

FLOW METER : FLOW MONITOR AND INDICATOR TYPE : DWG

OPERATING PRINCIPLE

Flow indicators type DWG operate on the suspended body - introduced through a cylindrical slotted nozzle - measurement principle.

Outside the flow circuit, a contact reed is mounted. This one is adjusted into an infinitely variable housing and so, is protected from external influences. When the liquid rushes, the suspended body moves in the direction of the flow.

When the suspended body - with its inside magnets - reaches the reed contact's position, the contacts' blades close. As the flow rate increases, the suspended body always moves in the flow direction, until it reaches the stop which prevents it from entering the commutating field of the reed contact (bistable function).

The top edge of the suspended body corresponds to the reading edge and indicates the flow on the scale etched into the side glass.



ADVANTAGES

- High switch accuracy
- High reliability
- Low switching hysteresis
- Continuous switch point control
- Large switching range
- Scale etched into the side glass
- Robust design

APPLICATIONS

Flow monitoring and controlling: cooling systems on welding machinery, laser and cathode ray equipment, dosing systems, pumps, compressors, hydraulic systems and high pressure plants.

SWITCHING RANGE

The switch point can be gradually adjusted through the wide switching range. The effective flow rate, corresponding to the flow speed, can be more important than the maximum indicated scale value.

SWITCHING HYSTERESIS

It corresponds to the stroke of the suspended body between switch-on and switch-off flow rate. The shorter it is, the lower the switching hysteresis is, and the more precise the flow monitor is. Low switching hysteresis magnets and reed contacts selection allows a low switching hysteresis, that is interesting where accuracy is required.

INSTALLATION HINTS

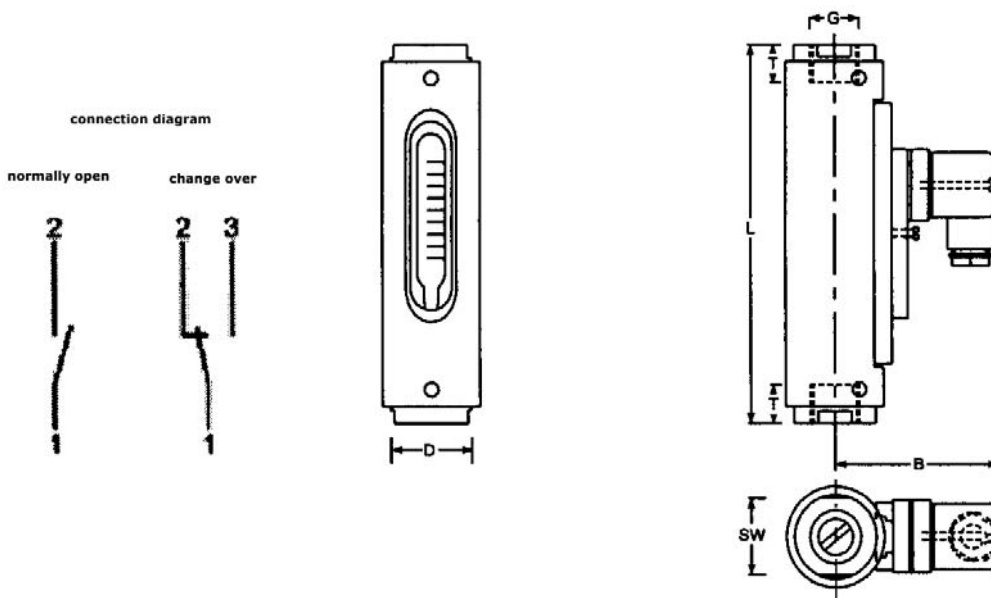
The device must be vertically mounted, with the flow direction from bottom to top.

MAINTENANCE

Due to its design the flow monitor requires low maintenance.

Fluids containing solid particles must be often purified.

1. The device must be vertically mounted.
1. Flow direction from bottom to top.
3. The fluid must not contain any solid particle.
4. The device and his switch contacts must not be in an external magnetic field.
5. Observe the maxi value for the reed contacts.
6. Switch point adjustment:
 - a) Move the terminal box down to the stop motion device,
 - b) Open the inflow until the top edge of the suspended body indicates the mini flow rate wanted (closing switch),
 - c) Move the terminal box up until the switch inside the tube opens. Close the inflow until the switch inside the tube closes again.



OPERATING DATA

Operating pressure.....PN 10 bar
 Pressure drop0,01 - 0,2 bar
 Maximum temperature.....100°C (optional: 160°C)
 Accuracy.....+/- 5% of full scale

ELECTRICAL DATA

	<i>normaly open SPST NO</i>	<i>change over SPDT</i>
IP65 (plug connection DIN 43650)	250V-1A-50VA	250V-1,5A-50VA
IP67 (1 m sealed in cable)	250V-1A-50VA	250V-1,5A-50VA
ATEX II 2G EEx m II T6	250V-2A-60VA	250V-1A-30VA
EEx m II T6 (2 m sealed in cable)	250V-2A-60VA	250V-1 A-30VA

MATERIALS

	BRASS	STAINLESS-STEEL
Float	brass nickel-plated	1.4571
Slotted nozzle	brass nickel-plated	1.4571
Connection	brass nickel-plated	1.4571
Sight glass	Duran 50	
Housing	Anode-brighten aluminium	
Gaskets	Perbunan (optional: Viton, EPDM)	Viton (optional: Perbunan, EPDM)
Terminal box with DIN 43650 appliance plug		

TYPE	Switch range l/min H ₂ O	SW	D	B	G	DN	T	L	Weight (gr.)
DWG - 1,5	0,1 - 1,5	32	43	73	R 1/4"	8	14	132	625
DWG - 3	0,2 - 3,0				R 3/8"	10	14	135	
DWG - 8	0,3 - 8,0				R 1/2"	15	15	135	
DWG - 12	1 - 12								
DWG - 18	2 - 18	32	43	73	R 1/2" R 3/4"	15 20	15 16	163 167	650
DWG - 35	3 - 35	41	50	76	R 3/4"	20	18	164	850
DWG - 50	4 - 50				R 1"	25	19	184	

FLOW METER : FLOW MONITOR AND INDICATOR TYPE : RVO/U

OPERATING PRINCIPLE

Flow indicators type RVO and RVO/U operate on the float measuring principle, independent of pressure.

When the liquid rushes, a float inside a housing, and equipped with a permanent magnet, moves in the direction of the flow.

Through magnetical transmission, it activates a detector (reed contact) mounted outside the housing.

The float's stroke is limited by a stop in the top edge in order to secure the electric interlocking of the switch.



ADVANTAGES

- High reliability
- High switch accuracy
- No problem for the float control
- Insensitivity to clogging
- Continuous switch point control
- Low switching hysteresis
- Compact over-all dimensions
- Low cost

APPLICATIONS

The flow meters are used for water supplies monitoring. They are suitable everywhere a reliable flow monitoring or a controlling must be done, for security or automatic control reasons.

SWITCHING RANGE

The switching range defines the setting range of the magnetic detector switch point. The effective flow rate can be more important.

SWITCHING HYSTERESIS

It corresponds to the stroke of the suspended body between switch-on and switch-off flow rate. The shorter it is, the lower the switching hysteresis is, and the more precise the flow monitor is. Detectors with low switching hysteresis exist on flow meters type RVO/U-2. Switching hysteresis between 1,5 and 0,5 mm depending on the type.

INSTALLATION HINTS

The device can be vertically or horizontally mounted, with the flow direction from bottom to top.

MAINTENANCE

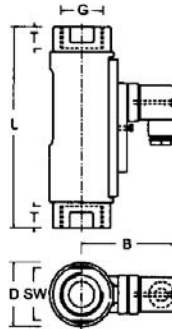
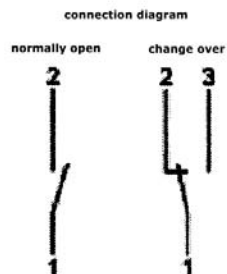
Due to its design, the flow monitor requires low maintenance.

Fluids containing magnetic particles must often be purified.

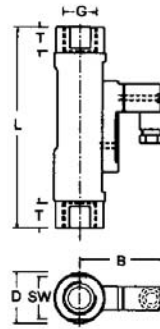
RELIABILITY

Float's weight and the magnetic transmission detection principle ensure a high reliability. No mechanical fatigue, no moving parts, except for the float.

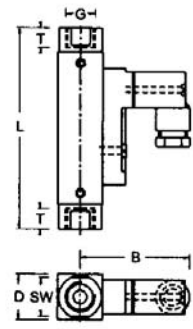
1. The device must be vertically mounted.
2. Flow direction from bottom to top.
3. The fluid must not contain any solid particle.
4. The device and his switch contacts must not be in an external magnetic field.
5. Observe the maxi value for the reed contacts.
6. Switch point adjustment:
 - a) Move the terminal box down to the stop motion device,
 - b) Open the inflow until the top edge of the suspended body indicates the mini flow rate wanted (closing switch),
 - c) Move the terminal box up until the switch inside the tube opens. Close the inflow until the switch inside the tube closes again.



RVO/U - 1
PN 10 bar
0,02 - 0,4 bar



RVO/U - 2
PN 10 bar
0,02 - 0,3 bar
100°C (optional: 160°C)
+/- 10% of full scale



RVO/U - 4
PN 16 bar
0,02 - 0,2 bar

OPERATING DATA

Operating pressure
Pressure drop
Maximum temperature
Accuracy

ELECTRICAL DATA

Normally open SPST NO
Change over SPDT
II 2 G EEx m II T6 (only for RVO/U-1)
II 2 D IP67 T80°C (only for RVO/U-1)
Ingress protection

230V-1A-50VA
250V-1,5A-50VA

230V-3A-60VA
250V-1,5A-50VA

200V-1A-20VA
200V-1A-20VA

change over:250V-1A-30VA; normally open:250V-2A-60VA
change over:250V-1A-30VA; normally open:250V-2A-60VA
IP 65 (plug connection); IP 67 (cable, EEx version)



MATERIAL

Magnets
Float
Slotted nozzle
Spring
Connection
Sight glass
Housing
Gaskets

BRASS
ferrite
brass nickel-plated
brass nickel-plated
stainless-steel 316 TI
brass nickel-plated

STAINLESS-STEEL
ferrite
316 TI
316 TI
316 TI
316 TI

Duran 50

Anode-brighten aluminium

Perbunan (optional: Viton, EPDM)

Viton (optional: Perbunan, EPDM)

Terminal box with DIN 43650 appliance plug(every design)

TYPE	Switch range l/min H ₂ O	SW	D	B	G	DN	T	L	Weight (gr.)
RVO/U - 4/01	0,005 - 0,06	17	20	49	R 1/4"	8	10	90	140
RVO/U - 4/02	0,025 - 0,14								
RVO/U - 4/06	0,1 - 0,6								
RVO/U - 4/1	0,2 - 1,2								
RVO/U - 4/2	0,4 - 2,0								
RVO/U - 4/3	0,5 - 3,0								
RVO/U - 4/5	1,0 - 5,0	27	32	53	R 1/2"	15	14	114	300
RVO/U - 2/05	0,1 - 0,5								
RVO/U - 2/1	0,2 - 1,0								
RVO/U - 2/2	0,4 - 1,6								
RVO/U - 2/4	1 - 4								
RVO/U - 2/8	2 - 8								
RVO/U - 2/15	4 - 15	41	50	77	R 3/4"	20	18	139	800
RVO/U - 2/20	5 - 22								
RVO/U - 2/28	6 - 28				R 1"	25	18	158	900
RVO/U - 1/30	8 - 30								
RVO/U - 1/45	15 - 45	41	50	77	R 1"	25	18	158	900
RVO/U - 1/90	30 - 90								
RVO/U - 1/150	60 - 150								

FLOW METER : FLOW MONITOR AND INDICATOR TYPE : DKM

OPERATING PRINCIPLE

Flow indicators type DKM operate on the float measuring principle, independant of pressure. When the liquid rushes, a float inside a housing, and equipped with a permanent magnet, moves in the direction of the flow.

Through magnetical transmission, it activates a detector (reed contact) mounted outside the housing.

The float's stroke is limited by a stop in the top edge in order to secure the electric interlocking of the switch.



APPLICATIONS

The flow meters are used for oil supplies monitoring. They are suitable everywhere a reliable flow monitoring or a controlling must be done, for security or automatic control reasons.

SWITCHING RANGE

The switching range defines the setting range of the magnetic detector switch point. The effective flow rate can be more important.

SWITCHING HYSTERESIS

It corresponds to the stroke of the suspended body between switch-on and switch-off flow rate. The shorter it is, the lower the switching hysteresis is, and the more precise the flow monitor is. Detectors with low switching hysteresis exist on flow meters type DKM. Switching hysteresis about 1,5 mm depending on the type.

INSTALLATION HINTS

The device can be vertically or horizontally mounted, with the flow direction from bottom to top.

ADVANTAGES

- High reliability
- High switch accuracy
- No problem for the float control
- Insensitivity to clogging
- Continuous switch point control
- Low switching hysteresis
- Compact over-all dimensions
- Low cost

MAINTENANCE

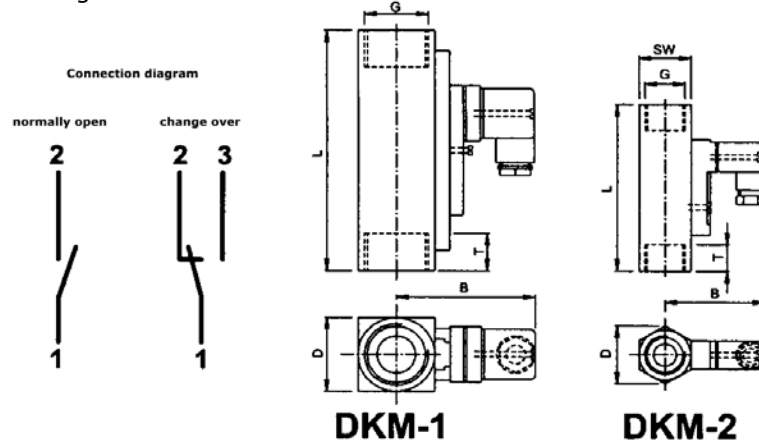
Due to its design, the flow monitor requires low maintenance.

Fluids containing magnetic particles must often be purified

RELIABILITY

Float's weight and the magnetic transmission detection principle ensure a high reliability. No mechanical fatigue, no moving parts, except for the float.

1. The device can be mounted in any position.
2. Flow direction from bottom to top.
3. The fluid must not contain any solid particle.
4. The device and his switch contacts must not be in an external magnetic field.
5. Observe the maxi value for the reed contacts.
6. Switch point adjustment:
 - a) Move the terminal box down to the stop motion device,
 - b) Open the inflow until the top edge of the suspended body indicates the mini flow rate wanted (closing switch),
 - c) Move the terminal box up until the switch inside the tube opens. Close the inflow until the switch inside the tube closes again.



OPERATING DATA

Operating pressure
 Pressure drop
 Maximum temperature
 Accuracy
 Viscosity range

DKM 1/...
 PN 250 bar (brass); PN 300 bar (SS)
 0,02 - 0,4 bar

DKM 2/...
 PN 300 bar (brass); PN 350 bar (SS)
 0,02 - 0,2 bar

120°C (optional: 160°C)
 +/- 10% of full scale
 30 - 600 cSt

ELECTRICAL DATA

Normally open SPST NO
 Change over SPDT
 ATEX II 2G EEx m II T6

230V-1A-50VA
 250V-1,5A-50VA
 change over: 250V-1A-30VA; normally open: 250V-2A-60VA

230V-3A-60VA
 250V-1,5A-50VA

II 2 G EEx m II T6
 Ingress protection

change over: 250V-1A-30VA; normally open: 250V-2A-60VA Ex
 IP 65 (DIN43650 plug connection); IP 67 (cable, EEx version)

MATERIALS

Float
 Spring
 Magnets
 Housing
 Gaskets

BRASS
 brass
 stainless-steel 1.4571
 ferrite
 brass nickel-plated

STAINLESS-STEEL
 1.4571
 1.4571
 ferrite
 1.4571

Viton (optional: Perbunan, EPDM)

Viton (optional: Perbunan, EPDM)

TYPE	Switch range l/min oil	SW	D	B	G	DN	T	L	Weight (gr.)
DKM - 2/2	0,5 - 1,6	24	31	52	R 1/4"	8	14	98	400
		24			R 3/8"	10		108	450
		27			R 1/2"	15		90	350
DKM - 2/3	0,8 - 3	27	31	52	R 1/2"	15	14	90	350
DKM - 2/7	2 - 7								
DKM - 1/1	0,1 - 0,8	34	40	76	R 1/4"	8	21	152	1500
DKM - 1/2	0,5 - 1,5	34			R 1/2"	15	21	152	1425
		34			R 3/4"	20	21	152	1340
		40			R 1"	25	17	130	1160
DKM - 1/4	1 - 4	40	40	76	R 1/2"	15	21	152	1425
DKM - 1/8	2 - 8								
DKM - 1/10	3 - 10								
DKM - 1/15	5 - 15								
DKM - 1/24	8 - 24	40	40	76	R 3/4"	20	21	152	1340
DKM - 1/30	10 - 30								
DKM - 1/45	15 - 45								
DKM - 1/60	20 - 60	40	40	76	R 1"	25	17	130	1160
DKM - 1/90	30 - 90								
DKM - 1/110	35 - 110	40	40	76	R 1"	25	17	130	1160

FLOW METER : FLOW MONITOR AND INDICATOR TYPE : DWM/A

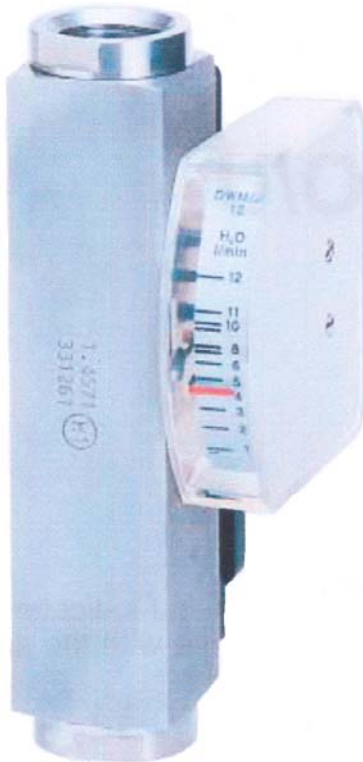
OPERATING PRINCIPLE

Flow indicators type DWM/A operate on the suspended body measurement principle, independent of pressure. This suspended body is introduced through a cylindrical slotted nozzle.

Outside the flow circuit, a contact reed under shielding atmosphere is mounted. This one is adjusted into an infinitely variable housing and so, is protected from external influences. When the liquid rushes, the suspended body moves in the direction of the flow.

When the suspended body – with its inside magnets – reaches the reed contact's position, the contacts' blades close. As the flow rate increases, the suspended body always moves in the flow direction, until it reaches the stop which prevents it from entering the commutating field of the reed contact (bistable function).

The outside mounted reading instrument shows the flow rate.



ADVANTAGES

- High switch accuracy
- High reliability
- Low switching hysteresis
- Continuous switch point control
- Works at high operating pressures
- Especially suitable for murky and dark liquids
- Robust design

APPLICATIONS

Water supplies monitoring and controlling : cooling systems on welding machinery, laser and cathode ray equipment, dosing systems, pumps, compressors, hydraulic systems and high pressure plants.

SWITCHING RANGE

The switch point can be gradually adjusted through the wide switching range. The effective flow rate, corresponding to the flow speed, can be more important than the maximum indicated scale value.

SWITCHING HYSTERESIS

It corresponds to the stroke of the suspended body between switch-on and switch-off flow rate. The shorter it is, the lower the switching hysteresis is, and the more precise the flow monitor is. Detectors with low switching hysteresis exist on flow meters type DWM/A. switching hysteresis between 1,5 and 2 mm.

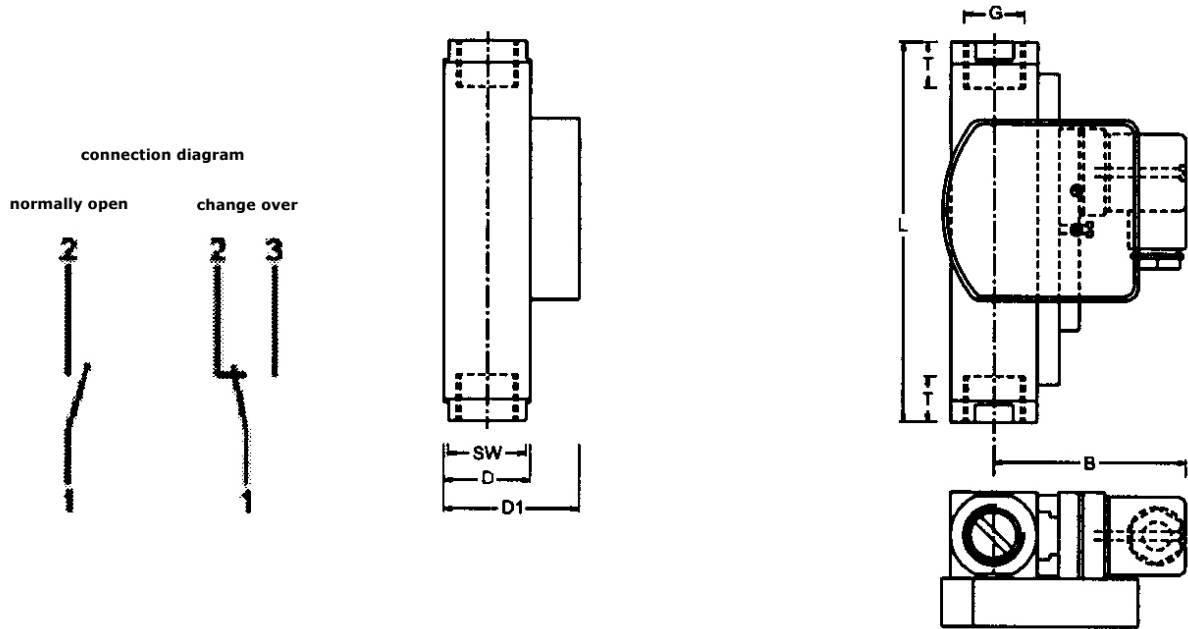
INSTALLATION HINTS

The device must be vertically mounted, with the flow direction from bottom to top.

MAINTENANCE

Due to its design, the flow monitor requires low maintenance. Fluids containing magnetical particles must often be purified.

1. The device must be vertically mounted.
2. Flow direction from bottom to top.
3. The fluid must not contain any solid particle.
4. The device and his switch contacts must not be in an external magnetic field.
5. Observe the maxi value for the reed contacts.
6. Arrow setting on the terminal box, at the wanted flow rate on the graduated scale etched on the device's housing.



OPERATING DATA

Operating pressure.....PN 200 bar (brass); PN 300 bar (stainless-steel)
 Pressure drop.....0,02 - 0,2 bar
 Maximum temperature100°C (optional: 160°C)
 Accuracy.....+/- 5% of full scale

ELECTRICAL DATA

IP65 (plug connection DIN 43650)
 IP67 (1 m sealed in cable)
 ATEX II 2G EEx m II T6
 EEx m II T6 (2 m sealed in cable)

normally open SPST NO

230V-1A-50VA
 250V-2A-60VA
 250V-2A-60VA
 250V-2A-60VA

change over SPDT

250V-1,5A-50VA
 250V-1A-30VA
 250V-1A-30VA Ex
 250V-1 A-30VA

MATERIALS

Float
 Slotted nozzle
 Connection
 Housing
 Gaskets

BRASS

brass nickel-plated
 brass nickel-plated
 brass nickel-plated
 brass nickel-plated
 Perbunan (optional: Viton, EPDM)

STAINLESS-STEEL

1.4571
 1.4571
 1.4571
 1.4571
 Viton (optional: Perbunan, EPDM)

TYPE	Switch range l/min H ₂ O	SW	D	D1	B	G	DN	T	L	Weight (gr.)
DWM/A - 1,5	0,1 - 1,5	27	30	47	71	R 1/4"	8	14	131	850
DWM/A - 3	0,2 - 3,0					R 3/8"	10	19		
DWM/A - 8	0,3 - 8,0					R 1/2"	15	19		
DWM/A - 12	1 - 12									
DWM/A - 18	2 - 18	27 32	30	47	71	R 1/2" R 3/4"	15 20	19 17	148 174	850 1010
DWM/A - 35	3 - 35	34	40	57	76	R 3/4" R 1"	20 25	18 19	152 156	1500
DWM/A - 50	4 - 50	40								

EDITION 11/2006 All this notice's data could be modified without warning

FLOW METER : FLOW MONITOR AND INDICATOR TYPE : DKG

OPERATING PRINCIPLE

Flow indicators type DKG operate on the float measuring principle, independent of the pressure. When the liquid rushes, a float inside a housing, and equipped with a permanent magnet, moves in the direction of the flow.

Through magnetical transmission, it activates a detector (reed contact) mounted outside the housing.

The float's stroke is limited by a stop in the top edge in order to secure the electric interlocking of the switch.



ADVANTAGES

- Absolute reliability
- High switch accuracy
- No problem for the float control
- Insensitivity to clogging
- Continuous switch point control
- Low switching hysteresis
- Compact over-all dimensions
- Low cost

APPLICATIONS

The flow meters are used for oil supplies monitoring. They are suitable everywhere a reliable flow monitoring or controlling must be done, for security or automatic control reasons.

SWITCHING RANGE

The switching range defines the setting range of the magnetic detector switch point. The effective flow rate can be more important.

SWITCHING HYSTERESIS

It corresponds to the stroke of the suspended body between switch-on and switch-off flow rate. The shorter it is, the lower the switching hysteresis is, and the more precise the flow monitor is. Detectors with low switching hysteresis exist on flow meters type DKG. Switching hysteresis about 1,5 mm depending on the type.

INSTALLATION HINTS

The device can be vertically or horizontally mounted, with the flow direction from bottom to top.

MAINTENANCE

Due to its design, the flow monitor requires low maintenance.

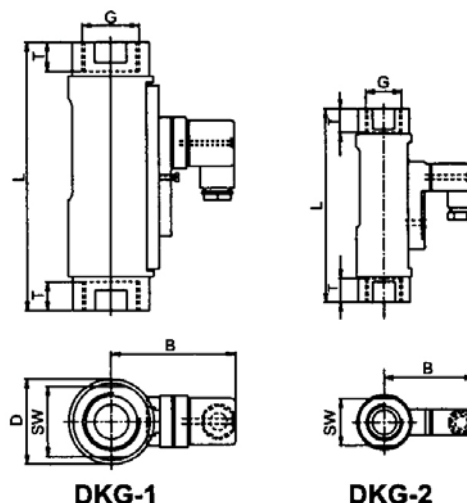
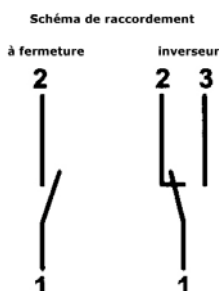
Fluids containing magnetic particles must be often purified.

RELIABILITY

Float's weight and the magnetic transmission detection principle ensure a high reliability. No mechanical fatigue, no moving parts, except for the float.

1. The device can be mounted in any position.
2. Flow direction from bottom to top.
3. The fluid must not contain any solid particle.
4. The device and his switch contacts must not be in an external magnet field.
5. Observe the maxi value for the reed contacts.
6. Switch point adjustment:

- a) Move the terminal box down to the stop motion device,
- b) Open the inflow until the edge of the suspended body indicates the mini flow rate wanted (closed switch),
- c) Move the terminal box up until the switch inside the tube opens. Close the inflow until the switch inside the tube closes again.



OPERATING DATA

Operating pressure
Pressure drop
Maximum temperature
Accuracy
Viscosity range

DKG 1/...
PN 10 bar
0,02 - 0,4 bar

120°C (optional: 160°C)
+/- 10% of full scale
30 - 600 cSt

DKG 2/...
PN 16 bar
0,02 - 0,2 bar

ELECTRICAL DATA

Normally open SPST NO
Change over SPDT
ATEX II 2G EEx m II T6 (only DKG-1)

230V-1A-50VA
250V-1,5A-50VA
change over:250V-1A-30VA; normally open:250V-2A-60VA

230V-3A-60VA
250V-1,5A-50VA

II 2 G EEx m II T6 (only DKG-1)
Ingress Protection

change over:250V-1A-30VA; normally open:250V-2A-60VA Ex
IP 65 (plug connection DIN43650); IP 67 (cable, EEx version)

MATERIALS

Float
Sight glass
Spring
Magnets
Housing
Gaskets

BRASS
brass nickel-plated
Duran 50
stainless-steel 1.4571
ferrite

STAINLESS-STEEL
1.4571
Duran 50
1.4571
ferrite

anode-brighten aluminium

Viton (optional: Perbunan, EPDM)

Viton (optional: Perbunan, EPDM)

Terminal box with DIN 43650 appliance plug

TYPE	Switch range l/min oil	SW	D	B	G	DN	T	L	Weight (gr.)
DKG - 2/2	0,5 - 1,7	27	32	53	R 1/2"	15	14	114	300
DKG - 2/4	1,3 - 4								
DKG - 2/8	2,5 - 8								
DKG - 1/1	0,1 - 0,8	41	50	77	R 1/4"	8	17	145	850
DKG - 1/2	0,5 - 1,5				R 1/2"	15		145	
DKG - 1/4	1 - 4				R 3/4"	20		139	
DKG - 1/8	2 - 8				R 1"	25		158	
DKG - 1/10	3 - 10	41	50	77	R 1/2"	15	17	145	850
DKG - 1/15	5 - 15				R 3/4"	20		139	
DKG - 1/24	8 - 24				R 1"	25		158	
DKG - 1/30	10 - 30	41	50	77	R 3/4"	20	17	139	850
DKG - 1/45	15 - 45				R 1"	25		158	
DKG - 1/60	20 - 60								
DKG - 1/90	30 - 90								

FLOW MONITOR TYPE : SPM

OPERATING PRINCIPLE

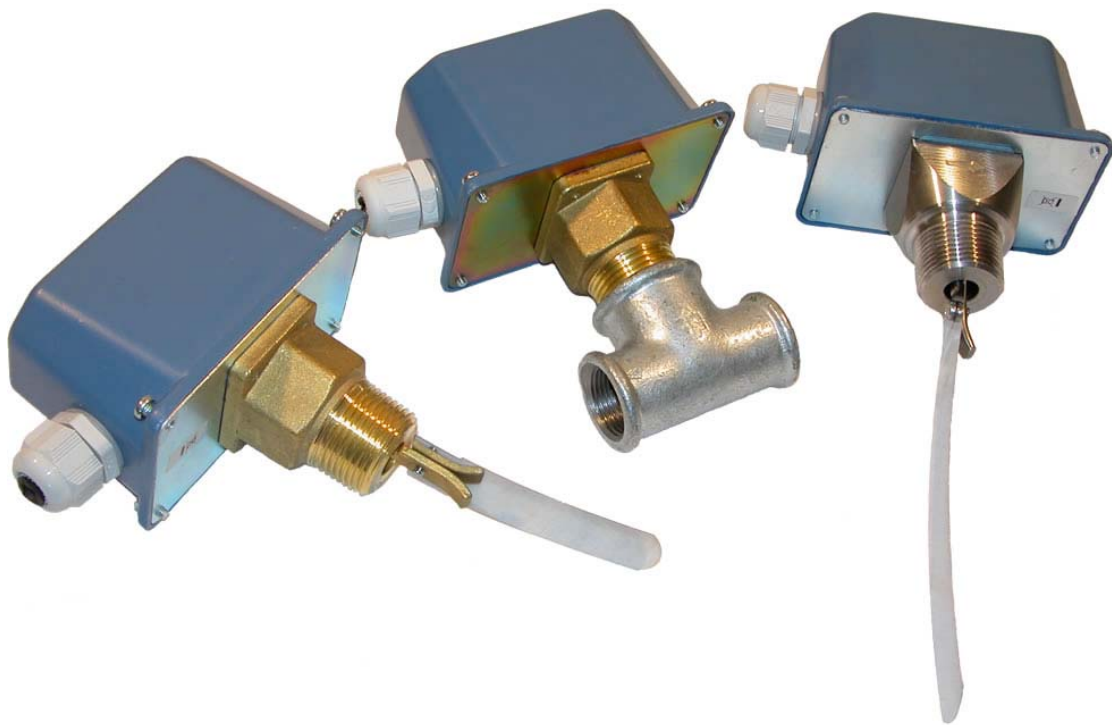
The flow monitor type SPM is used for liquid flow monitoring and controlling.

It's the fluid contact on the paddle which turns the microcontact breaker on. The paddles can be fitted and changed, which allows a wider regulation of the switching point and an adjustment to different pipes' diameters.

A bellows allows insulation against the humid part.

The flow monitor can be mounted in any position, in the flow direction.

Up- and down-stream of the flow monitor, the flow-straightening sections of the pipe have to be at least 5x the nominal pipe diameter.

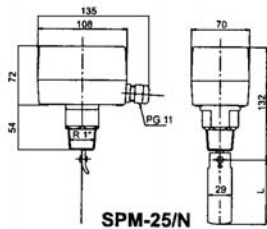


ADVANTAGES

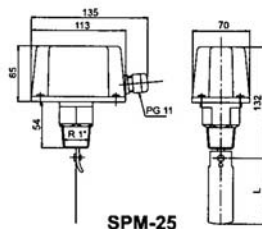
- Insensitivity to clogging
- Easy installation
- Low pressure drop

APPLICATIONS

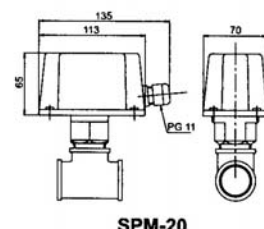
- Cooling-circuits
- Heating and air-conditioning circuits
- Safety of water shortage
- Protection against the flat broke walking of pumps



SPM-25/N



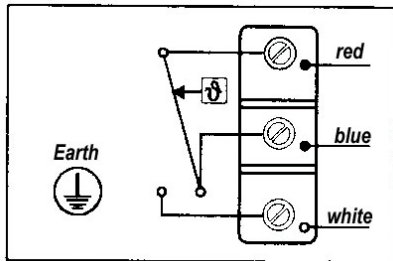
SPM-25



SPM-20

Connecting diagram

Tab 1: Overview



Red: common

Blue: NC

White: NO

Type	Pipe diameter	Max. pressure (bar)	Material
SPM-15	1/2"	11	Brass
SPM-20	3/4"		
SPM-25	1" - 8"	30	SS 316 L
SPM-25 VA		11	Brass
SPM-25T		30	SS 316 L
SPM-25/N		11	Brass
SPM-25/N VA		30	SS 316 L
SPM-25R		11	Brass
SPM-25R VA		30	SS 316 L
SPM-25R-N		11	Brass
SPM-25R/N VA		30	SS 316 L

By turning the spanscrew clockwise the switch values can be increased (refer to operating instructions).

Tab 2: Paddle lengths and material

OPERATING DATA

Max. pressure brass: 11 bar stainless-steel: 30 bar
 Max. pressure drop approx. 0,01-0,03 bar
 Max. fluid temperature -20 to +120°C
 Max. ambient temperature -35 to +65°C

Paddle type	DN	Length (mm)	Material
1	Standard: as of 50	28,5	Stainless-steel 316 L
	25	Must be cut to size	
2	Standard: 50 to 200	54,5	
3	Standard: 80 to 200	83,5	
4	Standard: as of 175	162,5	
	100 *	92,0	
	125 *	117,0	
	150 *	143,0	

TECHNICAL DATA

Material brass, stainless-steel 316 L
 Housing ABS

ELECTRICAL DATA

Switching voltage max. 24-250 VAC
 Breaking power max. 15 (8) A (change-over microcontact breaker)

* By shorten the standard paddle, the user can obtain special lengths.

Ingress Protection IP 65

Pipe nominal diameter	Paddle type	Standard switching range SPM-25, SPM-25 VA, SPM-25T, SPM-25/N, SPM-25/N VA		Special switching range SPM-25R, SPM-25R VA, SPM-25R/N, SPM-25R/N VA	
		Switch-off value m ³ /h water	Switch-on value m ³ /h water	Switch-off value m ³ /h water	Switch-on value m ³ /h water
25*	1	0,6-2	1-2,1	0,2-1	0,6-1,1
32	1	0,8-2,8	1,3-3	0,25-1,4	0,9-1,6
40	1	1,1-3,7	1,7-4	0,5-1,6	1,2-2,2
50	1 2	2,2-5,7	3,1-6,1	0,9-3,6	2,3-4,1
65	1 2	2,7-6,5	4,0-7,0	1,2-4,9	3,1-5,5
80	1 2 3	4,3-10,7	6,2-11,4	2,1-7,4	4,9-8,2
100	1 2 3	11,4-27,7	14,7-29,0	4,9-17,1	11,3-19,1
	1 2 3 4	(6,1-17,3)	(8,0-18,4)	(3,3-11,6)	(7,7-13,0)
125	1 2 3 4	22,9-53,3	28,4-55,6	9,7-34,0	22,4-37,9
	1 2 3 4	(9,3-25,2)	(12,9-26,8)	(5,0-17,5)	(11,5-19,6)
150	1 2 3 4	35,9-81,7	43,1-85,1	13,6-47,6	31,5-53,2
	1 2 3 4	(12,3-30,6)	(16,8-32,7)	(6,1-21,4)	(14,1-23,9)
200	1 2 3 4	72,6-165,7	85,1-172,5	25,7-90,1	59,6-100,7
	1 2 3 4	(38,6-90,8)	(46,5-94,2)	(21,7-55,3)	(36,5-61,8)

Tab 3: Switch values for water

* With a DN25 it is necessary to use a connector allowing the paddle to move freely.

The values in brackets concern the delivered long paddle. She must be shortened for a use with DN 100 to 150.

"T" PIECE VERSION (SPM-15, SPM-20)

Pipe nominal diameter	Connection	Switch-off value L/h water	Switch-on value L/h water
15	1/2"	174-846	480-948
20	3/4"	138-768	408-858