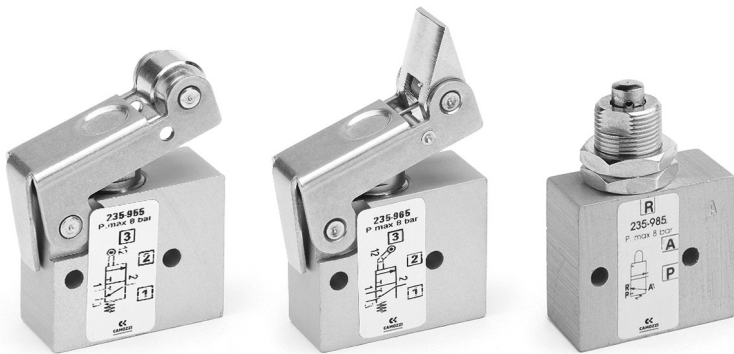


Series 2 mechanically operated minivalves

3/2-way
Ports M5, cartridge $\varnothing 4$

SERIES 2 MECHANICALLY OPERATED MINIVALVES



Series 2 mechanically operated miniature valves, 3/2-way normally closed, are available with M5 threaded ports or with an integrated super-rapid fitting for $\varnothing 4$ mm tubes. The devices are actuated by a plunger, roller/lever or a unidirectional lever.

GENERAL DATA

Construction	poppet type
Valve group	3-way/2-position
Materials	aluminium body, brass plunger, NBR seals
Mounting	by means of screws in the through-holes of the valve body
Ports	M5, $\varnothing 4$ mm cartridge
Room temperature	$0^{\circ}\text{C} \div 60^{\circ}\text{C}$
Fluid temperature	$0^{\circ}\text{C} \div 50^{\circ}\text{C}$
Operating pressure	2 bar \div 10 bar
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

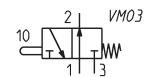
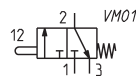
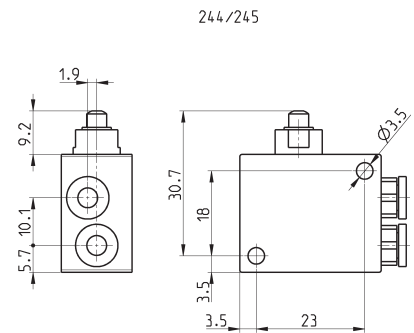
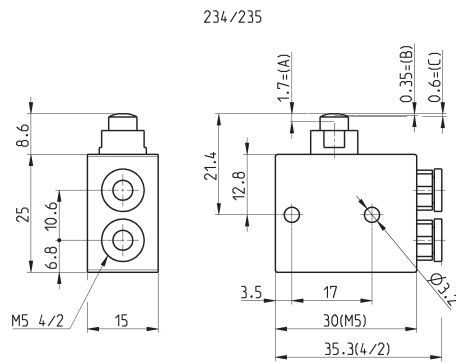
2	3	4	-	94	5
2	SERIES				
3	FUNCTION 3 = 3/2-way NC 4 = 3/2-way NO				
4	PORTS 4 = cartridge \varnothing 4mm 5 = M5				
94	ACTUATION 94 = plunger 95 = lever/roller 96 = unidirectional lever 98 = plunger, panel mounting				
5	RESETTING 5 = spring return				

SERIES 2 MECHANICALLY OPERATED MINIVALVES

Minivalves with plunger



DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke

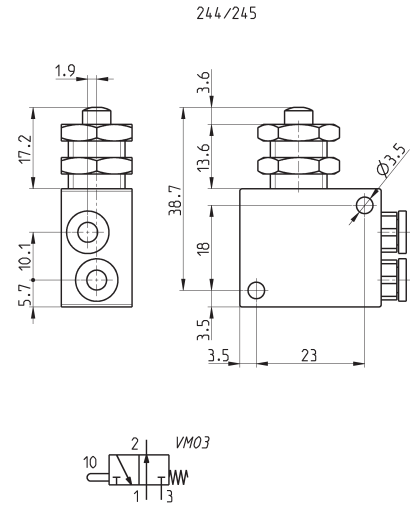
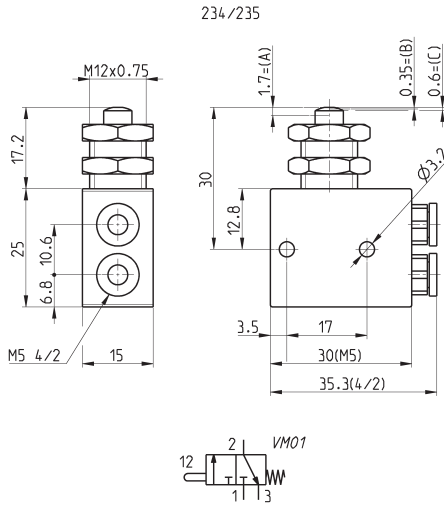


Mod.	Operating pressure (bar)	Flow Qn (NI/min)	Actuating force at 6 bar (N)	SYMBOL
234-945	2 ÷ 10	60	6	VM01
235-945	2 ÷ 10	60	6	VM01
244-945	2 ÷ 10	60	6	VM03
245-945	2 ÷ 10	60	6	VM03

Minivalves with plunger, panel mounting

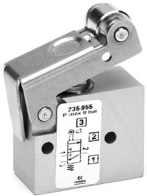


DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke

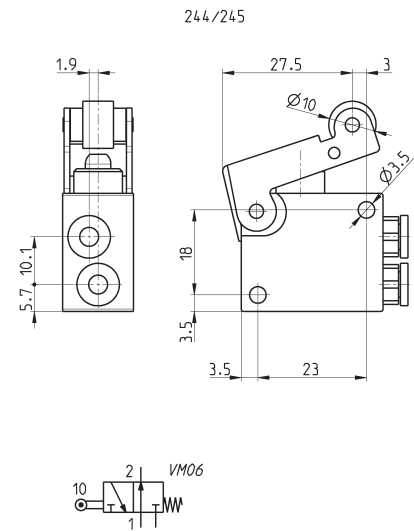
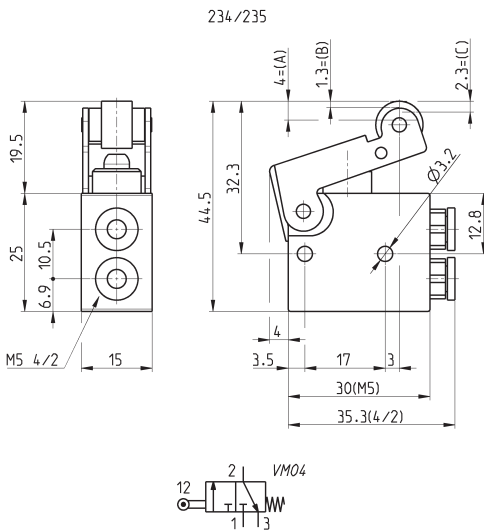


Mod.	Operating pressure (bar)	Flow Qn (NI/min)	Actuating force at 6 bar (N)	SYMBOL
234-985	2 ÷ 10	60	6	VM01
235-985	2 ÷ 10	60	6	VM01
244-985	2 ÷ 10	60	6	VM03
245-985	2 ÷ 10	60	6	VM03

Minivalves with lever/roller

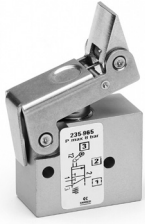


DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke

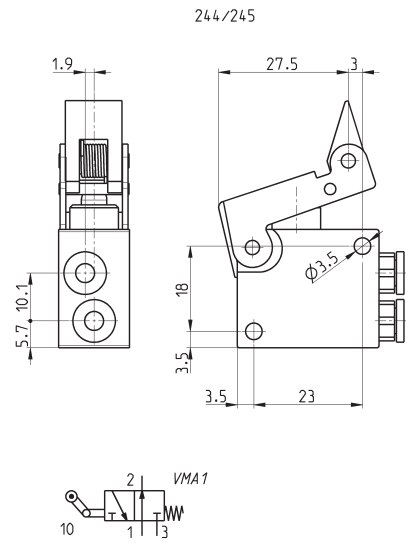
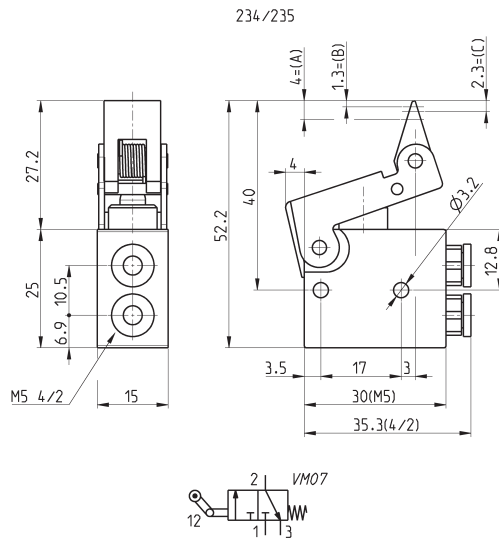


Mod.	Operating pressure (bar)	Flow Qn (NI/min)	Actuating force at 6 bar (N)	SYMBOL
234-955	2 ÷ 10	60	6	VM04
235-955	2 ÷ 10	60	6	VM04
244-955	2 ÷ 10	60	6	VM06
245-955	2 ÷ 10	60	6	VM06

Minivalves, unidirectional lever



DRAWING LEGEND
 A = total stroke
 B = pre-stroke
 C = effective stroke



Mod.	Operating pressure (bar)	Flow Qn (NI/min)	Actuating force at 6 bar (N)	SYMBOL
234-965	2 ÷ 10	60	6	VM07
235-965	2 ÷ 10	60	6	VM07
244-965	2 ÷ 10	60	6	VMA1
245-965	2 ÷ 10	60	6	VMA1

Series 1 and 3 mechanically operated valves

Series 1: 3/2-way and 5/2-way, ports G1/8 and G1/4

Series 3: 3/2-way and 5/2-way, ports G1/8

SERIES 1 AND 3 MECHANICALLY OPERATED VALVES



These mechanically operated valves have been designed with three different types of actuation:

- plunger
- lever/roller
- unidirectional lever/roller

In each case, return is triggered by a mechanical spring.

3/2-way monostable valves Series 3 are normally closed in the rest position when pressure is supplied in 1 and are normally open when pressure is supplied on connection 3, the user port 2 remaining unchanged.

5/2-way valves Series 3 can be supplied via the ports 3 and 5 with two different pressures if a cylinder has to be operated using a delivery pressure which is different from the return pressure.

GENERAL DATA

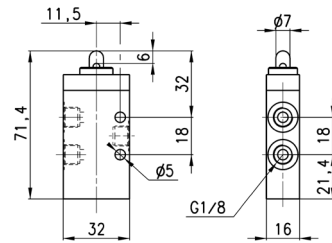
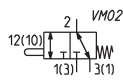
Construction	spool-type (Series 3), poppet-type (Series 1)
Valve group	3/2, 5/2 way/pos.
Materials	aluminium body, brass poppet, stainless steel spool, NBR seals
Ports	G1/8, G1/4
Ambient temperature	0°C + 60°C
Medium temperature	0°C + 50°C
Operating pressure	see models
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

3	3	8	-	94	5
3	SERIES: 1 3				
3	FUNCTION: 3 = 3/2 ways NC 4 = 3/2 ways NO (only Series 1) 5 = 5/2 ways				
8	PORTS: 8 = G1/8 4 = G1/4 (only Series 1)				
94	ACTUATION: 94 = plunger 95 = lever/roller 96 = unidirectional roller				
5	RESETTING: 5 = spring return				

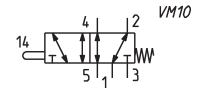
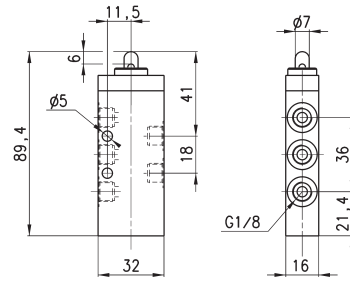
SERIES 1 AND 3 MECHANICALLY OPERATED VALVES

Valve Mod. 338-945



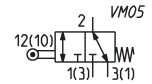
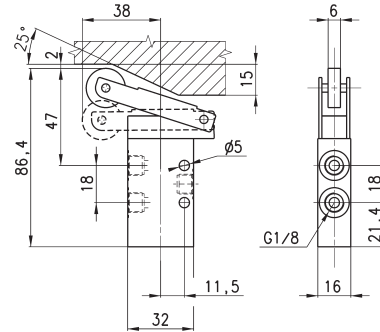
Mod.	Operating pressure (bar)	Flow (l/min)	Actuating force (N)
338-945	-0.9 ÷ 10	700	32

Valve Mod. 358-945



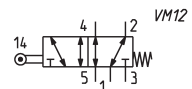
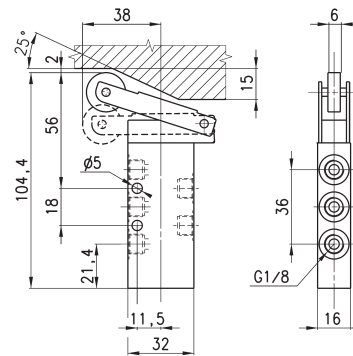
Mod.	Operating pressure (bar)	Flow (NL/min)	Actuating force (N)
358-945	-0.9 ÷ 10	700	35

Valve Mod. 338-955



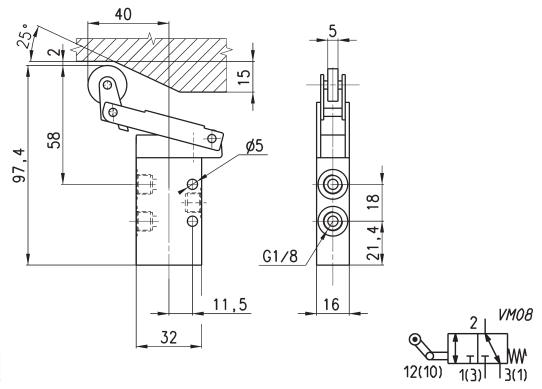
Mod.	Operating pressure (bar)	Flow (NL/min)	Actuating force (N)
338-955	-0.9 ÷ 10	700	15

Valve Mod. 358-955



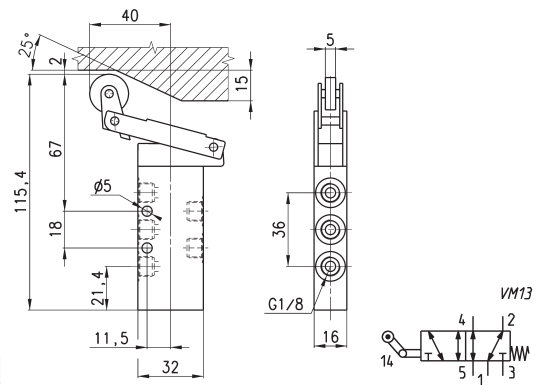
Mod.	Operating pressure (bar)	Flow (NL/min)	Actuating force (N)
358-955	-0.9 ÷ 10	700	17

Valve Mod. 338-965



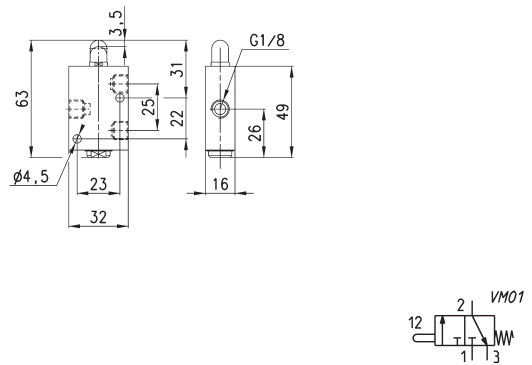
Mod.	Operating pressure (bar)	Flow (NL/min)	Actuating force (N)
338-965	-0.9 ÷ 10	700	15

Valve Mod. 358-965



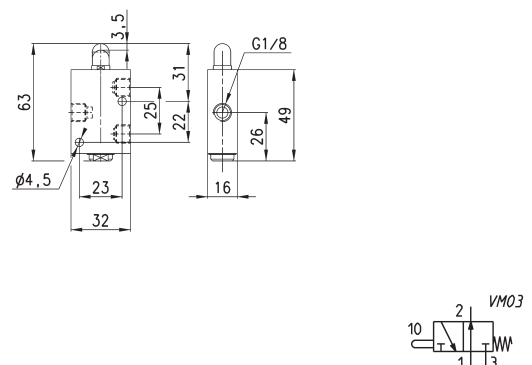
Mod.	Operating pressure (bar)	Flow (NL/min)	Actuating force (N)
358-965	-0.9 ÷ 10	700	16

Valve Mod. 138-945



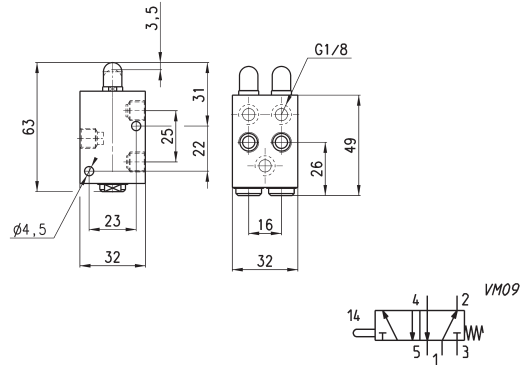
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
138-945	0 ÷ 10	500	70

Valve Mod. 148-945



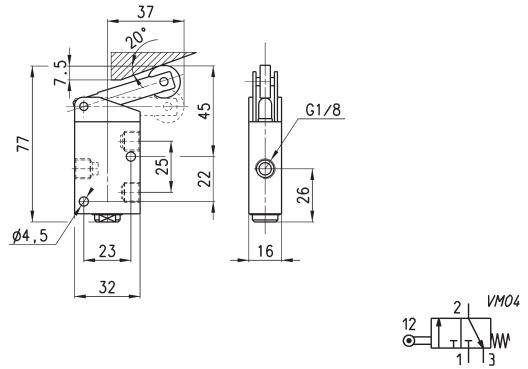
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
148-945	0 ÷ 10	500	70

Valve Mod. 158-945



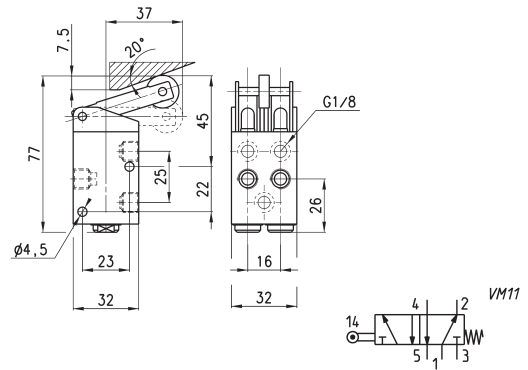
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
158-945	0 ÷ 10	500	120

Valve Mod. 138-955



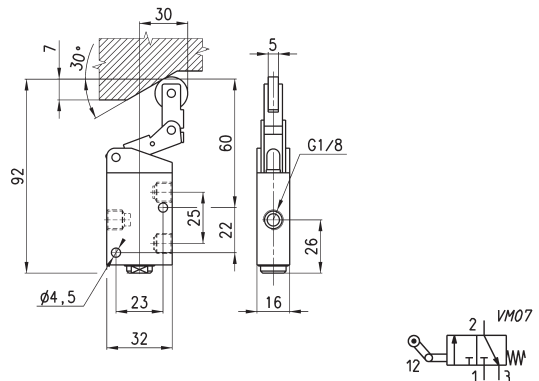
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
138-955	0 ÷ 10	500	36

Valve Mod. 158-955



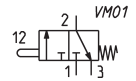
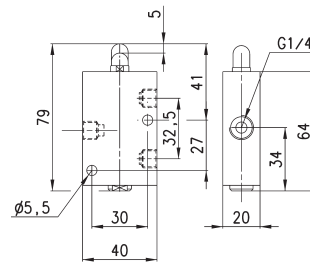
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
158-955	0 ÷ 10	500	92

Valve Mod. 138-965



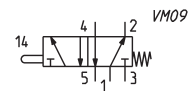
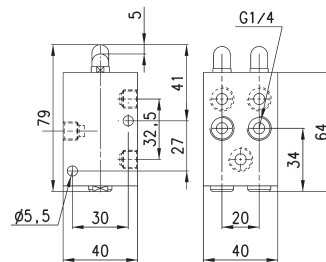
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
138-965	0 ÷ 10	500	41

Valve Mod. 134-945



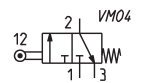
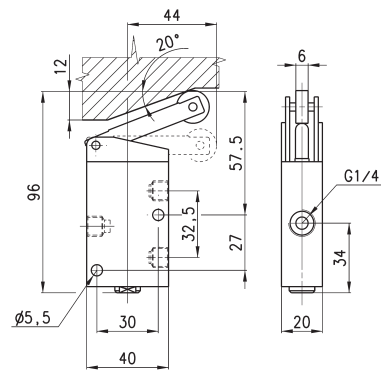
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
134-945	0 ÷ 10	1250	64

Valve Mod. 154-945



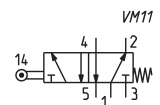
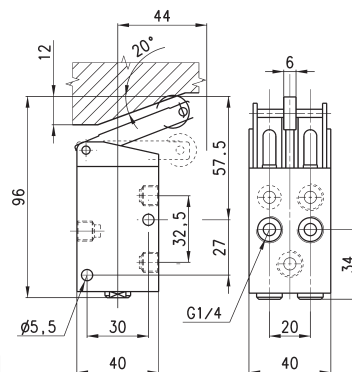
Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
154-945	0 ÷ 10	1250	147

Valve Mod. 134-955



Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
134-955	0 ÷ 10	1250	41

Valve Mod. 154-955



Mod.	Operating pressure (bar)	Flow rate (NL/min)	Actuating force at 6 bar (N)
154-955	0 ÷ 10	1250	110