

**GENERAL CHARACTERISTICS**

Mechanical Flowmeter for liquids or gaseous media. With mechanical triggering of a metering unit with 270° of pointer range. Robust design, produced in materials brass or stainless steel.

- \* local metering
- \* low pressure loss
- \* easy adjustment by indicating pointer



TZ1-050EM300

Socket flange DN40 to DN100 brass/stainless steel

**TECHNICAL DATA**

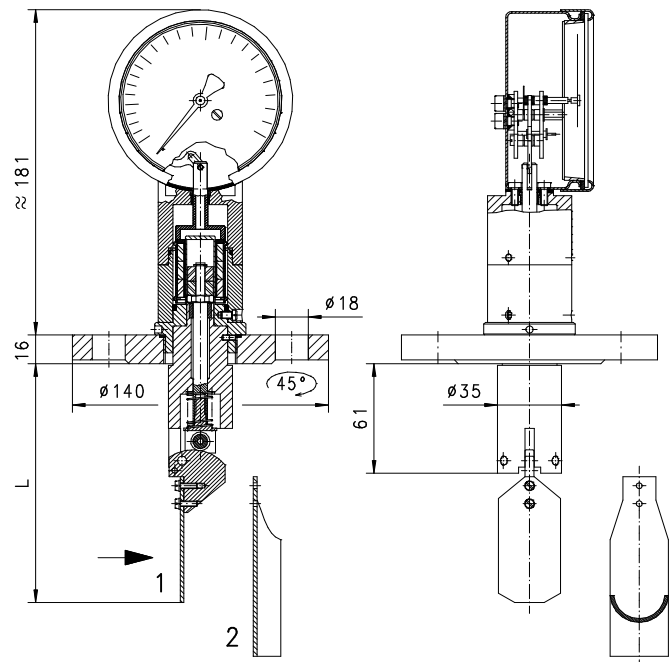
	DN	Type	PN bar	Qmax. recom. l/min H <sub>2</sub> O	metering range l/min H <sub>2</sub> O	paddle-form	L approx mm	weight kg
brass / stainless steel	40	TZ1-040E.250	16	450	50 - 250	1	93	3
		TZ1-040E.350	16	450	100 - 350	1	87	3
	50	TZ1-050E.350	16	450	80 - 350	1	98	3
		TZ1-050E.450	16	450	100 - 450	1	98	3
	65	TZ1-065E.350	16	550	100 - 350	1	111	3
		TZ1-065E.500	16	550	150 - 500	1	101	3
	80	TZ1-080E.450	16	900	130 - 450	1	126	3
		TZ1-080E.600	16	900	200 - 600	1	112	3
	100	TZ1-100E.800	16	1400	300 - 800	2	158	3
		TZ1-100E.1050	16	1400	350 - 1050	2	148	3

Metering range is indicated for horizontally increasing flow.  
Calibrated in tube DIN2448 standard wall thickness, socket height 50mm.

tolerance	±5% of full scale
media temperature	max. 90°C
average pressure loss	0.1bar at Qmax.
hysteresis	depending on switch value minimum 5 l/min.

**MATERIALS**

	VM-...EM	VM-...EK
flange	bronze Rg5	stainless steel 1.4571
body	brass Ms58 nickel plated	stainless steel 1.4305
paddle	stainless steel 1.4305 ; 1.4301	stainless steel 1.4305 ; 1.4301
components	up to DN 80 - stainless steel 1.4571 from DN100 - brass Ms58	
spring	stainless steel 1.4310	stainless steel 1.4310
magnet	oxyd 300	oxyd 300
seal	NBR	viton



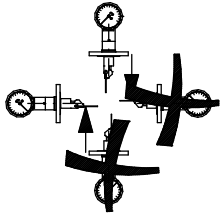
flange DIN 2527 nominal pressure 16 nominal diameter 32  
sealing surface DIN 2526 form C  
**Attention! Flange seal is not included in standard shipment.**

**ELECTRICAL DATA**

● **BASIC Standard**  
No electrical components.

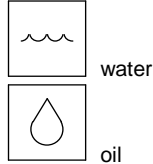
○ **BASIC Programme option**  
integrated micro switch  
with front switch units  
see data sheet 1.3.TZ1.ZE

**INSTALLATION POSITIONS**



Installation position may influence metering range.

**METERING SUBSTANCES**



**NOMENCLATURE**

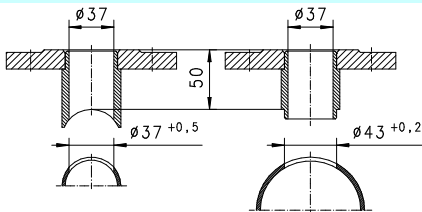
For combinations see table "technical data".

TZ1-	040	E	M	250		basic type
TZ1-					●	Flowmeter
TZ1M-					○	Flowmeter with integrated micro switch
	040				●	DN 40
	050				●	DN 50
	065				●	DN 65
	080				●	DN 80
	100				●	DN 100
		E			●	socket flange
			M		●	brass design
			K		●	stainless steel design
				250	●	50 - 250 l/min
				350	●	(80) 100 - 350 l/min
				450	●	(100) 130 - 450 l/min
				500	●	150 - 500 l/min
				600	●	200 - 600 l/min
				800	●	300 - 800 l/min
				1050	●	350 - 1050 l/min
Programme option					○	front switch unit with 10-kOhm-potentiometer
BASIC						diode
						nominal diameter DN 125-500
Special option					□	special ranges
VARIO						metering range for oil
						front switch unit 2pol, n.o. or n.c.

**IMPORTANT FOR YOUR ORDER**

- Please indicate flow direction, metering substance and metering range with your order.
- With viscous liquids please indicate viscosity, temperature and metering substance (metering range on request)
- For additional information concerning options micro switch and front switch see data sheet 1.3.TZ1M.ZE.

**INSTALLATION RECOMMENDATIONS**



DN40-65

DN80-200

tube Din 2448  
standard wall thickness

**ACCESSORIES**

The socket flanges as indicated in the installation recommendations are available in the Honsberg accessory range. See product information 71.1 FL.



All technical changes reserved

●BASIC Standard ○BASIC Programme option □VARIO Special option ⊕ PLUS Accessories ✗ not recommendable