

# Flowmeter with analog output

## DKM/TA

### Function

The flowmeters type DKM/TA operate with the float measuring principle.



### Application

The flowmeters type DKM/TA are employed to measure and monitor volume flow of oils and other viscous media.

They are designed in such a way, that also with changes of viscosity, a reliable limit value monitoring is possible.

Here the kinematic viscosity may vary between 30 cSt and 600 cSt.

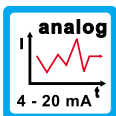
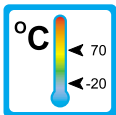
An analog transmitter produces an appropriate signal for the respective flow.

The signal can be employed by the user for most different measuring applications and tasks of regulation.

The instruments are predominantly used in lubricant systems.

Areas of application are:

- Central lubrication
- Circulation lubrication
- Transformers



### Features

The DKM/TA series proves itself through reliable function and high repeatability. Further characteristics of this series are:

- Analog output (4 - 20 mA / 0 - 10 V)
- High electromagnetic compatibility
- Zero and span of the measuring range separately adjustable (2 potentiometer)
- Universal mounting
- High pressure resistance
- Threaded connection  
Special threads on request

### Installation hints

The installation of the flowmeter can be done in any way in the system. The flow direction must be observed.

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

The medium must not contain any solid particles! We recommend the installation of strainers type SFD or SFM.

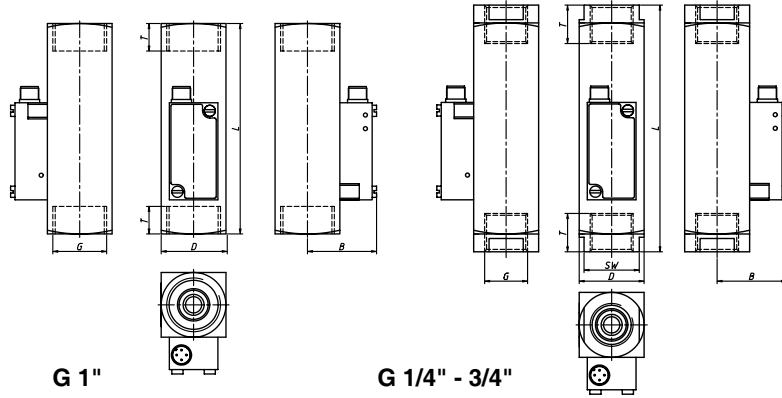
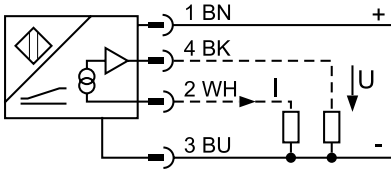
External magnetic fields influence the switch contact. Keep adequate distance to those magnetic fields (e.g. electromotors)!

The operating instruction for DKM/TA must be observed under any circumstances!



# Ranges, Technical data

## Connection diagram

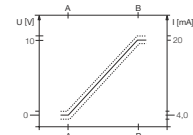


## Summary of types DKM/TA

Type	Switch range* [l/min]	Overall dimensions mm							Weight approx. [g]
		SW	D	B	G	DN	T	L	
DKM/TA-1/1	0,1 - 0,8	34			1/4"	8	21	152	1500
DKM/TA-1/2	0,5 - 1,5	34	40	42	1/2"	15	21	152	1425
DKM/TA-1/4	1 - 4	34			3/4"	20	21	152	1340
DKM/TA-1/8	2 - 8	40			1"	25	17	130	1160
DKM/TA-1/10	3 - 10	34	40	42	1/2"	15	21	152	1425
DKM/TA-1/15	5 - 15	34			3/4"	20	21	152	1340
DKM/TA-1/24	8 - 24	40			1"	25	17	130	1160
DKM/TA-1/30	10 - 30	34	40	42	3/4"	20	21	152	1340
DKM/TA-1/45	15 - 45	40			1"	25	17	130	1160
DKM/TA-1/60	20 - 60	34	40	42	3/4"	20	21	152	1340
DKM/TA-1/90	30 - 90	40			1"	25	17	130	1160
DKM/TA-1/110	35 - 110	40	40	42	1"	25	17	130	1160

\* Other switch ranges on request

Technical data	DKM/TA		
Measuring range [A...B]:	10...50 mm (adjustable by 2 potentiometers)		
Repeatability:	≤ 0,5 % of range [A...B] (≤ depending on positioner)		
Linearity error:	≤ 10 % of full scale of the flowmeter		
Temperature drift:	≤ ± 0,09 % / K	Analog output (current):	4...20 mA
Operating temperature:	-20 °C...+70 °C	Load resistance voltage output:	≥ 4,7 kΩ
Operating voltage U <sub>B</sub> :	15...30 VDC	Load resistance current output:	≤ 0,4 kΩ
Residual ripple:	≤ 10 % U <sub>SS</sub>	Measuring frequency:	800 Hz
No-load current I <sub>0</sub> :	≤ 23 mA	Recovery time at output:	≤ 12 ms
Design breakdown voltage:	≤ 0,5 kV	Housing material:	Plastic, PBT-GF20-V0
Output function:	four wire, analog output	Connection:	Plug, M12 x 1
Short-circuit protection:	yes	Vibration stability:	55 Hz (1 mm)
Wire rupture safety / polarity reversal protection:	yes / complete	Shock resistance:	30 x g (11 ms)
Analog output (voltage):	0...10 V	Ingress protection:	IP 67
Operating pressure:	PN 250 bar (Brass-version), PN 300 bar (Stainless Steel-Version)		
Pressure drop:	0,02 - 0,4 bar		
Viscosity range:	30 cSt - 600 cSt		
<b>Materials:</b>	<b>Brass-version</b>	<b>Stainless Steel-Version</b>	
Wetted parts:	Brass	1.4571	
Spring (wetted part)	1.4571	1.4571	
Gasket (wetted part)	Viton (optional Perbunan, EPDM)*	Viton (optional Perbunan, EPDM)*	
Magnets (wetted part)	Hard Ferrite	Hard Ferrite	
Housing (wetted part)	Brass nickel-plated	1.4571	



\*Other gaskets materials on request

