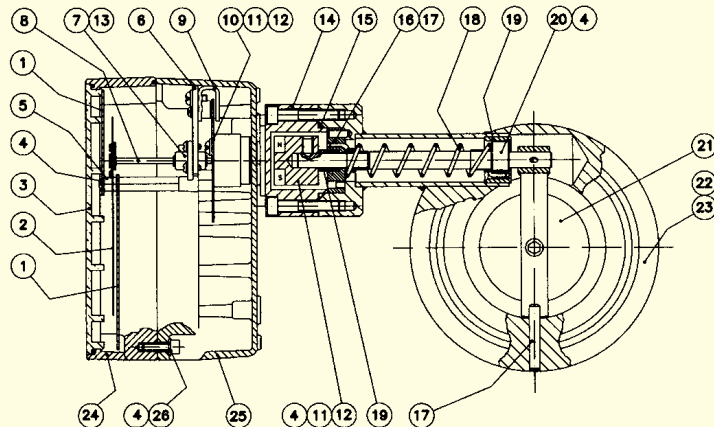
Technical data

Measuring ranges:		Accuracy:	
Water	refer to table above	standard	± 2,5 % of full scale
		optional	± 1,6 % of full scale
Medium temperature:		Ambient temperature:	
Steel coated (beschichtet)	-20 °C to +130 °C	Steel (coated)	-20 °C to +80 °C
Stainless Steel	-20 °C to +180 °C	Stainless Steel	-20 °C to +80 °C
Pressure:		Viscosity max.:	
DN-40 to DN-80	PN40	DN-100 to DN-200	PN16
DN-250 to DN-300	PN10		
Pressure drop	low pressure drop		
Connection (standard):	sandwich mounting		
Scale:	medium customised, 120 mm, various units e.g.: l/h, m³/h, kg/h		
Special versions (on request):			
High temperature version	-20 °C to +250 °C (in Stainless Steel only)		
Ingress protection housing:	IP 65	Cable entry:	PG9-cable gland

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Materials, flow directions

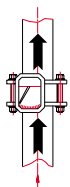


Materials

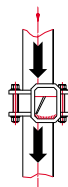
No.	Description	Steel	Stainless Steel	No.	Description	Steel	Stainless Steel
1	Scale	Aluminum	Aluminum	14	Cocking bolt	1.4404	1.4404
2	Pointer	Aluminum	Aluminum	15	Gasket	NBR	NBR
3	Show glass	Polycarbonate	Polycarbonate	16	Spring pad	1.4404	1.4404
4	Screw	1.4401	1.4401	17	Pin	1.4404	1.4404
5	Scale carrier (2-parts)	Brass chrome plated	Brass chrome plated	18	Spring	1.4310 NS	1.4310 NS
6	Linkage	Aluminum	Aluminum	19	Bushing	PTFE	PTFE
7	Bearing	Brass chrome plated	Brass chrome plated	20	Axle	1.4404	1.4404
8	Axle	1.4404	1.4404	21	Target disc	1.4404	1.4404
9	Magnet	Alnico	Alnico	22	Armature	Steel	1.4401
10	Brake disc	Aluminum	Aluminum	23	Lining	Polyamid 11	—
11	Magnet seat	Aluminum	Aluminum	24	Cover	Aluminum	Aluminum
12	Magnet	Alnico	Alnico	25	Housing	Aluminum	Aluminum
13	Bearing	1.4037	1.4037	26	Washer	Akulon	Akulon

wetted parts

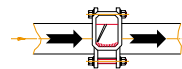
Flow directions



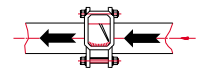
from bottom to top



from top to bottom



from left to right



from right to left

Please advise flow direction when ordering !



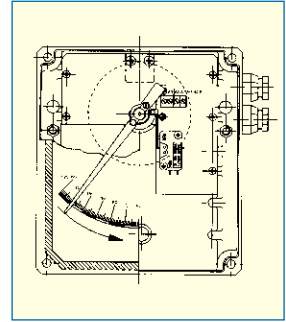
Electronic measuring transducers and limitswitches

Adjustable micro-limitswitch type DP-AMM

Bistable microswitch (change over) installed in the indicator housing of the flowmeter

- DP-AMM1: 1 adjustable limitswitch
- DP-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
- Supply: 220 V AC, load: 6 A 24 V DC, load: 0,5 A

(gold plated on request)



Adjustable inductive limitswitch type DP-AMD

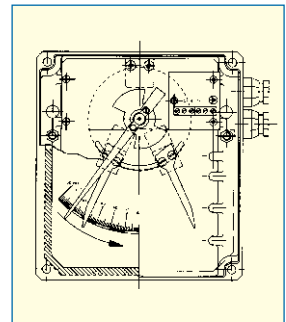
Inductive proximity switch, 3,5 mm, according to standard NAMUR DIN 19234, installed in the indicator housing of the flowmeter

- DP-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 contacts

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



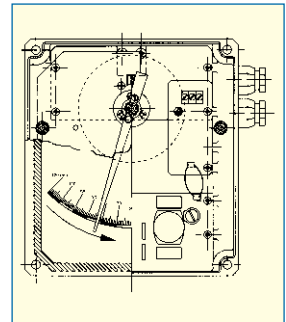
Electronic measuring transducer HALLTEC III

The HALLTEC III is a transducer in 2 wire or 4 wire technique with a hall effect sensor. The hall sensor is based on the non contact sensing through the indicator mechanism.

Model:

2 wire:	4 wire:
TH32 transducer	TH34 transducer
TH32T transducer + totalizer	TH34T transducer + totalizer

- Power supply: 10...50 V DC (2 wire), 24...240 V AC (4 wire)
- max. current / load consumption: max. 20 mA (2 wire), < 2 VA (4 wire)
- Analog output: 4 - 20 mA
- Accuracy: 0,6 % referenced to the magnet position
- Load max.: 2 k Ω
- 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 peak with reset via potentialfree contact
- Ambient temperature: $-25\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$

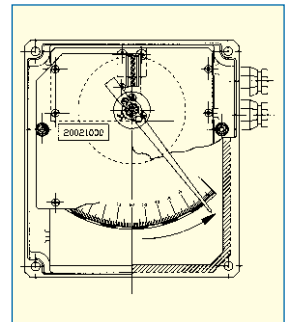


Electronic measuring transducer HALLTEC III (EEx ia IIC T4 ATEX)

Model:

2 wire:
TH32Ex transducer
TH32TEx transducer + totalizer

- 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 peak with reset via potentialfree contact
- Ambient temperature: $-5\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$



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