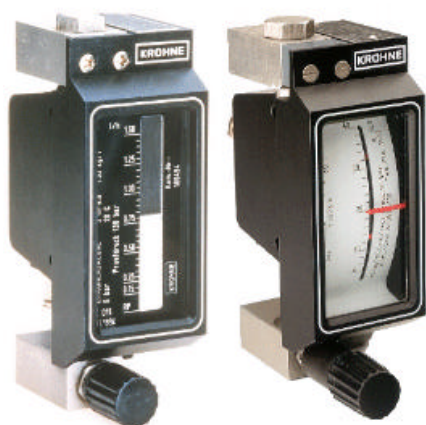




Variable area flowmeter DK 37

- Back-lit linear graph display (DK 37 E), or mechanical local indicator (DK 37 M)
- Rugged all-metal construction
- Suitable for a wide variety of applications
- Differential pressure regulator

The DK 37 flowmeters are especially suitable for indicating the instantaneous flow value of liquids, gases and vapours. They operate on the float measuring principle, with flow from bottom to top.

Technical Data

Measuring range

Water at 20°C (68°F) 3 to 100 l/h (0,013 to 0,44 US GPM) Option max 160 l/h (0,70 US GPM)
 Air at 1013 mbar, 20°C (14,7 psia, 68°F) 50 to 3400 l/h (0,031 to 2,11 SCFM) Option max. 4000 l/h (2,48 SCFM)

Turn-down ratio 10:1

Accuracy class to VDI/VDE code 3513 2.5 to VDI / VDE Code 3513 sh. 2

Scale graduation flow units

Max. allowable operating pressure

at 20°C (68°F) 130 bar (1885 psig), Test pressure is 1,3 times the specified operating pressure. Information on higher pressure levels supplied on request
 (dependent on type of connection)

Max. process temperature (Tp)

DK 37 M without option K

DK 37 M option K*

DK 37 E

Ambient temperature (Ta) with option

DK 37 M/K

DK 37 E

- 80°C to + 180°C* (- 112°F to + 356°F)*
 - 25°C to + 180°C* (- 13°F to + 356°F)*; see table
 - 55°C to + 155°C (- 67°F to + 311°F)*; see table

* > 150°C (302°F), valve setting knob of aluminium

- 25°C to + 60°C (- 13°F to + 140°F)
 - 25°C to + 60°C (- 20°C to + 60°C for "Ex" units)
 [- 13°F to + 140°F (- 4°F to + 140°F for "Ex" units)]

Max. process temperature (Tp)

Version	Non-hazardous area						Hazardous area					
	Ta < 40°C (104°F)		Ta < 50°C (122°F)		Ta < 60°C (140°F)		Ta < 40°C (104°F)		Ta < 50°C (122°F)		Ta < 60°C (140°F)	
	Tp in °C	Tp in °F	Tp in °C	Tp in °F	Tp in °C	Tp in °F	Tp in °C	Tp in °F	Tp in °C	Tp in °F	Tp in °C	Tp in °F
DK 37 M/K	145 (180)	293 (356)	115 (180)	239 (356)	85 (165)	185 (329)	-	-	-	-	-	-
DK 37 E	145 (180)	293 (356)	115 (180)	239 (356)	85 (165)	185 (329)	140 (150)	284 (302)	110 (130)	230 (266)	80 (115)	176 (239)

Figures in brackets only allowed if a min. 100°C (212°F) heat resistance cable is used.

Connection

Screw connection
 Screw connection to DIN 11851
 Adapters

1/4" NPT female thread
 DN 10, PN 40
 Ermeto 6 or 8, Serto 6 or 8, Dilo, Gyrolök, Swagelok

Protection category IP 65, equivalent to NEMA 12 and 13

Materials

Wetted parts:
 connection blocks stainless steel 1.4581 (316 Ti)
 valve, plug stainless steel 1.4571 (316 Ti)
 cone, float
 gaskets PTFE
 float stop PFA
 Housing aluminium with Eloxal coating

Flow table

Water at 20°C (68°F)
 Air at 20°C, 1.013 bar abs (68°F, 14.7 psia)
 100% flow values, turn-down ratio 10:1

Cone		Valve spindle diameter		Water		Air	
No.	Code	mm	inches	l/h	US GPM	l/h	SCFM
K 005	K 7	1.0	0.04	-	-	50	0,031
K 010	K 5	1.0	0.04	3	0.013	100	0,062
K 015	K 9	1.0	0.04	5	0.022	150	0,093
K 040	K 4	2.5	0.1	10	0.044	400	0,248
K 080	K 1	2.5	0.1	25	0.110	800	0,496
K 125	K 2	2.5	0.1	40	0.176	1250	0,775
K 200	K 3	4.5	0.18	60	0.264	2000	1,241
K 300	K 6	4.5	0.18	80	0.352	2500	1,551
K 340	K 8	4.5	0.18	100	0.440	3400	2,109

Limit switch SC 2-N0 for DK 37 M

The SC 2-N0 limit switch is a slot sensor with built-in preamplifier. The sensor is activated by the dipping action of an aluminium vane that is mounted on the pointer shaft of the flowmeter.
 The limit switches can be set over the full measuring range. The set limits are indicated on the scale.
 An isolation switching amplifier is required for operation of one limit switch.

Isolation switching amplifier	Power supply	Channel	Order No.
KHA6-SR2-Ex1.W	230 VAC	1	5015262000
KHA5-SR2-Ex1.W	110 VAC	1	5015262100
KHd2-SR2-Ex1.W	24 VDC	1	5015262200
KHA6-SR2-Ex2.W	230 VAC	2	5015262300
KHA5-SR2-Ex2.W	110 VAC	2	5015262400
KHd2-SR2-Ex2.W	24 VDC	2	5015262500

Technical data SC 2-N0

Rated voltage	8 VDC
Power consumption	
active area clear	3 mA
active area obscured	1 mA
Protection category	IP 67 (NEMA 6)
Ambient temperature	-25 to +100°C (-13 to 212°F)
Electromagnetic compatibility (EMC)	to EN 50081.1, EN 50082-2
Electrical characteristics to DIN 19234 (NAMUR)	
<u>Only relevant for use in hazardous areas</u>	
<u>Only for connection to intrinsically safe circuits with the following Peak values:</u>	
No-load voltage U_0	15,5 V
Short-circuit voltage I_K	52 mA
Output P	169 mW
Self-inductance (Li)	150 µH
Self-capacitance (Ci)	150 nF
Individual approval	PTB-No. Ex-95.D.2125X

Differential pressure regulators

Data on request

Subject to change without notice.
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