



Flow Monitor for Oil DKM-2

The flow monitors type DKM-2 operate with the float measuring principle



- Universal orientation
- High reliability
- High switch accuracy
- EX-version according to ATEX directive available

D-EN-DKM-2-20200603



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Features

- Universal orientation
- High reliability
- High switch accuracy
- Viscosity compensated
- Infinitely variable switch point adjustment by operator
- EX-version according to ATEX directive available
- High pressure resistance
- Threaded connection, special thread on request

Application

- Mechanical engineering
- Central lubrication
- Circulation lubrication
- Transformers

Installation information

The operating instructions for DKM-2 Module BASICS / ...ATEX must be observed!
Download: www.schmidt.messtechnik.de

Operating data	
Operating pressure max.	250 bar (MS), 350 bar (VA)
Pressure drop	0,02 – 0,2 bar
Viscosity range	30 cSt to 600 cST
Temperature max.	120°C (optional 160°C)
Measuring accuracy	±10% of full scale

Materials		
Wetted parts	Brass version	Stainless steel version
Spring	1.4571	1.4571
Gaskets	FKM (optional: NBR, EPDM) ⁽¹⁾	FKM (optional: NBR, EPDM) ⁽¹⁾
Magnets	Hard ferrite	Hard ferrite
Device body	Brass, nickel-plated	1.4571
All other wetted parts	Brass	1.4571

(1) Other gasket materials on request



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Measuring ranges			
Type	Switch range for oil, density 0,9 kg/dm ³ (2)		
	[l/min]	[gph]	[gpm]
DKM-2/2	0,5 – 1,5	8,0 – 25,5	
DKM-2/3	0,8 – 3	13,0 – 48,0	
DKM-2/7	2 – 7	32,0 – 111,0	

(2) The specified measuring- /switch ranges are valid for oils having a density of 0.9 kg/dm³ and a kinematic viscosity of 30 to 600 cSt, vertical installation of the device and flow direction from bottom to top.

Other installation positions or deviation from the operating densities and operating viscosities will increase the measurement error specified in the data sheet. Excessive operating viscosities will influence or may prevent function of the device.

Upon request, special scales for deviating media, different operating conditions and installation positions (only for devices which can be installed in any position) are available. The specified switch values are switch-off points, i.e. switch values by decreasing flow.

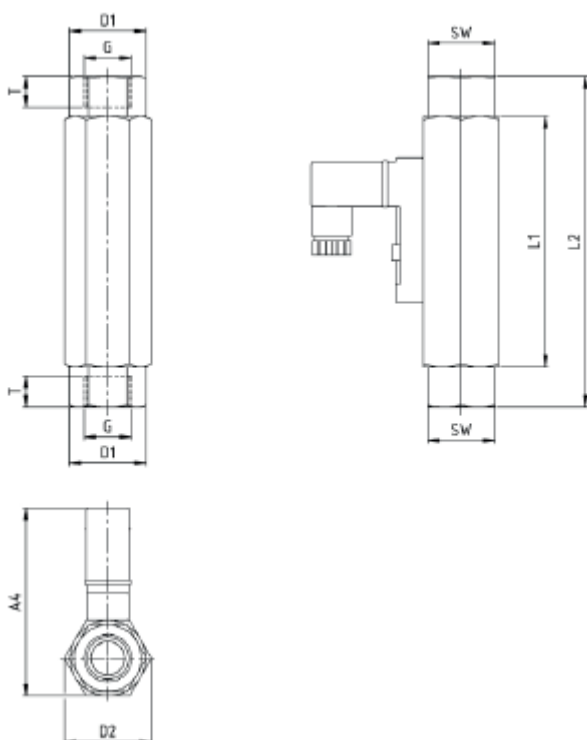
Other measuring- /switch ranges are available upon request.



Flow Monitor for Oil DKM-2

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Technical drawing, for devices with switch contact 15x50



Summary of types, for devices with switch contact 15x50

Summary of types, for devices with switch contact 15x50													
Type	Overall dimensions [mm]												Weight approx. [g] ⁽⁴⁾
	G ⁽³⁾	DN	SW	L1	L2	T	D1	D2	A 1	A 2	A 3	A4	
DKM-2/2	¼"	8	24	90	98	10	27,7	31,2	-	-	-	~67	350
	⅛"	10	24	90	118,6	11	27,7	31,2	-	-	-	~67	350
	½"	15	27	90	-	14	-	31,2	-	-	-	~67	350
DKM-2/3	½"	15	27	90	-	14	-	31,2	-	-	-	~67	350
DKM-2/7													
(3) NPT thread on request													
(4) Connection cable weight, 2 m approx. 80 g													

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(6) Minimum load 3 VA



Flow Monitor for Oil DKM-2

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Electrical connection (for devices with switch contact 15x50)

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m)

EX-version in compliance with ATEX directive

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m) ⁽⁷⁾

Ingress Protection

IP65: Connector in compliance with EN 175301-803, Form C or connector M12x1

IP67: Cable

Output signal

The contact opens / changes when the flow decreases below the set point.

Power supply

Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request

(7) Available as Normally Open Contact (NOC) only



Flow Monitor for Oil DKM-2

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Connection diagram (for devices with switch contact 15x50)

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



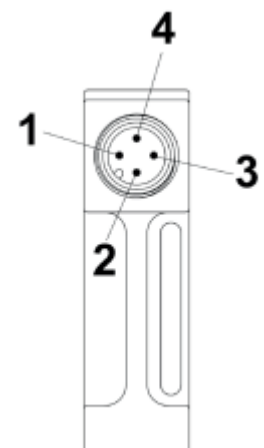
Normally open (NOC)



Normally open (NOC)



Pin-assignment

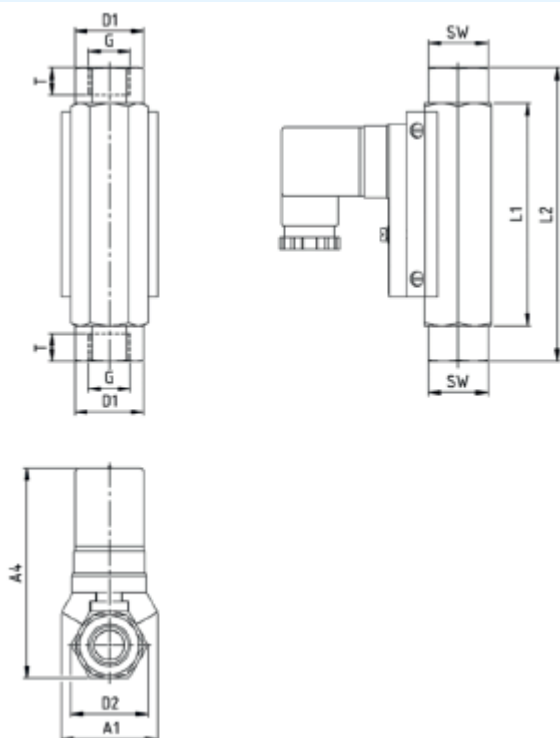




Flow Monitor for Oil DKM-2

The flow monitors type DKM-2 operate with the float measuring principle

Technical drawing, for devices with switch contact 30x70



Summary of types, for devices with switch contact 30x70

Type	Overall dimensions [mm]												Weight approx. [g] ⁽⁴⁾
	G ⁽³⁾	DN	SW	L1	L2	T	D1	D2	A 1	A 2	A 3	A4	
DKM-2/2	1/4"	8	24	90	98	10	27,7	31,2	38,9	-	-	~85	350
	3/8"	10	24	90	118,6	11	27,7	31,2	38,9	-	-	~85	350
	1/2"	15	27	90	-	14	-	31,2	38,9	-	-	~85	350
DKM-2/3	1/2"	15	27	90	-	14	-	31,2	38,9	-	-	~85	350
DKM-2/7													
(3) NPT thread on request													
(4) Connection cable weight, 2 m approx. 80 g													

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Electrical data (for devices with switch contact 30x70)	
Change over (COC)	250 V • 1,5 A • 50 VA (8)
Normally open (NOC)	250 V • 3 A • 100 VA
Change over M12x1 (-20 °C – 85 °C)	250 V • 1,5 A • 50 VA (8)
Normally open M12x1 (-20 °C – 85 °C)	250 V • 3 A • 100 VA
Change over PLC	250 V • 1 A • 60 VA
EX-version in compliance with ATEX directive ATEX II 2 G Ex mb II T6 & ATEX II 2 D Ex tD A21 IP67 T80 °C ATEX II 2 G Ex mb II T5 & ATEX II 2 D Ex tD A21 IP67 T100 °C	
Change over	250 V • 1 A • 30 VA ⁽⁸⁾
Normally open	250 V • 2 A • 60 VA ⁽⁸⁾

(8) Minimum load 3 VA



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Electrical connection (for devices with switch contact 30x70)

- Connector in compliance with EN 175301-803, Form A (DIN 43650, Form A)
- Connector M12x1
- Cable (1 m)

EX-version in compliance with ATEX directive

- Cable (2 m)

Ingress Protection

IP65: Connector in compliance with EN 175301-803, Form A

IP67: Cable or connector M12x1

Output signal

The contact opens / changes when the flow decreases below the set point.

Power supply

Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request



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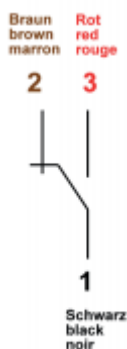
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Connection diagram (for devices with switch contact 30x70)

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



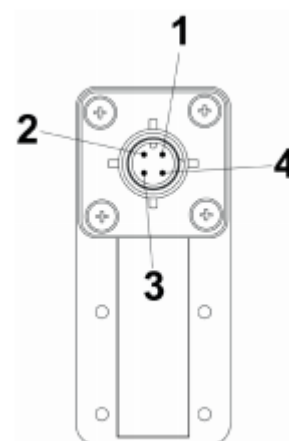
Normally open (NOC)



Normally open (NOC)



Pin-assignment



Important instructions!

Technical changes and errors reserved.

Pictures can be similar.

The operating instructions belonging to this device must be observed! Download at www.schmidt-messtechnik.com.