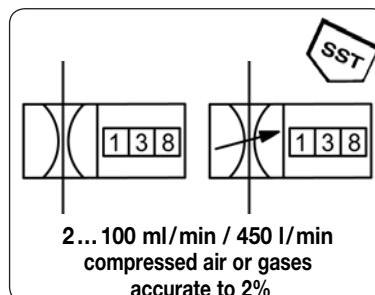


Portable Mass Flow Meter, also Hand-Operated

VG

Proport.
flow

Description	Thermal mass flow meter and hand-operated flow regulator 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	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 3.0 m				
Limit 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.				
Accuracy	$\pm 2\%$ FS, from 200 l/min $\pm 3\%$ FS, for butane $\pm 5\%$ FS				
Protection class	IP 50				
Mounting position	preferably horizontal from 5 bar on				
Temperature range	0 °C to 50 °C / 32 °F to 122 °F				
Material	Body: aluminium, optionally electropolished stainless steel 316 Transducer: PBT Elastomer: FKM, optionally EPDM				
	Operating pressure	Accuracy	Connection thread	Flow rate	Order number
	max. bar	%	G	ml/min / l/min	



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

Mass flow meter						LCD display, battery operation, portable, aluminium, FKM	VGM*1
114	44	12.5	10	2	G $\frac{1}{4}$	2 ... 100 ml/min	VGM-A1
				2		4 ... 200 ml/min	VGM-A2
				3		10 ... 500 ml/min	VGM-A5
				3		0.02 ... 1 l/min	VGM-B1
				3		0.04 ... 2 l/min	VGM-B2
				3		0.1 ... 5 l/min	VGM-B5
				3		0.2 ... 10 l/min	VGM-C1
				3		0.4 ... 20 l/min	VGM-C2
				3		1 ... 50 l/min	VGM-C5
160	54	17.5	10	2	G $\frac{1}{2}$	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
portable mass flow meter

Hand-operated mass flow meter						LCD display and needle valve, battery operation, portable, aluminium, FKM	VGR*1
114	44	12.5	10	2	G $\frac{1}{4}$	2 ... 100 ml/min	VGR-A1
				2		4 ... 200 ml/min	VGR-A2
				3		10 ... 500 ml/min	VGR-A5
				3		0.02 ... 1 l/min	VGR-B1
				3		0.04 ... 2 l/min	VGR-B2
				3		0.1 ... 5 l/min	VGR-B5
				3		0.2 ... 10 l/min	VGR-C1
				3		0.4 ... 20 l/min	VGR-C2
				3		1 ... 50 l/min	VGR-C5
160	54	17.5	10	2	G $\frac{1}{2}$	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

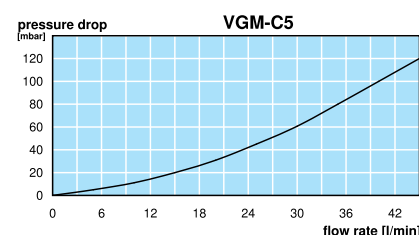
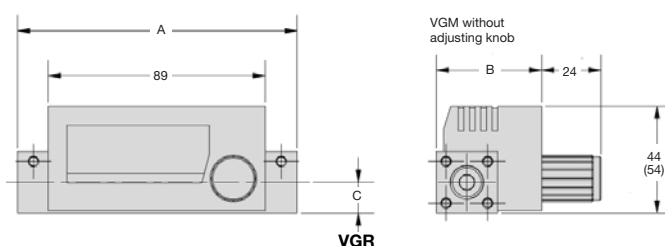


VGR
hand-operated mass flow meter
with display

Special options, add the appropriate letter order number

deviant volume flow	indicate on order			VG . -XFX	
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply			VG . . . G	
stainless steel body	electropolished throughout		for VGM	VGM- . . S	
			for VGR	VGR- . . S	
			for VGM-A1 to -C5	VGM- . . E	
			for VGR-A1 to -C5	VGR- . . E	
EPDM elastomer				VG . . . 2	
24 V DC supply	cable attached on the device, length 3 m			VG . . . T	
panel mounting	cut-out 48 x 96 mm, protection class IP65 in the front			VG . . . H	
0.1% accuracy				VG . . . 05	
nitrogen N ₂ :	07	carbon dioxide CO ₂ :	03	argon Ar:	VG . . . 13
helium He:	09	hydrogen H ₂ :	11	methane CH ₄ :	VG . . . 17
oxygen O ₂ :	15	propane C ₃ H ₈ :	16	nitrous oxide N ₂ O:	VG . - D . .
gases	see above			for G½	

Specific gas calibration			
gas species			max. l/min
nitrogen	07	N ₂	450
oxygen	15	O ₂	450
argon	09	Ar	300
helium	05	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



Order example:
VGM-A1
China website: www.duray-control.cn