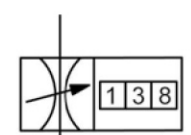


VGR - Régulateur proportionnel de débit, pour air comprimé et gaz neutres, à commande manuelle par potentiomètre (mass-flow)

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	Operating pressure	max. 10 bar
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	Function	totalisator included, physical units can be changed
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. Relais: switching current up to 1A, switching voltage 30 V DC		
Accuracy	± 2% FS, from 200 l/min ± 3% FS	Response time	500 ms at 99% accuracy
Turndown ratio	1:50 (Eco) or 1:1000 (Special)	Protection class	IP 50
Flow regulation	manual fine adjustment by 15 turns	Mounting position	any, horizontal from 5 bar on
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	Warm-up time	< 1 sec. for full accuracy
Material	Body: aluminium, optionally electropolished stainless steel 316	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			with manual control valve, LCD-Display, needle valve battery mode, portable, aluminium, FKM			VGR*1		
114	44	12.5	10	2	G¼	2 ... 100 ml/min	VGR-A1	
						2	4 ... 200 ml/min	VGR-A2
						2	10 ... 500 ml/min	VGR-A5
						2	0.02 ... 1 l/min	VGR-B1
						2	0.04 ... 2 l/min	VGR-B2
160	54	17.5	10	2	G½	0.1 ... 5 l/min	VGR-B5	
						2	0.2 ... 10 l/min	VGR-C1
						2	0.4 ... 20 l/min	VGR-C2
						2	1 ... 50 l/min	VGR-C5
						2	2 ... 100 l/min	VGR-D1
				2		4 ... 200 l/min	VGR-D2	
				3		4 ... 300 l/min	VGR-D3	
				3		9 ... 450 l/min	VGR-D4	



VGR-G¼ mass flow meter with manual control valve



VGR-G½ mass flow meter

Special options, add the appropriate letter order number

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

