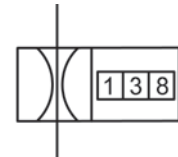


Description	Thermal mass flow meter based on high precision MEMS technology (CMOS sensor). Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges.		
Media	compressed air or non-corrosive gases		
Supply voltage	Standard AA battery or Micro-USB power supply (DIN62684), optionally external power +12 ...+30 V DC (max. 200 mA)		
Display	Touch-display 128 x 64 px, backlit only with external power supply (Micro-USB or 24 V DC)		
Electrical connector	optionally length 2.0 m, with free ends at 24 V DC		
Alarm functions	3 configurable alarms, programmable as : low alarm, high alarm, window alarm and totalizer alarm. The alarms can be configured with different parameters: delay and alarm duration. Relays: switching current up to 1A, switching voltage 30 V DC		
Accuracy	± 2% FS, from 200 l/min ± 3% FS		
Turndown ratio	1:50 (Eco) or 1:1000 (Special)		
Flow regulation	manual fine adjustment by 15 turns		
Temperature range	0 °C to 50 °C / 32 °F to 122 °F		
Material	Body: aluminium, optionally electropolished stainless steel 316		
	Response time	500 ms at 99% accuracy	
	Protection class	IP 50	
	Mounting position	any, horizontal from 5 bar on	
	Warm-up time	< 1 sec. for full accuracy	
	Elastomer	FKM, optionally EPDM	



2 ... 100 ml/min/450 l/min
compressed air or gases
accurate to 2%

Dimensions			Operating pressure	Accuracy	Connection thread	Flow rate	Order number
A	B	C					
mm	mm	mm	max. bar	%	G	ml/min / l/min	

Mass flow meter							w/o manual control valve, LCD-Display, battery mode, portable, aluminium, FKM	VGM*1
114	44	12.5	10	2	G¼	2 ... 100 ml/min		VGM-A1
				2		4 ... 200 ml/min		VGM-A2
				2		10 ... 500 ml/min		VGM-A5
				2		0.02 ... 1 l/min		VGM-B1
				2		0.04 ... 2 l/min		VGM-B2
				2		0.1 ... 5 l/min		VGM-B5
				2		0.2 ... 10 l/min		VGM-C1
				2		0.4 ... 20 l/min		VGM-C2
				2		1 ... 50 l/min		VGM-C5
160	54	17.5	10	2	G½	2 ... 100 l/min		VGM-D1
				2		4 ... 200 l/min		VGM-D2
				3		4 ... 300 l/min		VGM-D3
				3		9 ... 450 l/min		VGM-D4



VGM-G¼
mass flow meter

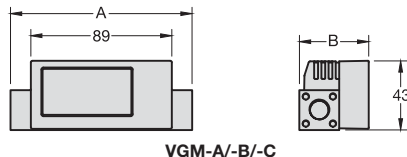


VGM-G½
mass flow meter

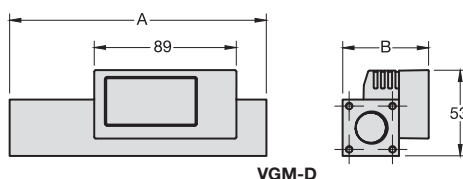
Special options, add the appropriate letter oder number

deviant volume flow	indicate on order	VGM-XX
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply	VGM- . .2 G
stainless steel body	electropolished throughout	VGM- . .S
EPDM elastomer	for VGM-A1 to -C5	VGM- . .E
24 V DC supply	cable attached on the device, length 2 m, with free ends	VGM- . .2
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front	VGM- . .T
0.1% accuracy		VGM- . .H
carbon dioxide	CO ₂	VGM- . .03
argon	Ar	VGM- . .05
nitrogen	N ₂	VGM- . .07
helium	He	VGM- . .09
hydrogen	H ₂	VGM- . .11
methane	CH ₄	VGM- . .13
oxygen	O ₂	VGM- . .15
propane	C ₃ H ₈	VGM- . .16
nitrous oxide	N ₂ O	VGM- . .17
gases	see above	VGM- D . .

Specific gas calibration			
gas species			max. l/min
nitrogen	07	N ₂	450
oxygen	15	O ₂	450
argon	05	Ar	300
helium	09	He	450
hydrogen	11	H ₂	300
carbon dioxide	03	CO ₂	150
propane	16	C ₃ H ₈	80
methane	13	CH ₄	100



VGM-A/-B/-C



VGM-D

