

## Series 1, 3 and 4

Cv = .52 — 1.3

## 1/8" and 1/4" Ported Manually Operated Valves

3-way/2-position, 5-way/2-position and 5-way/3-position  
Ports 1/8" and 1/4" NPTF

The Series 1 manual valves (1/8" & 1/4", 3-way/2-position and 5-way/2-position) and the Series 3 & 4 manual valves (1/8" & 1/4", 3-way/2-position, 5-way/2-position and 5-way/3-position) are available with actuators designed to satisfy different needs. For series 3 & 4, the 3-way/2-position valves are normally closed when P is the inlet; they can also be normally open when R is the inlet. They can be operated with vacuum down to -.9 bar (28" Hg). Additionally, the series 3 & 4 valves can be supplied with 2 different pressures into ports 3 and 5 if a cylinder requires different extend and retract forces. The series 1 valves offer a more rugged, compact design with steel operator interfaces.



## TECHNICAL SPECIFICATIONS

Valve group	3-way/2-position, 5-way/2-position, 5-way/3position
Construction	Spool type Series 3 and 4, Poppet type Series 1
Mounting	Mounting holes in valve body
Materials	Anodized aluminum body, Stainless steel spool, Buna-N seals, Brass Poppet (Series 1)
Threaded port sizes	1/8" and 1/4" NPTF
Installation	Manifold, or single panel mount
Operating temperature	32°F - 175°F, (dry air necessary down to -4° F)
Fluid	Filtered air (25 micron or less recommended)
Lubricant	Not required; otherwise, only oil compatible with Buna-N, (3° - 10° E) (ISOVG32 grade; 32 centistokes)

## PNEUMATIC DATA

Operating pressure	0 - 10 bar, (0 - 145 psi) (down to -.9 bar vacuum; 28" Hg with series 3)
Nominal pressure	6 bar, (87 psi)
Nominal flow	*Qn Series 3: 1/8" = 700 NL/min. (24.7 SCFM) Series 1: 1/8" = 500 NL/min. (17.65 SCFM), 1/4"=1250 NL/min. (44.14 SCFM)
	*Qn Series 4: 1/4"=1250 NL/min. (44.14 SCFM)
Nominal diameter	1/8" = 5 mm, 1/4" = 7.5 mm
Cv Rating	Series 3: 1/8" = 0.73, Series 4: 1/4" = 1.3 Series 1: 1/8" = 0.52, 1/4" = 1.3

\*Qn flowrate (SCFM) determined with a supply pressure of 6 bar (87 psi), and with a pressure drop of 1 bar (14.5 psi).

\*\* Soft-seal repair kits are available on request.

\*\*\*Dimensions are in millimeters

## CODING OF MINIVALVES

3	3	8	-	900	TF
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<b>3</b>	SERIES: 1 3 4
<b>5</b>	FUNCTION: 3 = 3/2-way NC 5 = 5/2-way 6 = 5/3-way CC 7 = 5/3-way CO
<b>8</b>	PORTS: 8 = 1/8 4 = 1/4
<b>900</b>	RESETTING: 895 = pushbutton, monostable, black 896 = pushbutton, monostable, green 897 = pushbutton, monostable, red 900 = lever, bistable 905 = lever, monostable 910 = knob, bistable 915 = knob, monostable 935 = digital monostable 975 = palm-switch, monostable, black 976 = palm-switch, monostable, green 977 = palm-switch, monostable, red 990 = switch, bistable
<b>TF</b>	TF = NPTF ports blank = BSP ports

## Manually operated valves



Mod. 138-935TF

Mod. 138-900TF

Mod. 158-900TF

Mod. 338-990TF

Mod. 358-990TF

Mod. 338-895TF  
Mod. 338-896TF  
Mod. 338-897TFMod. 358-895TF  
Mod. 358-896TF  
Mod. 358-897TFMod. 338-975TF  
Mod. 338-976TF  
Mod. 338-977TFMod. 358-975TF  
Mod. 358-976TF  
Mod. 358-977TFMod. 338-910TF  
Mod. 338-915TFMod. 358-910 TF  
Mod. 358-915 TFMod. 338-900TF  
Mod. 338-905TFMod. 358-900TF  
Mod. 358-905TFMod. 368-900TF  
Mod. 368-905TFMod. 378-900TF  
Mod. 378-905TF

Mod. 134-935TF



Mod. 134-900TF

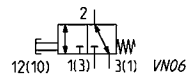
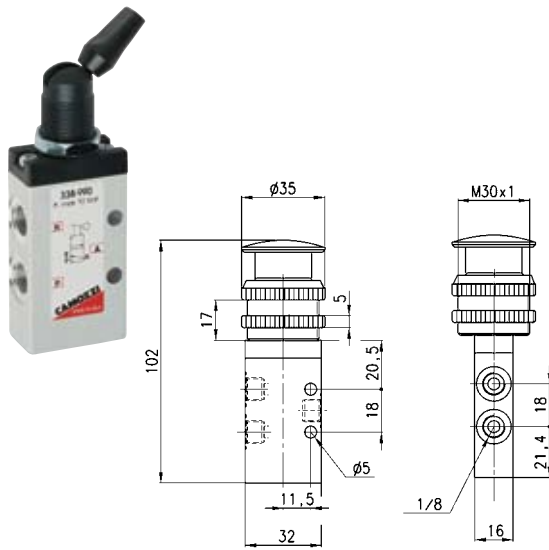
Mod. 154-900TF

Mod. 434-910TF  
Mod. 434-915TFMod. 454-910TF  
Mod. 454-915TFMod. 434-900TF  
Mod. 434-905TFMod. 454-900TF  
Mod. 454-905TFMod. 464-900TF  
Mod. 464-905TFMod. 474-900TF  
Mod. 474-905TF

Valves Mod. 338-990TF

Cv = .73

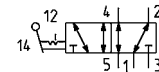
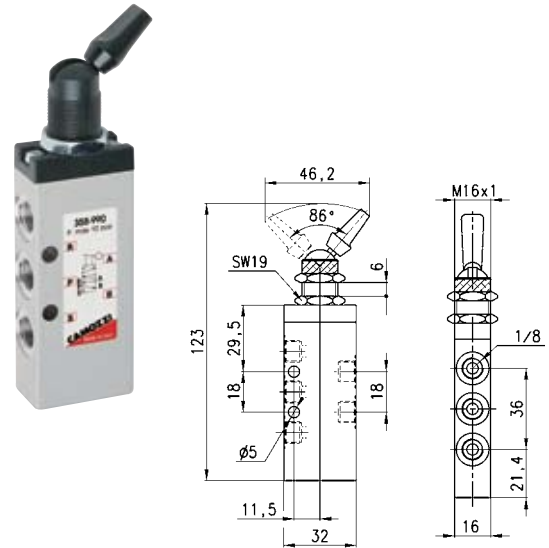
Actuation Force at 87 psi = 4.04 lbf



Valves Mod. 358-990TF

Cv = .73

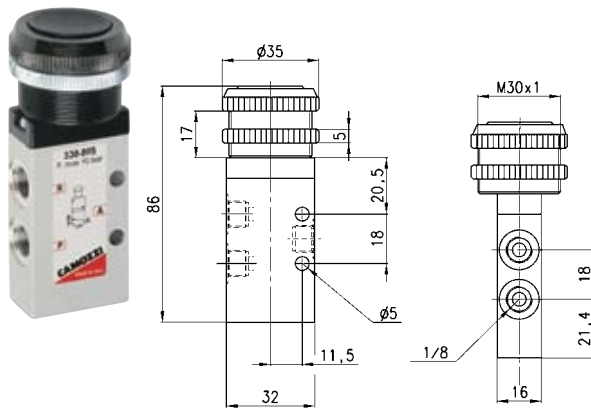
Actuation Force at 87 psi = 4.04 lbf



Valves Mod. 338-895TF

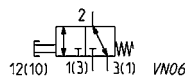
Cv = .73

Actuation Force at 87 psi = 7.9 lbf



Mod.	Button Color
<b>338-895TF</b>	Black
<b>338-896TF</b>	Green
<b>338-897TF</b>	Red

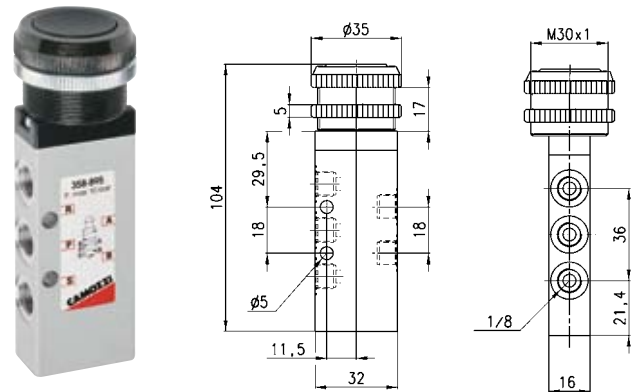
\*buttons are anodized aluminum



Valves Mod. 358-895TF

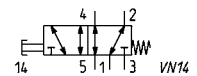
Cv = .73

Actuation Force at 87 psi = 7.9 lbf



Mod.	Button Color
<b>358-895TF</b>	Black
<b>358-896TF</b>	Green
<b>358-897TF</b>	Red

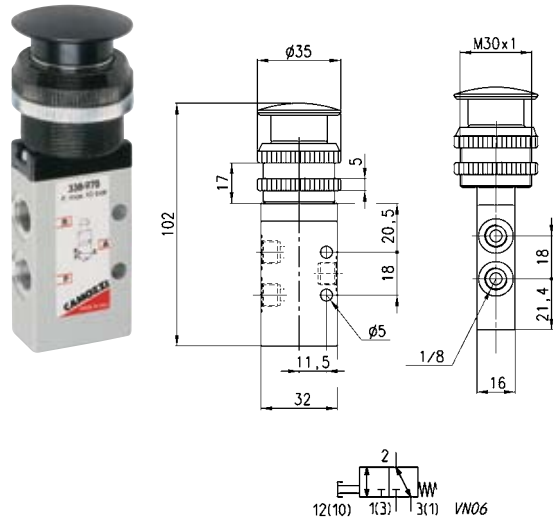
\*buttons are anodized aluminum



Valves Mod. 338-975TF

Cv = .73

Actuation Force at 87 psi = 7.9 lbf



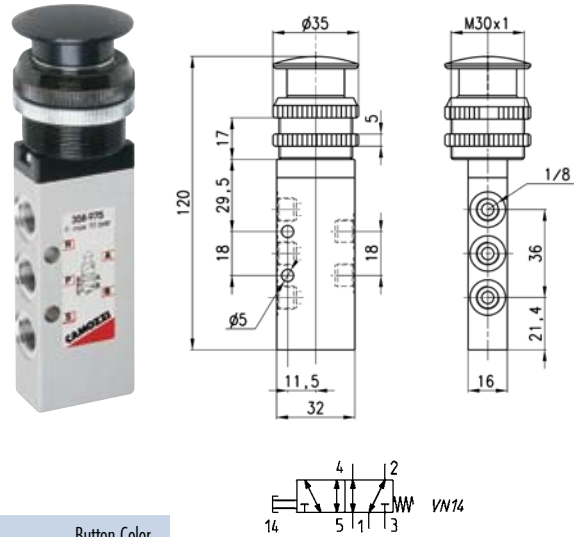
Mod.	Button Color
<b>338-975TF</b>	Black
<b>338-976TF</b>	Green
<b>338-977TF</b>	Red

\*buttons are anodized aluminum

Valves Mod. 358-975TF

Cv = .73

Actuation Force at 87 psi = 7.9 lbf



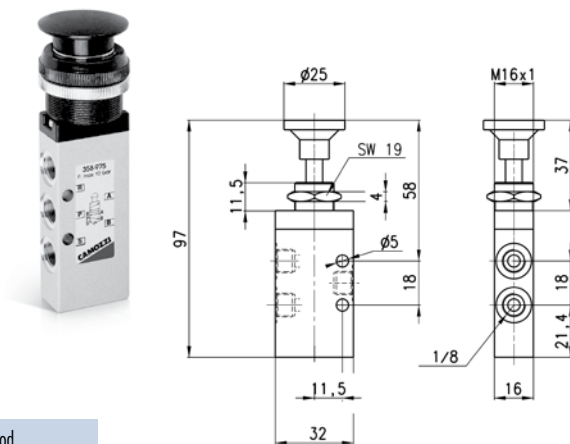
Mod.	Button Color
<b>358-975TF</b>	Black
<b>358-976TF</b>	Green
<b>358-977TF</b>	Red

\*buttons are anodized aluminum

Valves Mod. 338-910TF and Mod. 338-915TF

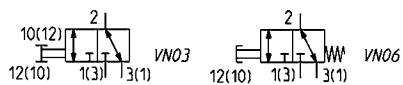
Cv = .73

338-910TF Actuation Force at 87 psi = 1.35 lbf  
338-915TF Actuation Force at 87 psi = 7.9 lbf



Mod.
<b>338-910TF</b>

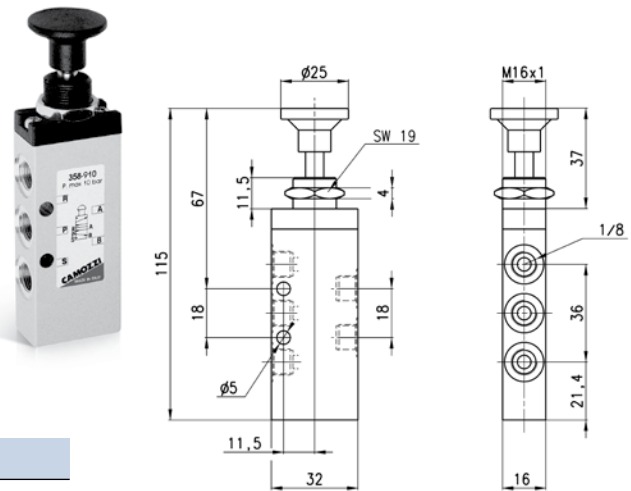
Mod.
<b>338-915TF</b>



Valves Mod. 358-910TF and Mod. 358-915TF

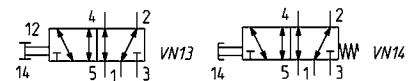
Cv = .73

358-910TF Actuation Force at 87 psi = 1.35 lbf  
358-915TF Actuation Force at 87 psi = 7.9 lbf



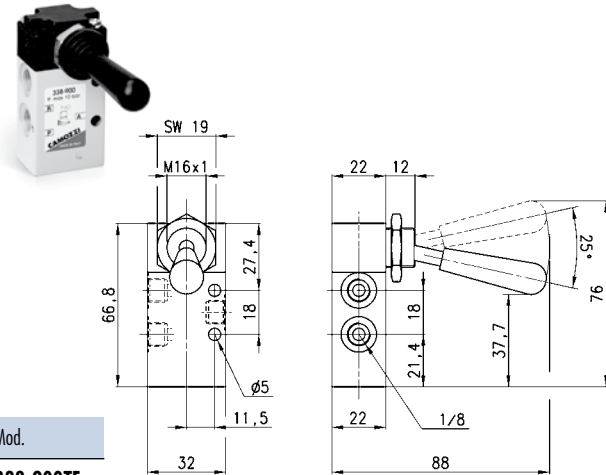
Mod.
<b>358-910TF</b>

Mod.
<b>358-915TF</b>



Valves Mod. 338-900TF and Mod. 338-905TF Cv = .73

338-900TF Actuation Force at 87 psi = 1.35 lbf  
 338-905TF Actuation Force at 87 psi = 7.9 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

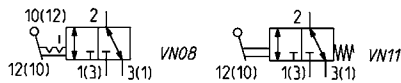


Mod.

**338-900TF**

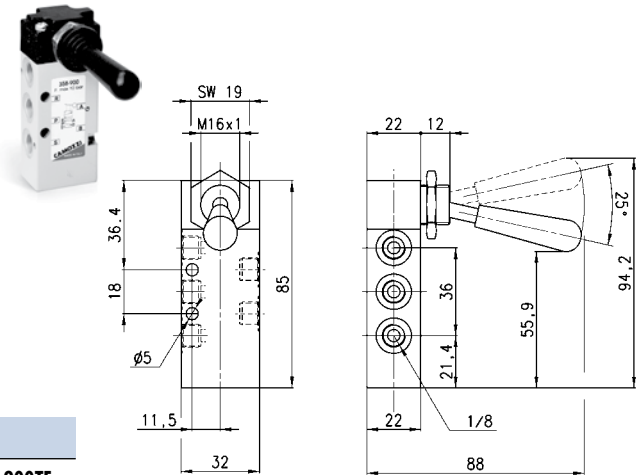
Mod.

**338-905TF**



Valves Mod. 358-900TF and Mod. 358-905TF Cv = .73

358-900TF Actuation Force at 87 psi = 1.35 lbf  
 358-905TF Actuation Force at 87 psi = 7.9 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

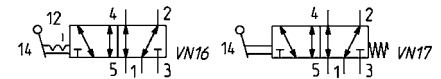


Mod.

**358-900TF**

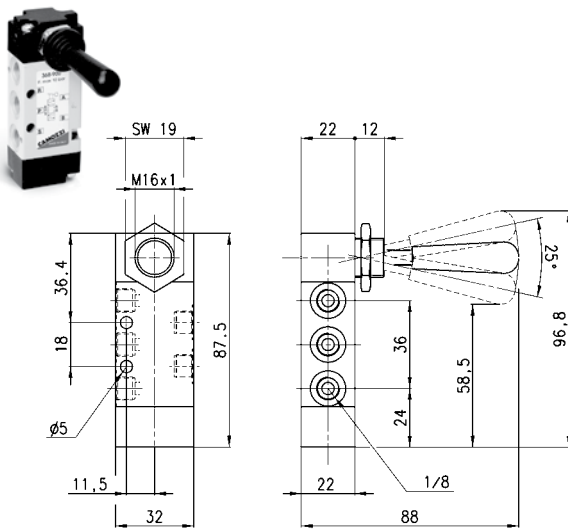
Mod.

**358-905TF**



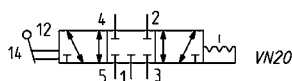
Valves Mod. 368-900TF Cv = .73

Actuation Force at 87 psi = 1.35 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface



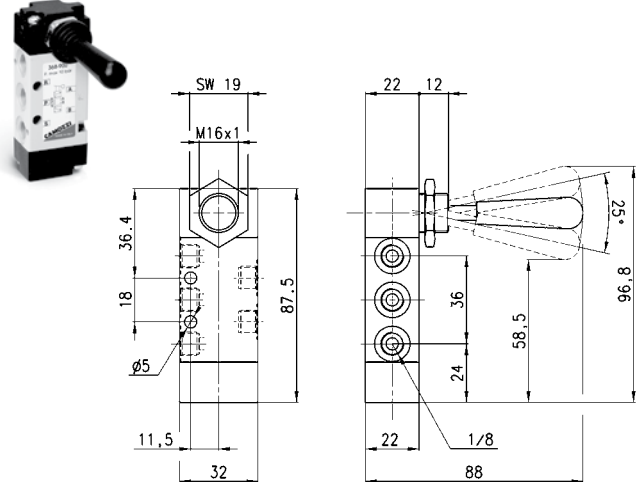
Mod.

**368-900TF**



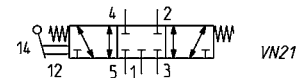
Valves Mod. 368-905TF Cv = .73

Actuation Force at 87 psi = 4.5 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface



Mod.

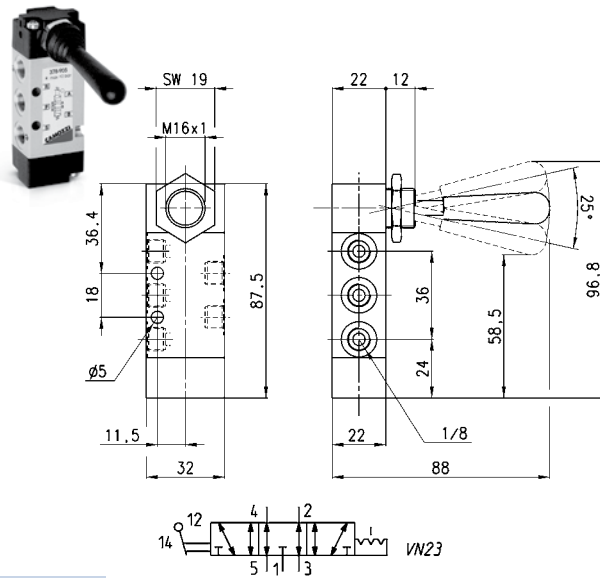
**368-905TF**



## Valves Mod. 378-900TF

Cv = .73

Actuation Force at 87 psi = 1.35 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface



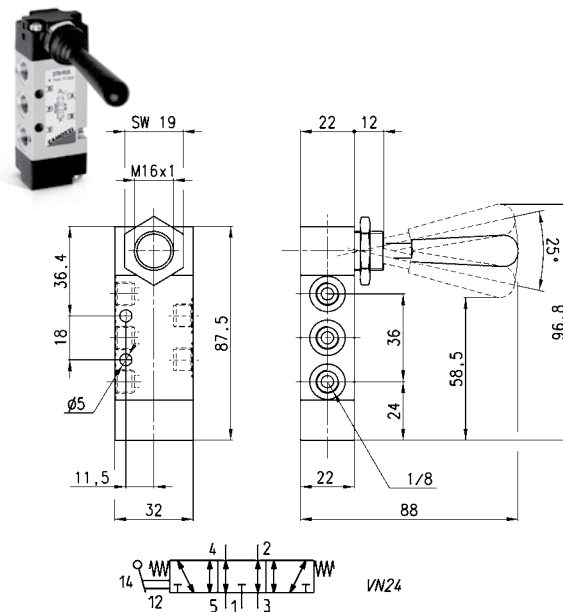
Mod.

**378-900TF**

## Valves Mod. 378-905TF

Cv = .73

Actuation Force at 87 psi = 4.5 lbf



Mod.

**378-905TF**

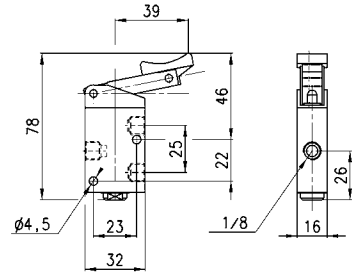
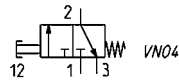
Valve Mod. 138-935TF

Cv = .52

Actuating force at 6 bar = 38N (8.5 lbf)  
 Operating pressure = 0 - 10 bar (0 - 145psi)  
 Flow rate = 500 NI/min. (17.6 SCFM)

Mod.

138-935TF



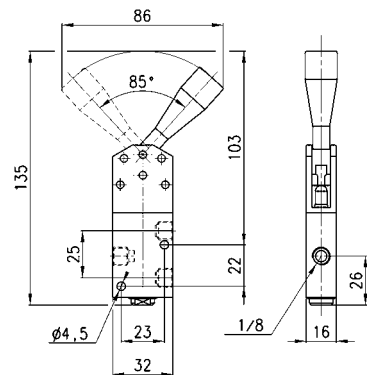
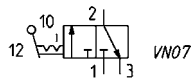
Valve Mod. 138-900TF

Cv = .52

Actuating force at 6 bar = 25N (5.6 lbf)  
 Operating pressure = 0 - 10 bar (0-145 psi)  
 Flow rate = 500 NI/min. (17.6 SCFM)

Mod.

138-900TF



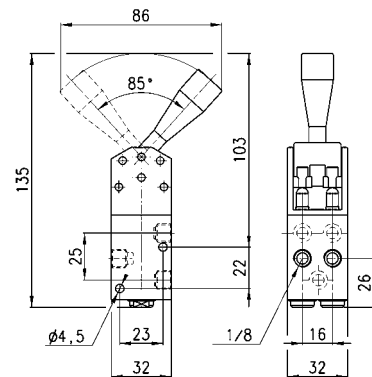
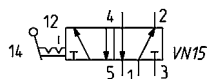
Valve Mod. 158-900TF

Cv = .52

Actuating force at 6 bar = 45N (10.1 lbf)  
 Operating pressure = 0 - 10 bar (0-145 psi)  
 Flow rate = 500 NI/min. (17.6 SCFM)

Mod.

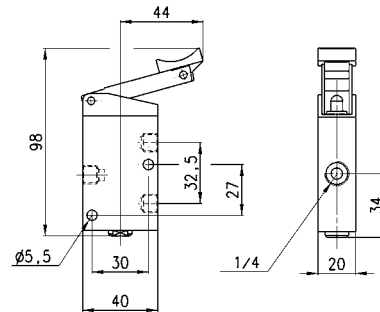
158-900TF



## Valve Mod. 134-195TF

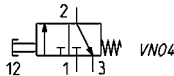
Cv = 1.3

Actuating force at 6 bar = 40N (9 lbf)  
 Operating pressure = 0 - 10 bar (0-145 psi)  
 Flow rate = 1250 NI/min. (44.1 SCFM)



Mod.

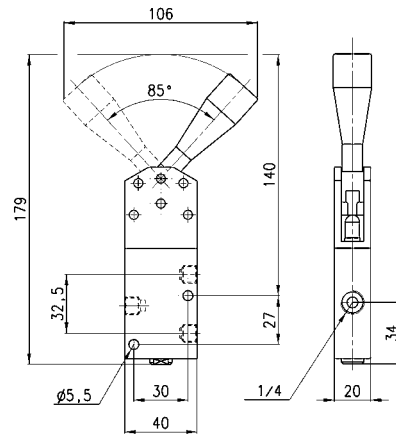
134-935TF



## Valve Mod. 134-900TF

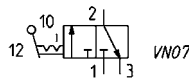
Cv = 1.3

Actuating force at 6 bar = 30N (6.7 lbf)  
 Operating pressure = 0 - 10 bar (0 - 145 psi)  
 Flow rate = 1250 NI/min. (44.1 SCFM)



Mod.

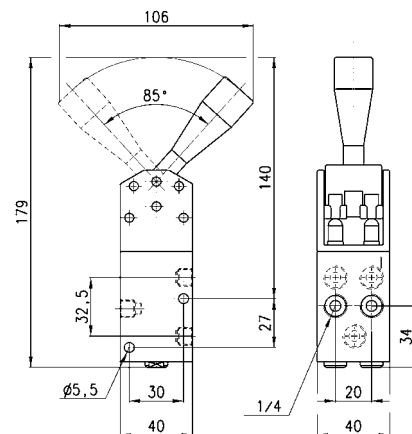
134-900TF



## Valve Mod. 154-900TF

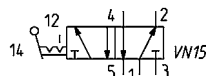
Cv = 1.3

Actuating force at 6 bar = 55N (12.3 lbf)  
 Operating pressure = 0 - 10 bar (0-145 psi)  
 Flow rate = 1250 NI/min. (44.1 SCFM)



Mod.

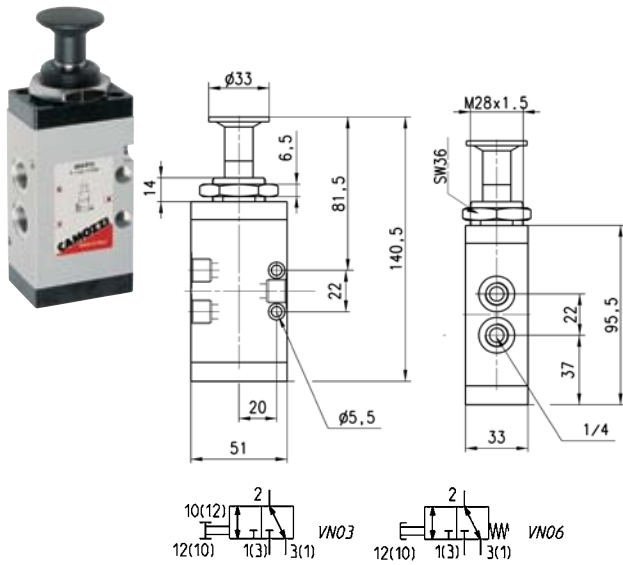
154-900TF





Valves Mod. 434-910TF and 434-915TF Cv = 1.3

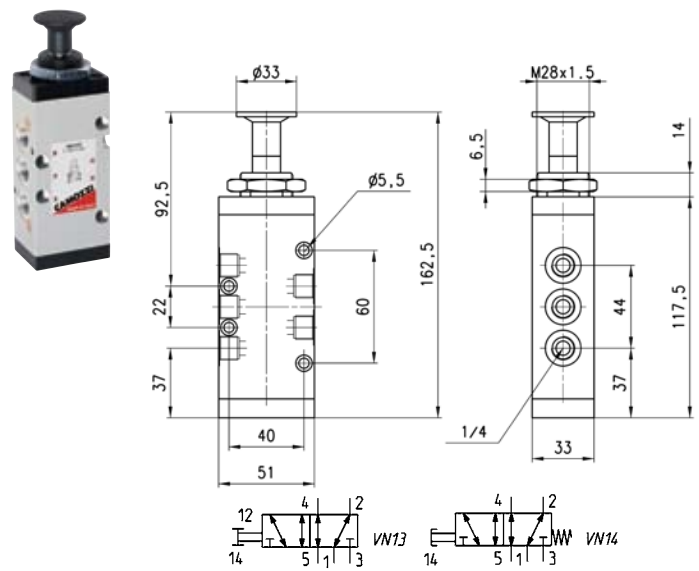
Mod. 434-910TF Actuation Force at 87 psi = 2.25 lbf  
 Mod. 434-915TF Actuation Force at 87 psi = 8.3 lbf



Mod.	Symbol
434-910TF	VN03
434-915TF	VN06

Valves Mod. 454-910TF and 454-915TF Cv = 1.3

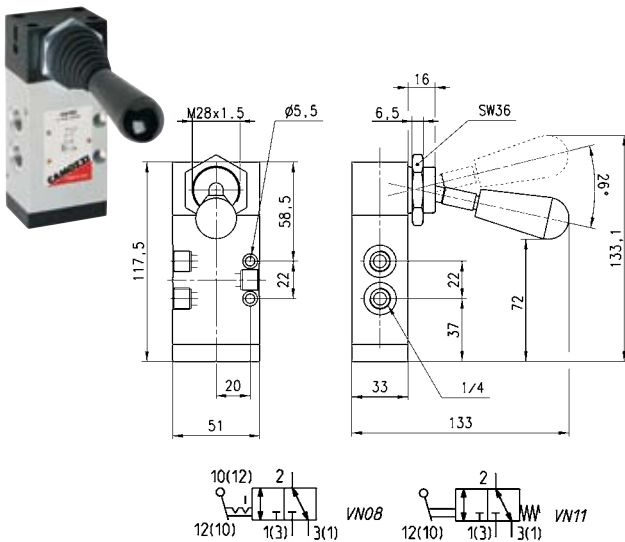
Mod. 454-910TF Actuation Force at 87 psi = 2.25 lbf  
 Mod. 454-915TF Actuation Force at 87 psi = 8.3 lbf



DIMENSIONS	
Mod.	Symbol
454-910TF	VN13
454-915TF	VN14

Valves Mod. 434-900TF and 434-905TF Cv = 1.3

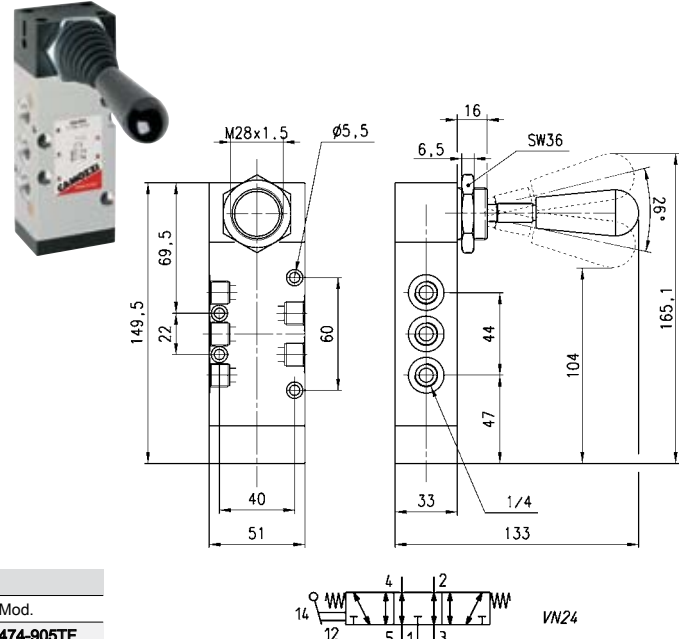
Mod. 434-900TF Actuation Force at 87 psi = 1.35 lbf  
 Mod. 434-905TF Actuation Force at 87 psi = 8.3 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface



Mod.	Symbol
434-900TF	VN08
434-905TF	VN11

Valves Mod. 454-900TF and 454-905TF Cv = 1.3

Mod. 454-900TF Actuation Force at 87 psi = 1.35 lbf  
 Mod. 454-905TF Actuation Force at 87 psi = 8.3 lbf  
 \*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface



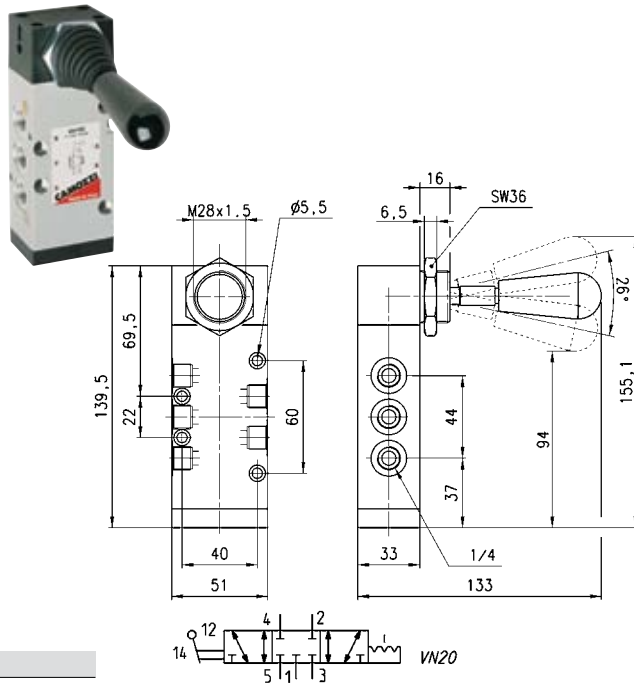
Mod.	Symbol
474-905TF	VN24

Valves Mod. 464-900TF

Cv = 1.3

Actuation Force at 87 psi = 1.35 lbf

\*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

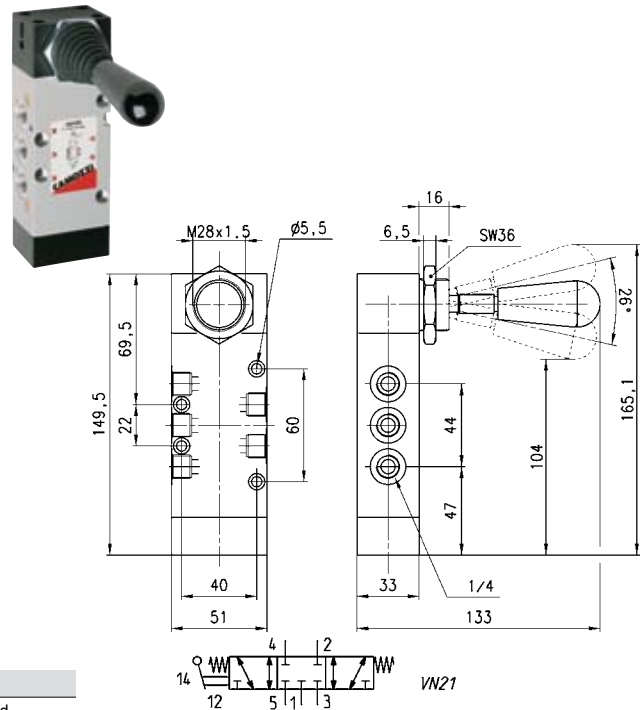


Mod.  
464-900TF

Valves Mod. 464-905TF

Cv = 1.3

Actuation Force at 87 psi = 2.25 lbf



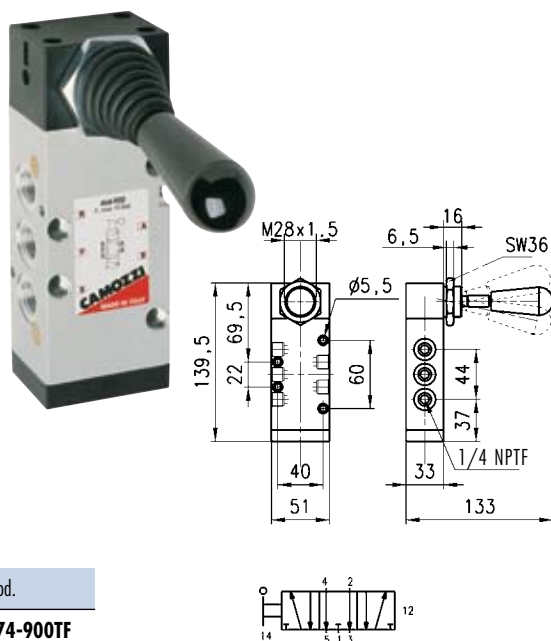
Mod.  
464-905TF

Valves Mod. 474-900TF

Cv = 1.3

Actuation Force at 87 psi = 1.35 lbf

\*Detent force can be adjusted by means of 5 spring-loaded screws on the side of handle interface

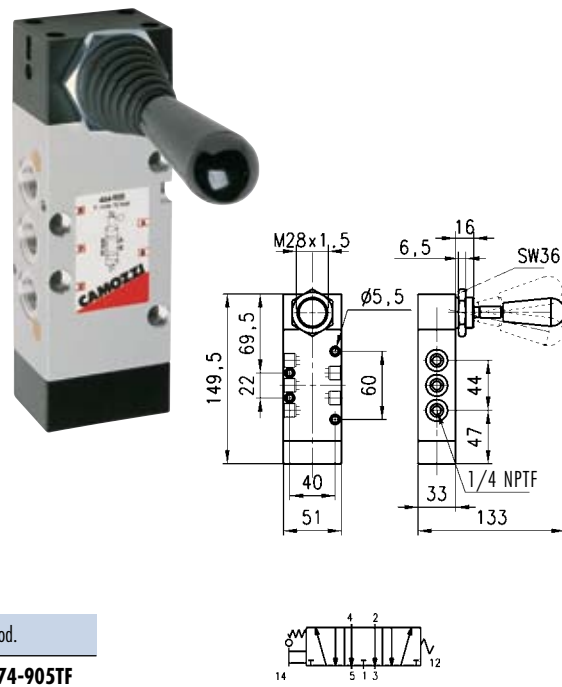


Mod.  
474-900TF

Valves Mod. 474-905TF

Cv = 1.3

Actuation Force at 87 psi = 2.25 lbf



Mod.  
474-905TF