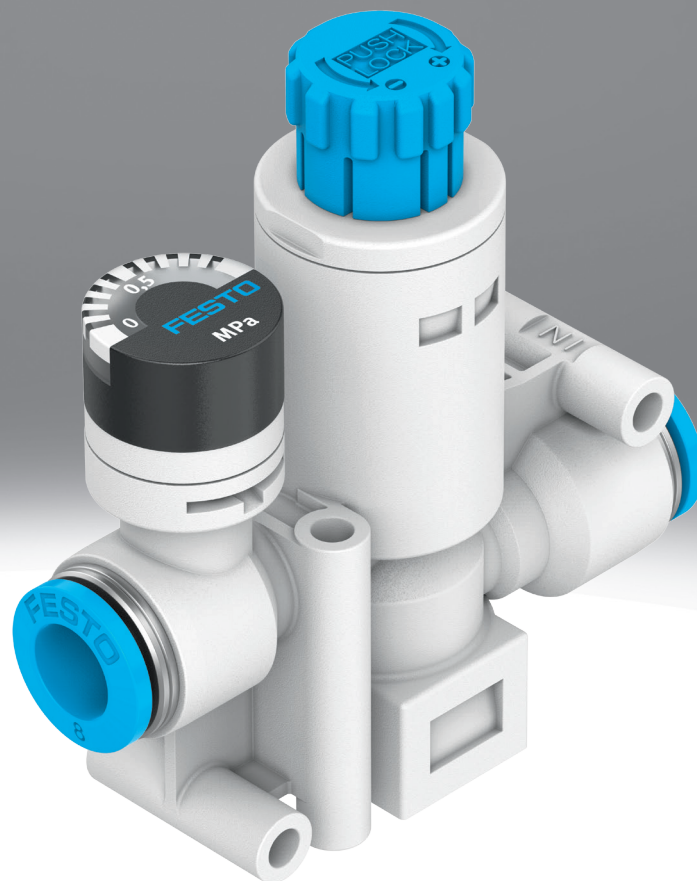


Pressure regulator, metric VRPA

FESTO



Characteristics

At a glance

- Regulates the operating pressure independently of the fluctuating input pressure
- With secondary exhaust and with return flow function
- Piston regulator with through pressure supply
- Increased energy efficiency thanks to motion-specific pressure adjustment
- Directly actuated
- With or without pressure gauge
- Connections: push-in connector at both ends, thread/push-in connector

Diagrams

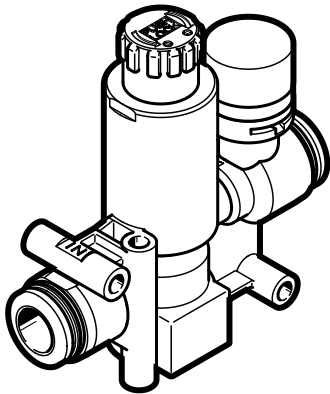
Further information → [vrpa](#)



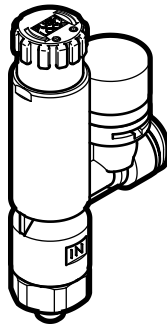
The diagrams shown in this document are also available online. These can be used to display precise values.

Design

[C] Inline



[L] L-shape



Type code

001	Series
VRPA	Pressure regulator

002	Design
C	Inline
L	L-shape

003	Pressure indication
	Without pressure gauge
M	With pressure gauge

004	Pneumatic connection 1
M5	M5
Q4	Push-in connector 4 mm
Q6	Push-in connector 6 mm
Q8	Push-in connector 8 mm
R14	R1/4
R18	R1/8

005	Pneumatic connection 2
E	Same size as connection 1
Q4	Push-in connector 4 mm
Q6	Push-in connector 6 mm
Q8	Push-in connector 8 mm

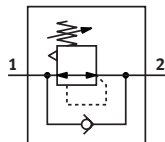
Datasheet

General technical data

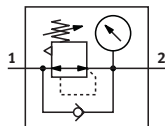
Pneumatic connection, port 1	M5	R1/8	R1/4	QS-4	QS-6	QS-8
Pneumatic connection, port 2	QS-4, QS-6	QS-4, QS-6, QS-8	QS-6, QS-8	QS-4	QS-6	QS-8
Controller function	Output pressure constant, With secondary venting, With return flow function					
Pressure regulation range	0.1 ... 0.8 MPa					
Pressure regulation range	1 ... 8 bar					
Pressure regulation range	14.5 ... 116 psi					
Type of actuation	Manual					
Mounting position	optional					
Adjustment component	Rotary knob with detent					
Pressure gauge (ANALOG) or Pressure display (DIGITAL) ¹⁾	With pressure gauge					
Type of mounting	Screw-in			With through-hole		
Type of seal on screwed plug	Sealing ring	Coating		-		
Rotatability	360°/no continuous swivelling permissible			-		
Nominal torque	0.8 Nm	-				
Tolerance for nominal tightening torque	± 20%	-				

1) For VRPA-CM-... and VRPA-LM-...

Function – without pressure gauge



Function – with pressure gauge



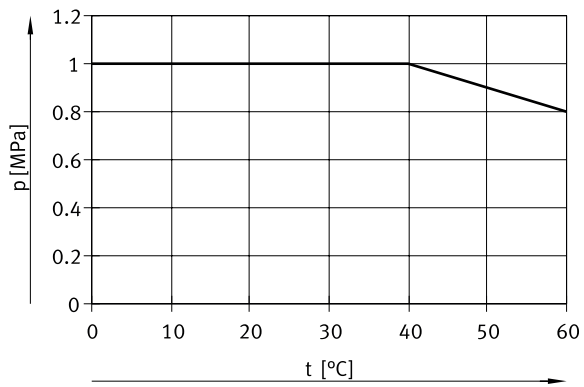
Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	0 ... 60°C

Materials

Material housing	PBT
Material screwed plug	Nickel-plated brass
Material thread seal	PTFE
Material static seals	NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B2-L
Cleanroom class	Class 4 according to ISO 14644-1

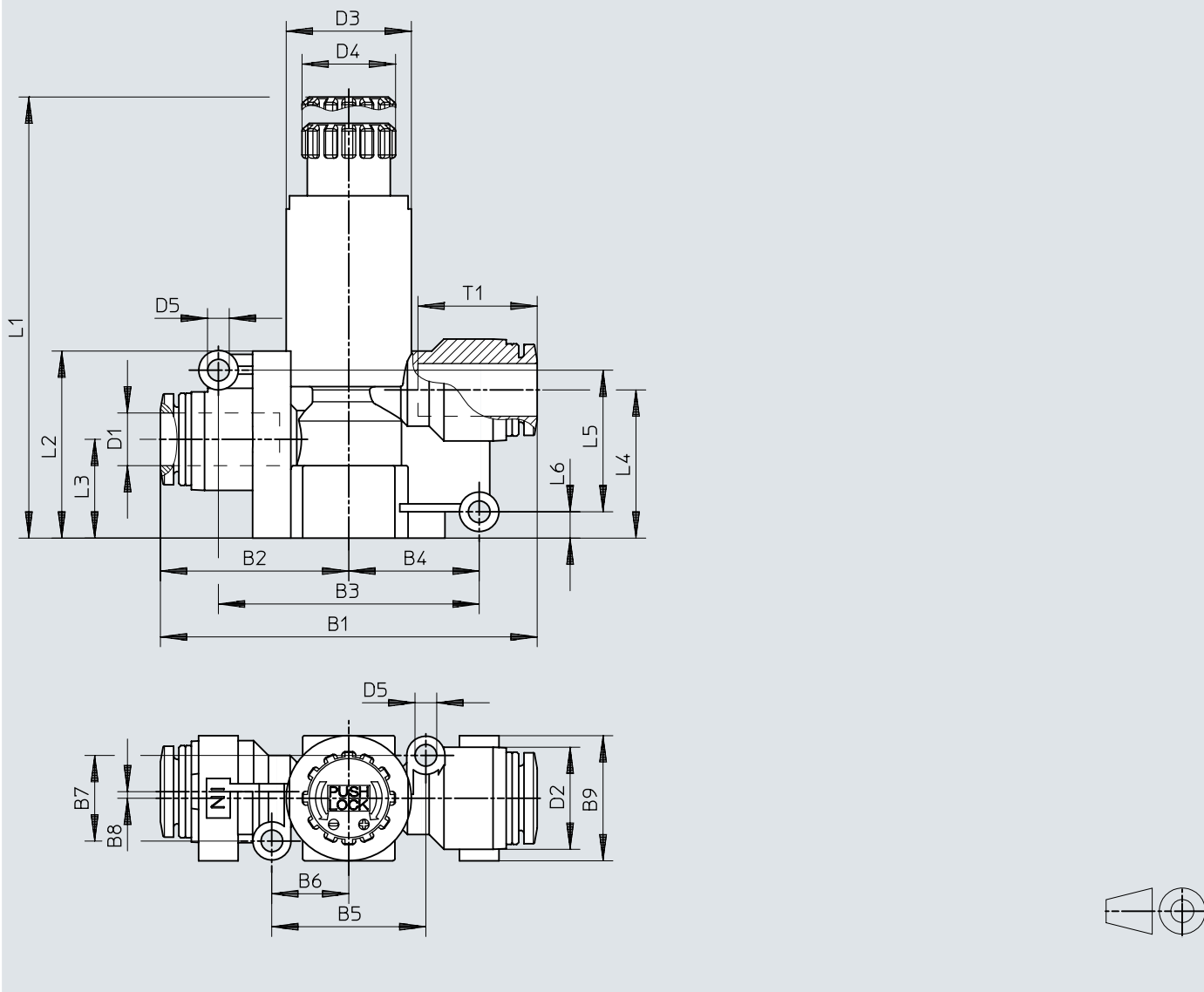
Datasheet

Operating pressure p as a function of temperature t 

Dimensions

Dimensions – Inline, VRPA-C, without pressure gauge

Download CAD data → www.festo.com



	B1	B2	B3	B4	B5	B6	B7	B8	B9	D1 ∅	D2 ∅
VRPA-C-Q4-E	44,4	22,2	30	15	20,6	10,3	9	1	15	4	11,5
VRPA-C-Q6-E	44,6	22,3	30	15	20,6	10,3	9	1	15	6	11,5
VRPA-C-Q8-E	57,2	28,6	39,6	19,8	23,4	11,7	13	1	19	8	15,5

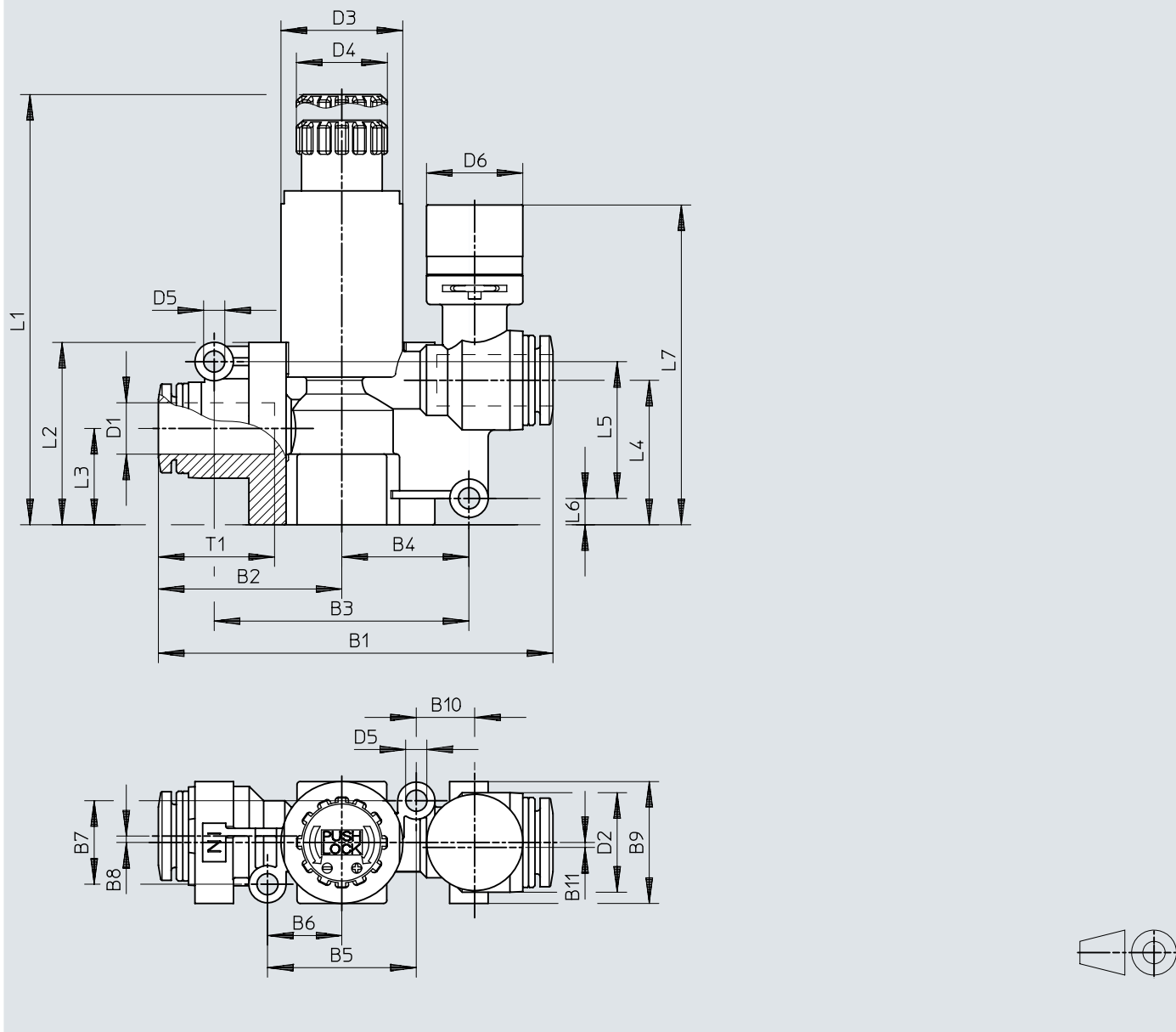
	D3 ∅	D4 ∅	D5 ∅	L1		L2	L3	L4	L5	L6	T1
				1)	2)						
VRPA-C-Q4-E	15	14,2	3,3	61,6	58,9	24,5	13	18,8	17	4,2	11,6
VRPA-C-Q6-E	15	14,2	3,3	61,6	58,9	24,5	13	18,8	17	4,2	11,9
VRPA-C-Q8-E	19	14,2	3,3	65,7	63	28,4	15	22,5	21,5	4	18,1

1) Unlocked
2) locked

Dimensions

Dimensions – In-line, VRPA-CM, with pressure gauge

Download CAD data → www.festo.com



	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	D1 ∅	D2 ∅
VRPA-CM-Q4-E	53,4	22,2	30	15	20,2	10,1	9	1	15	10,2	1	4	11,5
VRPA-CM-Q6-E	53,6	22,3	30	15	20,2	10,1	9	1	15	10,2	1	6	11,5
VRPA-CM-Q8-E	61,5	28,6	39,7	19,9	23,2	11,6	13	1	19	9,1	0	8	15,5

	D3 ∅	D4 ∅	D5 ∅	D6 ∅	L1		L2	L3	L4	L5	L6	L7	T1
					1)	2)							
VRPA-CM-Q4-E	15	14,2	3,3	15	61,6	58,9	24,5	13	18,8	17	4,2	43,3	11,6
VRPA-CM-Q6-E	15	14,2	3,3	15	61,6	58,9	24,5	13	18,8	17	4,2	43,3	11,9
VRPA-CM-Q8-E	19	14,2	3,3	15	65,7	63	28,4	15	22,5	21,3	4,1	49,8	18,1

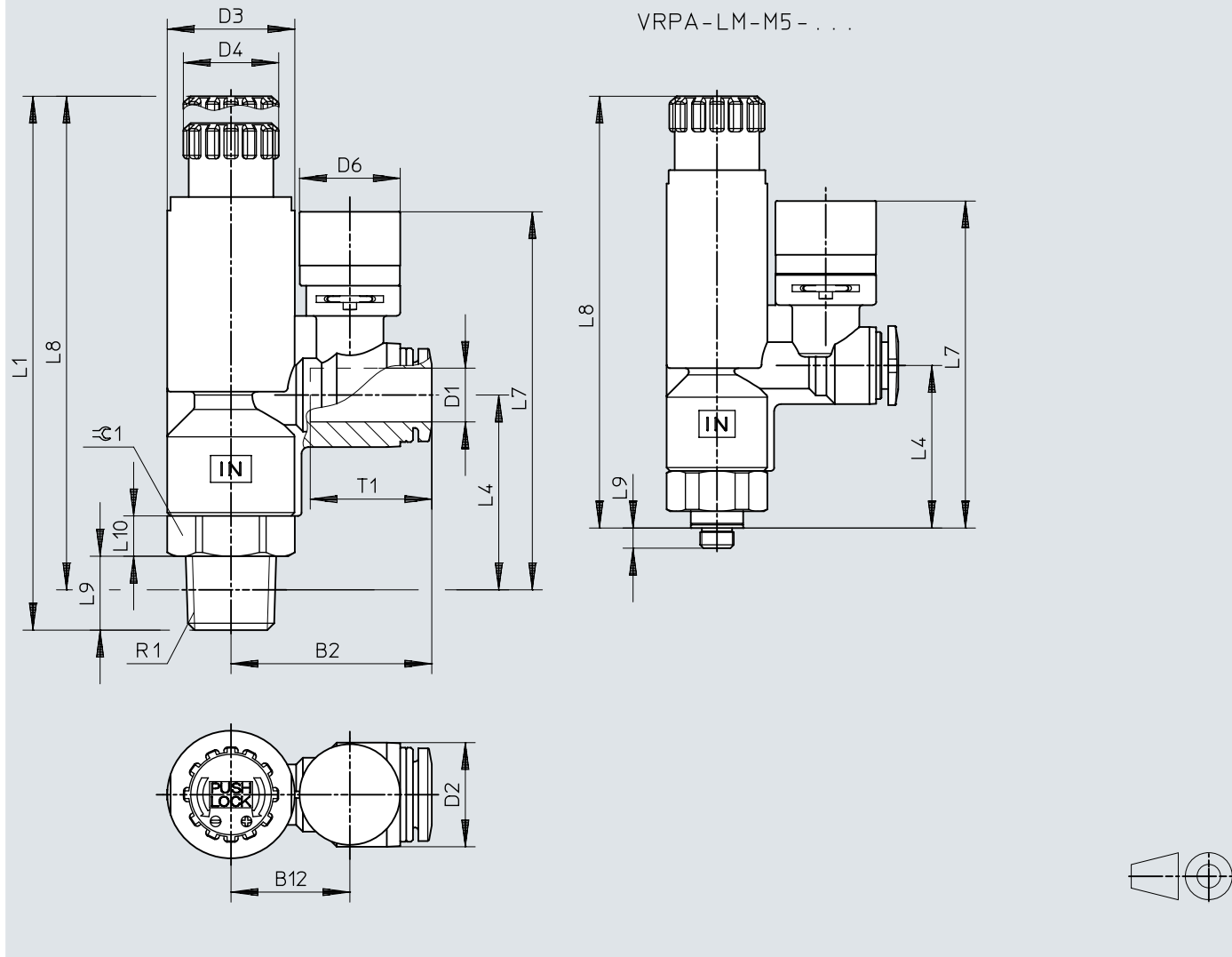
1) Unlocked

2) locked

Dimensions

Dimensions – L-shape, VRPA-LM, with pressure gauge

Download CAD data → www.festo.com



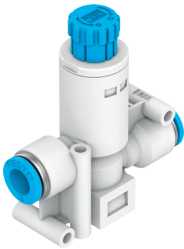
	B2	B12	D1 ø	D2 ø	D3 ø	D4 ø	D6 ø
VRPA-LM-M5-Q4	26,9	16,2	4	11,5	15	14,2	15
VRPA-LM-M5-Q6	27	16,2	6	11,5	15	14,2	15
VRPA-LM-R18-Q4	26,9	16,2	4	11,5	15	14,2	15
VRPA-LM-R18-Q6	27	16,2	6	11,5	15	14,2	15
VRPA-LM-R18-Q8	28,4	16,2	8	15,5	15	14,2	15
VRPA-LM-R14-Q6	30	17,7	6	15,5	19	14,2	15
VRPA-LM-R14-Q8	29,9	17,7	8	15,5	19	14,2	15

	L1		L4	L7	L8		L9	L10	R1	T1	≈ 1
	1)	2)			1)	2)					
VRPA-LM-M5-Q4	70	67,3	24,2	48,7	66,8	64,3	3	6	M5x0,8	11,6	14
VRPA-LM-M5-Q6	70	67,3	24,2	48,7	66,8	64,3	3	6	M5x0,8	11,9	14
VRPA-LM-R18-Q4	71,5	68,8	24,7	49,2	67,3	64,8	8	5	R1/8	11,6	14
VRPA-LM-R18-Q6	71,5	68,8	24,7	49,2	67,3	64,8	8	5	R1/8	11,9	14
VRPA-LM-R18-Q8	71,5	68,8	24,7	52	67,3	64,8	8	5	R1/8	18,1	14
VRPA-LM-R14-Q6	78,2	75,5	29	56,3	72	69,5	11	6	R1/4	17	17
VRPA-LM-R14-Q8	78,2	75,5	29	56,3	72	69,5	11	6	R1/4	18,1	17

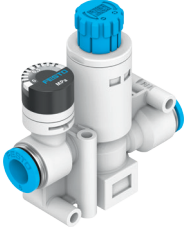
- 1) Unlocked
- 2) locked

Ordering data


Ordering data – inline without pressure gauge

	Pneumatic connection, port 1	Pneumatic connection, port 2	Standard nominal flow rate	Product weight	Part no.	Type
	QS-4	QS-4	80 l/min	19 g	8086000	VRPA-C-Q4-E
	QS-6	QS-6	90 l/min	20 g	8086001	VRPA-C-Q6-E
	QS-8	QS-8	130 l/min	33 g	8086002	VRPA-C-Q8-E

Ordering data – inline with pressure gauge

	Pneumatic connection, port 1	Pneumatic connection, port 2	Standard nominal flow rate	Product weight	Part no.	Type
	QS-4	QS-4	80 l/min	23 g	8086003	VRPA-CM-Q4-E
	QS-6	QS-6	90 l/min		8086004	VRPA-CM-Q6-E
	QS-8	QS-8	125 l/min	36 g	8086005	VRPA-CM-Q8-E

Ordering data – L-shape with pressure gauge

	Pneumatic connection, port 1	Pneumatic connection, port 2	Standard nominal flow rate	Product weight	Part no.	Type
	M5	QS-4	80 l/min	29 g	8086007	VRPA-LM-M5-Q4
		QS-6	90 l/min		8086008	VRPA-LM-M5-Q6
	R1/8	QS-4		31 g	8086009	VRPA-LM-R18-Q4
		QS-6	100 l/min		8086010	VRPA-LM-R18-Q6
		QS-8	110 l/min		8086011	VRPA-LM-R18-Q8
	R1/4	QS-6	115 l/min	49 g	8086012	VRPA-LM-R14-Q6
		QS-8	130 l/min		8086013	VRPA-LM-R14-Q8