

**Product Information****TZ1-015..050GK****Flow Meter TZ1-...GK**

- Large analog display
- Monitor and display
- Simple adjustment by means of drag indicator
- Insensitive to dirt
- Short installation length

**Characteristics**

The volume flow raises a disc unit (fitted with a magnet) out from a valve seat against a spring force. The magnet actuates the display movement by means of a magnetic coupling.

**Technical data**

<b>Switch</b>	optionally micro switch	
<b>Nominal width</b>	DN 15..50	
<b>Process connection</b>	female thread G 1/2..G 2	
<b>Metering range</b>	2..250 l/min	for details see table "Ranges"
<b>Q<sub>max.</sub></b>	to 250 l/min	
<b>Tolerance</b>	±3 % of full scale value	
<b>Pressure resistance</b>	PN 100 bar	
<b>Medium temperature</b>	-20..+90 °C	
<b>Ambient temperature</b>	-20..+70 °C	
<b>Media</b>	water (oils, gases and aggressive media available on request)	
<b>Wiring</b>	changeover no. 0.342	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 5 A	
<b>Protection class</b>	2 - safety insulation	
<b>Ingress protection</b>	IP 65	
<b>Electrical connection</b>	plug DIN 43650-A / ISO 4400	
<b>Materials medium-contact</b>	1.4305, 1.4571, 1.4310, NBR, hard ferrite PTFE-coated	
<b>Non-medium-contact materials</b>	CW614N chromed, steel chromed, acrylic, FKM	
<b>Weight</b>	see table "Dimensions and weights"	

<b>Installation location</b>	Standard: horizontal inwards flow; display downwards not recommended; other installation positions are possible; the installation position affects the switching point and display range.
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**Ranges**

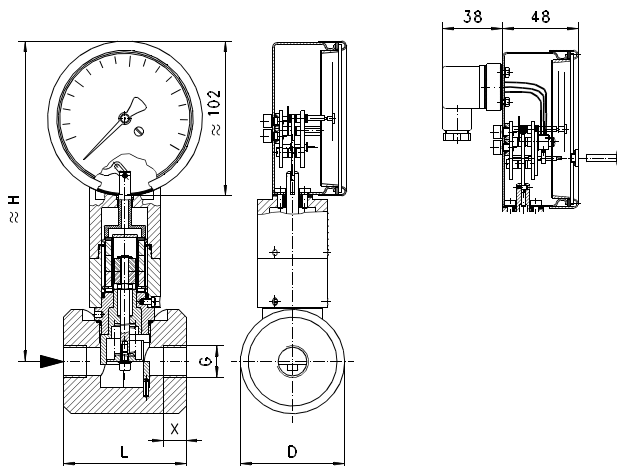
Details in the table correspond to horizontal inwards flow with increasing flow rate.

G	Nominal width	Metering range l/min H <sub>2</sub> O	Q <sub>max.</sub> recommended	Type
G 1/2	DN 15	2 - 6	8	TZ1-015GK006
		4 - 20	20	TZ1-015GK020
G 3/4	DN 20	5 - 40	40	TZ1-020GK020
				TZ1-020GK040
G 1	DN 25	10 - 60	60	TZ1-025GK060
G 1 1/4	DN 32	10 - 100	100	TZ1-032GK100
G 1 1/2	DN 40	10 - 150	150	TZ1-040GK150
G 2	DN 50	20 - 250	250	TZ1-050GK250

Special ranges are available

**Dimensions and weights**

G	Types	H	L	D	X	Weight kg
G 1/2	TZ1-015GK	210	80	68	15	2.9
G 3/4	TZ1-020GK				16	2.8
G 1	TZ1-025GK				18	2.7
G 1 1/4	TZ1-032GK		95	78	24	3.4
G 1 1/2	TZ1-040GK	223	105	88	25	3.7
G 2	TZ1-050GK	225	120	102	27	5.1



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**Handling and operation**

**Note**

- Include straight calming section of 5 x DN in inlet and outlet
- Include a filter if the media are dirty (use magnetic filter for ferritic components).
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switched on, a load must be connected in series.
- The electrical details apply to ohmic loads. Capacitive and inductive loads must be operated using a protective circuit.

**Adjustment**

The micro switch (optional) is adjusted by means of the knurled adjusting screw provided. The screw allows the drag indicator to be set to the desired switching value. The value displayed corresponds to a switching point for a decreasing flow rate.



**Ordering code**

TZ1  1.  2.  3. **G** 4. **K** 5.

○=Option

1. Additional devices		
-	only analog display	
M-	with integrated micro switch	
P-	○ with potentiometer	see „Additional devices for TZ1“
M2-	○ with 2 x normally open (n.o.)	
M3-	○ with 2 x normally closed (n.c.)	
2. Nominal width		
015	DN 15 - G 1/2	
020	DN 20 - G 3/4	
025	DN 25 - G 1	
032	DN 32 - G 1 1/4	
040	DN 40 - G 1 1/2	
050	DN 50 - G 2	
3. Process connection		
G	female thread	
4. Connection material		
K	stainless steel	
5. Metering range H <sub>2</sub> O for horizontal inwards flow		
006	2 - 6 l/min	●
020	4 - 20 l/min	● ●
040	5 - 40 l/min	●
060	10 - 60 l/min	●
100	10 - 100 l/min	●
150	10 - 150 l/min	●
250	20 - 250 l/min	●

**Options**

- Gold contact micro switch Goldkontakt
  - min: 5 V DC, 1 mA
  - max: 125 V AC, 30 V DC, 1 A
- Special Harting plug
- Metering ranges for oil or gas
- Special values

**Ordering information**

- Specify direction of flow, medium, and metering range.
- For oils. State viscosity, temperature and designation (e.g. ISO VG 68) (enquire about metering range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (request metering range)