

Flow Indicator for Solids

-Relay output

-Transistor output

-Current output

Function

The indicator of **DYNAguard-series** helps to monitor the mass flow in solid material handling applications such as pneumatic transport lines, feeders or gravity chutes in a wide range of mass flow from g/h to t/h.

Flow problems with transports or the delivery of powders, dust, pellets, or granulates can be detected early with this device. This helps to prevent serious difficulties that can occur due to clogged piping, material loss, or other technical problems with the system.

The meter detects *moving* electrical charges that are produced, for example, through friction with other objects such as the pipe wall and then naturally adhere to the solids surface solids, solid lining will not be detected.

The device is not applicable for solids which build up an electrical conducting layer on the sensor through friction or deposition.

Technical Data

material	connector head	stainl. steel 1.4305 (AISI 303)
	process coupling	stainl. steel 1.4571 (AISI 316Ti)
	isolation	polyamide (PA), 2mm
ambient cond.	temperature	-20°C...+70°C (-4°F...158°F)
	degree of protection	IP 67 (EN 60529)
	EMC	according to EN 61326-1
process cond.	temperature	max. 90°C (194°F)
	pressure	max. 40 bar (570 lbs)
output	DYNAguard K01/K03	relay: max. 48 V AC/DC, 1A high/low switchable
	DYNAguard K02	transistor: galvanically isolated max. 31 V DC, 15 mA
		high/low switchable
	DYNAguard K20/K25	4-20 mA, galvanically isolated
		load < 500 Ω
supply voltage	DYNAguard K01/K03	17...31 V DC, max. 60 mA
	DYNAguard K02	17...31 V DC, max. 60 mA
	DYNAguard K20	17...31 V DC, max. 90 mA
adjustment	sensitivity	1...180.000
	damping	0...10 s (K01/K02/K03)
		0...120 s (K20/K25)
	switchpoint	1...10 (K01/K02/K03)

CE

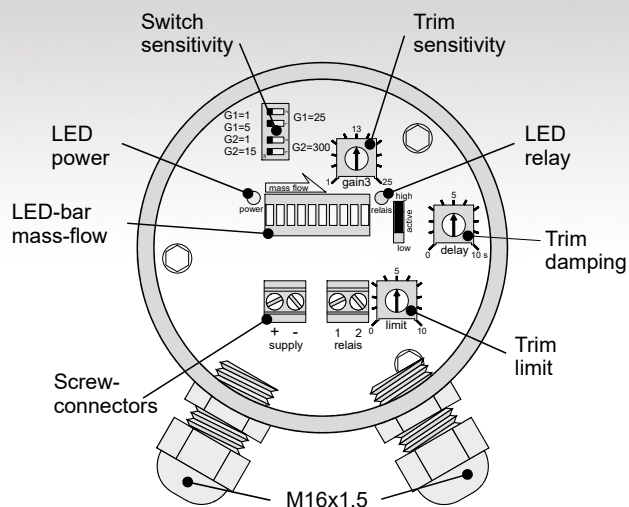


Characteristics

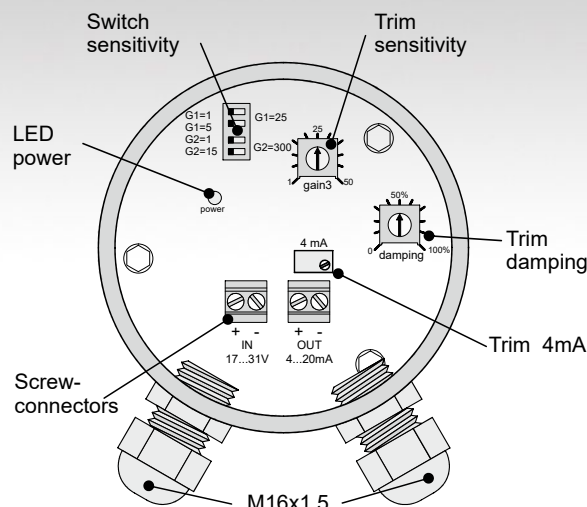
- non-contact / non-intrusive measurement
- compact construction
- simple installation between DIN- / ANSI - flanges
- measurement display with LED-bar conditions displayed by LED (relay / transistor output)
- stainless steel housing
- usable up to 40 bar (570 lbs)
- adjustable sensitivity
- adjustable switchpoint (limit switch)
- adjustable damping



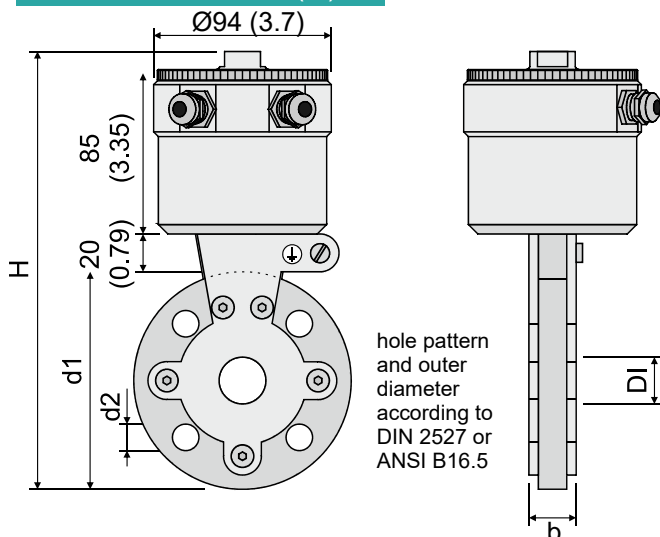
Switching output: DYNAguard K01 und K02



Analog output: DYNAguard K20 and K25



Dimensions in mm (in)



DIN-flange

nominal pressure (PN): 10, 16, 25, 40 bar

nom. size (DN)	H	b	standard diameter DI	
			row1	row2
10	205 (8.07)	20 (0.78)	10,4 (0.41)	13,6 (0.54)
15	210 (8.27)	20 (0.78)	16,0 (0.63)	17,3 (0.68)
20	220 (8.66)	20 (0.78)	20,4 (0.80)	22,3 (0.88)
25	230 (9.06)	25 (0.94)	24,8 (0.98)	28,5 (1.22)
32	255 (10.04)	25 (0.94)	32,8 (1.29)	37,2 (1.46)
40	265 (10.43)	25 (0.94)	39,3 (1.55)	43,1 (1.70)
50	280 (11.02)	25 (0.94)	51,2 (2.02)	54,5 (2.15)
65	300 (11.81)	25 (0.94)	70,3 (2.77)	-
80	315 (12.40)	25 (0.94)	82,5 (3.25)	-
100	335 (13.19)* 350 (13.78)**	30 (1.18)	100,8 (3.97)	107,1 (4.22)

*PN10/16 **PN25/40

ANSI-flange

nominal pressure (PN): 150, 300 lbs

nom. size (DN)	H 150 lbs	H 300lbs	b	standard diam. DI
1/2"	204 (8.03)	210 (8.27)	20 (0.87)	15,7 (0.622)
3/4"	214 (8.43)	232 (9.13)	20 (0.87)	20,8 (0.824)
1"	223 (8.78)	239 (9.41)	25 (0.94)	26,7 (1.049)
1 1/4"	232 (9.13)	248 (9.76)	25 (0.94)	35,1 (1.380)
1 1/2"	242 (9.53)	270 (10.63)	25 (0.94)	40,9 (1.610)
2"	267 (10.51)	280 (11.02)	25 (0.94)	52,6 (2.067)
2 1/2"	293 (11.54)	306 (12.05)	25 (0.94)	62,7 (2.469)
3"	306 (12.05)	325 (12.80)	25 (0.94)	78,0 (3.068)
3 1/2"	332 (13.07)	344 (13.54)	30 (1.18)	90,2 (3.548)
4"	345 (13.58)	369 (14.53)	30 (1.18)	102,4 (4.031)

all dimensions in mm(in)

technical data subject to change without notice

Ordering key

DYNAguard K a/b/c/d/e/f/g

a: Output

- 01: Relay
- 02: Transistor
- 03: Relay, sensitiv version
- 20: Analog output 4-20mA
- 25: Analog output 4-20mA, sensitiv version

b: Process coupling

- DF: DIN-flange
- AF: ANSI-flange

c: Flange nominal pressure PN

- 10,16,25,40: DIN-flange
- 150lbs, 300lbs: ANSI-flange

d: Flange nominal size DN

- 10...100: DIN-flange
- 1/2"...4": ANSI-flange

e: Inner diameter DI in mm

- 10,4...107,1: DIN-flange
- 15,7...90,2: ANSI-flange

f: Options

- D: Customer determined inner diameter DI
- g: Certificates
- non: Ex-free area
- Ex2: Version for use in ATEX-Zone 2 and/or 22



II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIC T100°C Dc IP65

Contact your national or area sales and service office