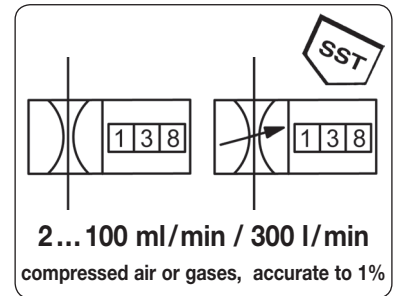


Portable Flow Meter and Hand-Operated Flow Regulator

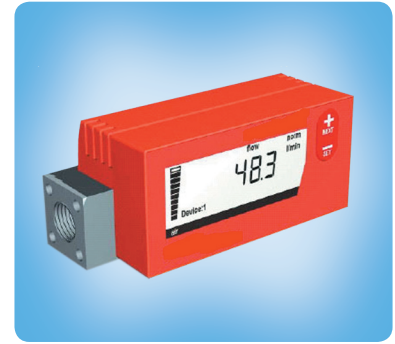
VG

Description	Thermal mass flow meter and hand-operated flow regulator based on high precision MEMS technology (CMOS sensor). For mobile battery operation or 24 V DC supply. Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges. Flow regulation at VGR via needle valve, manual fine adjustment by 15 turns.		
Media	compressed air or non-corrosive gases	Operating pressure	max. 10 bar
Supply voltage	lithium-type AA battery with 2-year life cycle as standard, optionally 24 V DC $\pm 10\%$		
Display	4-digit LCD display with 9 mm tall black numbers		
Electrical connector	optionally 8-wire cable, length 0.8 m	Protection class	IP 50
Flow switch	24 V DC SPDT switch, max. 1 A power consumption, potential-free, for max. and min. signal, adjustable over range. Failsafe mode and alarm suppression can be enabled. Alarm retardation 0...180 s, without hysteresis. Alarm reset manual or automatic.		
Response time	500 ms at 99% accuracy	Repeatability	$\pm 1\%$ FS, for butane $\pm 5\%$ FS
Mounting position	preferably horizontal	Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: aluminium, optionally electropolished	Heating-up period	30 min for optimal accuracy
	Transducer: PBT		Elastomer: FKM, optionally EPDM



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

Flow meter			LCD display, battery operation, portable, accurate to 1%, aluminium, FKM	VGM*1		
114	44	12.5	10	G $\frac{1}{4}$	2 ... 100 ml/min	VGM-A1
					4 ... 200 ml/min	VGM-A2
					10 ... 500 ml/min	VGM-A5
					0.02 ... 1 l/min	VGM-B1
					0.04 ... 2 l/min	VGM-B2
					0.1 ... 5 l/min	VGM-B5
					0.2 ... 10 l/min	VGM-C1
160	54	17.5	10	G $\frac{1}{2}$	1 ... 50 l/min	VGM-C2
					2 ... 100 l/min	VGM-C5
					4 ... 200 l/min	VGM-D1
					4 ... 200 l/min	VGM-D2
					4 ... 300 l/min	VGM-D3



VGM portable flow meter

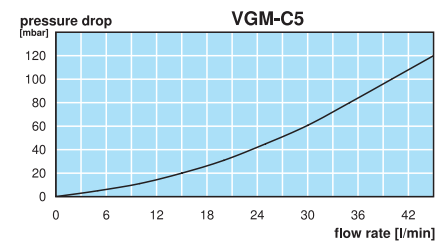
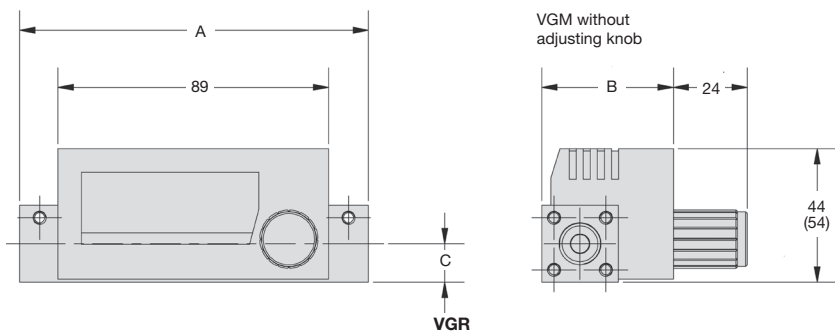
Hand-operated flow regulator			LCD display and needle valve, battery operation, portable, accurate to 1%, aluminium, FKM	VGR*1		
114	44	12.5	10	G $\frac{1}{4}$	2 ... 100 ml/min	VGR-A1
					4 ... 200 ml/min	VGR-A2
					10 ... 500 ml/min	VGR-A5
					0.02 ... 1 l/min	VGR-B1
					0.04 ... 2 l/min	VGR-B2
					0.1 ... 5 l/min	VGR-B5
					0.2 ... 10 l/min	VGR-C1
160	54	17.5	10	G $\frac{1}{2}$	0.4 ... 20 l/min	VGR-C2
					1 ... 50 l/min	VGR-C5
					2 ... 100 l/min	VGR-D1
					4 ... 200 l/min	VGR-D2
					4 ... 300 l/min	VGR-D3



VGR hand-operated flow regulator with display

Special options, add the appropriate letter				
deviant flow rate	to be indicated in clear text		VG . - X X	
limit switch	min. / max. alarm, 1A SPDT switch, including 24 V DC supply		VG . - . G	
stainless steel body	electropolished throughout		VGM- . . S	
			VGR - . . S	
EPDM elastomer	for VG.-A1 to -C5		VG . - . E	
24 V DC	voltage supply, cable attached on the device, length 0.8 m		VG . - . 2	
panel mounting	cut-out 48 x 96 mm, protection class IP 65 in the front		VG . - . T	
nitrogen	N ₂ : 07	carbon dioxide	CO ₂ : 03	
helium	He: 09	hydrogen	H ₂ : 11	
oxygen	O ₂ : 15	propane	C ₃ H ₈ : 16	
gas species	see above for G $\frac{1}{2}$		nitrous oxide	N ₂ O: 17
			VG . - D . .	

Specific gas calibration			
gas species		max. l/min	
nitrogen	07	N ₂	300
oxygen	15	O ₂	300
argon	05	Ar	200
helium	09	He	300
hydrogen	11	H ₂	300
carbon dioxide	03	CO ₂	100
propane	16	C ₃ H ₈	50
methane	13	CH ₄	50



Calibration or test chart: see chapter for technical informations
 *1 Note: indicate media, supply and outlet pressure on order

PDF CAD
www.aircom.net

Order example:
VGM-A1