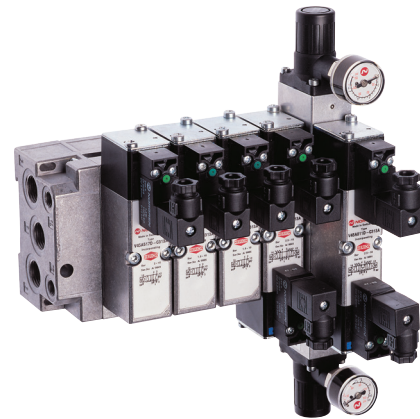


- > 2 x 3/2, 5/2 and 5/3 valves, ISO 15407-1/VDMA 24 563, Size 26 mm
- > Solenoid and pilot actuated
- > High performance, compact design
- > Flexible sub-base system
- > Multipressure system capability
- > Dual spool technology:
  - V44 Glandless spool and sleeve (long life)
  - V45 Softseal spool (high flow)
- > Collected pilot exhaust with internal pilot air supply
- > Easy to convert from internal to external pilot supply
- > Valve exchange under pressure



### Technical features

#### Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

#### Operation:

V44: Glandless spool valve, solenoid pilot or air pilot actuated  
 V45: Softseal spool valve, solenoid pilot or air pilot actuated

#### Flow:

V45 Softseal:				
Function	l/min	Cv	Kv	
2x3/2 NC	1100	1,12	0,96	
2X3/2 NO	1000	0,98	0,87	
5/2	1200	1,22	1,05	
5/3	1150	1,17	1,00	
V44 Glandless:				
Function	l/min	Cv	Kv	
5/2	900	0,92	0,79	
5/3	900	0,92	0,79	

#### Mounting:

Sub-base

#### Operating pressure:

See tables for individual details

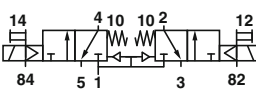
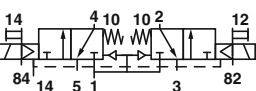
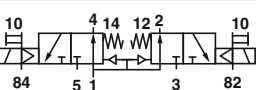
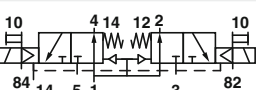
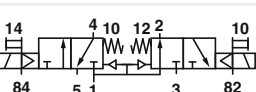
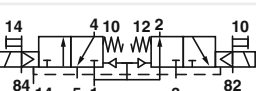
#### Media/Ambient temperature:

-15 ... +50°C (+5 ... 122°F)  
 V44/V45 solenoid and V45 air pilot models  
 -15 ... +80°C (+5 ... 176°F)  
 V44 air pilot models  
 Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

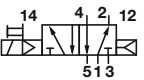
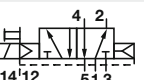


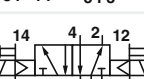
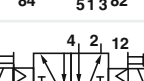

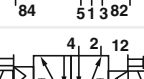
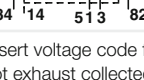
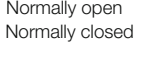


#### Materials:

Body: die-cast aluminium  
 Sub-bases: aluminium alloy  
 Spool and sleeve: hard anodized, Teflon coated, matched aluminium (V44); aluminium alloy spool with HNBR Seals (V45)  
 Plastic parts: POM  
 Static seals: NBR  
 End cover and screws: zinc plated  
 Springs: stainless steel

### 2 x 3/2 Solenoid pilot actuated softseal valves

Symbol	Function 2 x 3/2	Actuation/ return	Pilot supply	Pilot exhaust	Operating pressure (bar)	Pilot pressure (bar)	Flow (l/min)	Model
	NC	Solenoid/Spring	Internal	Collected #	3 ... 10	–	1000	V45AA11D-*1)
	NC	Solenoid/Spring	External	Not collected	0 ... 10	1,5 + (0,35 x operating pressure)	1000	V45AA22D-*1)
	NO	Solenoid/Spring	Internal	Collected #	3 ... 10	–	1000	V45AB11D-*1)
	NO	Solenoid/Spring	External	Not collected	0 ... 10	1,5 + (0,35 x operating pressure)	1000	V45AB22D-*1)
	NO/NC	Solenoid/Spring	Internal	Collected #	3 ... 10	–	1000/1100	V45AC11D-*1)
	NO/NC	Solenoid/Spring	External	Not collected	0 ... 10	1,5 + (0,35 x operating pressure)	1000/1100	V45AC22D-*1)

### 5/2 Solenoid pilot actuated glandless and softseal valves

Symbol	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)	Model
	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Glandless	900	V44A513D-*1)
	External	Not collected	Solenoid	Air spring	-0,9 ... 16	1 ... 10	Glandless	900	V44A523D-*1)
	Internal	Collected #	Solenoid	Spring	1,6 ... 10	–	Glandless	900	V44A517D-*1)
	Internal	Collected #	Solenoid	Spring	2 ... 10	–	Softseal	1200	V45A517D-*1)
	External	Not collected	Solenoid	Spring	-0,9 ... 16	1,6 ... 10	Glandless	900	V44A527D-*1)
	External	Not collected	Solenoid	Spring	-0,9 ... 10	2 ... 10	Softseal	1200	V45A527D-*1)
	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900	V44A511D-*1)
	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Softseal	1200	V45A511D-*1)
	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	Glandless	900	V44A522D-*1)
	External	Not collected	Solenoid	Solenoid	-0,9 ... 10	2 ... 10	Softseal	1200	V45A522D-*1)
	Internal	Collected #	Solenoid (priority)	Solenoid	2 ... 10	–	Glandless	900	V44A591D-*1)
	External	Not collected	Solenoid (priority)	Solenoid	-0,9 ... 16	2 ... 10	Glandless	900	V44A592D-*1)

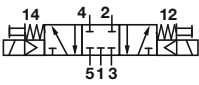
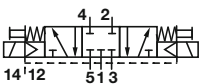

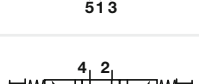

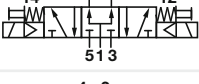
\*1) Insert voltage code from tables on page 3

# Pilot exhaust collected and exhausted via port 14

NO = Normally open

NC = Normally closed

**5/3 Solenoid pilot actuated glandless and softseal valves**

Symbol	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)	Model
	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900	V44A611D-*2)
	APB	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Softseal	1150	V45A611D-*2)
	APB	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	Glandless	900	V44A622D-*2)
	APB	External	Not collected	Solenoid	Solenoid	-0,9 ... 10	2,5 ... 10	Softseal	1150	V45A622D-*2)
	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900	V44A711D-*2)
	COE	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Softseal	1150	V45A711D-*2)
	COE	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	Glandless	900	V44A722D-*2)
	COE	External	Not collected	Solenoid	Solenoid	-0,9 ... 10	2,5 ... 10	Softseal	1150	V45A722D-*2)
	COP	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900	V44A811D-*2)
	COP	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Softseal	1150	V45A811D-*2)
	COP	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	Glandless	900	V44A822D-*2)
	COP	External	Not collected	Solenoid	Solenoid	-0,9 ... 10	2,5 ... 10	Softseal	1150	V45A822D-*2)

\*2) Insert voltage code from tables below

# Pilot exhaust collected and exhausted via port 14

APB = All Ports Blocked

COE = Centre Open Exhaust

COP = Centre open pressure

**Electrical details for solenoid operators**

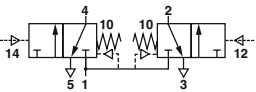
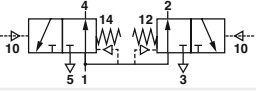
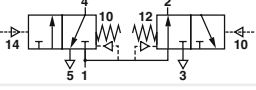
<b>Voltage tolerances</b>	-10%/+15%
<b>Rating</b>	100 % Continuous duty
<b>Inlet orifice</b>	0,8 mm
<b>Electrical connection</b>	15 mm DIN EN 175301-803 (DIN 43 650) Table C
<b>Manual override</b>	Shrouded push button, spring return Convertible into lockable type with set-up kit, part no. V70532-K00 (see next page)
<b>Protection class</b>	IP 65 with sealed plug (ISO 6952) NEMA 4
<b>Materials</b>	PPS (body), FPM and NBR (seal)

**Voltage codes & spare pilots**

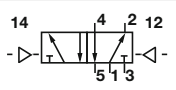
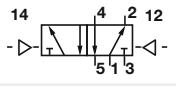
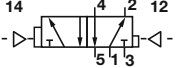
Voltage	Coil code	Current	Spare pilot valve
12 V d.c.	C312A	1 W	VZC7L2C1-C312A
24 V d.c.	C313A	1,2 W	VZC7L2C1-C313A
24 V 50/60 Hz.	C314A	2,1/1,5 VA	VZC7L2C1-C314A
48 V 50/60 Hz	C316A	2,1/1,5 VA	VZC7L2C1-C316A
110 V d.c.	C317A	1 W	VZC7L2C1-C317A
115 V 50/60 Hz	C318A	2,1/1,5 VA	VZC7L2C1-C318A
230 V 50/60 Hz	C319A	2,1/1,5 VA	VZC7L2C1-C319A

Other voltages available on request. Spare pilot valves are delivered with mounting screws.

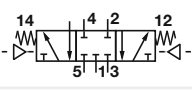
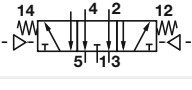
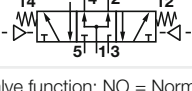
### 2 x 3/2 Air pilot actuated softseal valves

Symbol	Function 2 x 3/2	Actuation/return 2 x 3/2	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)	Model
	NC	Air/Spring	0 ... 10	1,7 + (0,35 x operating pressure)	Softseal	1100	V45AA33A-X0020
	NO	Air/Spring	0 ... 10	1,7 + (0,35 x operating pressure)	Softseal	1000	V45AB33A-X0020
	NO/NC	Air/Spring	0 ... 10	1,7 + (0,35 x operating pressure)	Softseal	1000/1100	V45AC33A-X0020

### 5/2 Air pilot actuated glandless and softseal valves

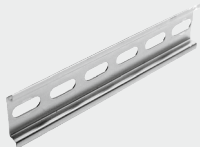



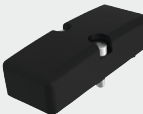
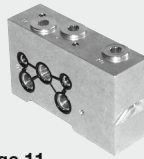
Symbol	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)	Model
	Air	Spring	-0,9 ... 16	1,6 ... 16	Glandless	900	V44A537A-X0090
	Air	Spring	-0,9 ... 10	2 ... 10	Softseal	1200	V45A537A-X0090
	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900	V44A533A-X0020
	Air	Air	-0,9 ... 10	2 ... 10	Softseal	1200	V45A533A-X0020
	Air (priority)	Air	-0,9 ... 16	2 ... 16	Glandless	900	V44A533A-X0070

### 5/3 Air pilot actuated glandless and softseal valves

Symbol	Function	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)	Model
	APB	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900	V44A633A-X0020
	APB	Air	Air	-0,9 ... 10	2,5 ... 10	Softseal	1150	V45A633A-X0020
	COE	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900	V44A733A-X0020
	COE	Air	Air	-0,9 ... 10	2,5 ... 10	Softseal	1150	V45A733A-X0020
	COP	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900	V44A833A-X0020
	COP	Air	Air	-0,9 ... 10	2,5 ... 10	Softseal	1150	V45A833A-X0020







Valve function: NO = Normally open,  
NC = Normally closed  
APB = All Ports Blocked  
COE = Centre Open Exhaust  
COP = Centre Open Pressure

## Accessories






DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Blanking plate for unused station	Transition plate V40/V41 » V44/V45
					
V10009-C00 (35 x 7,5 mm) V10592-C01 (35 x 15 mm)	V70531-KA0	V70522-K00 (Ports 1,3,5) V70523-K00 (Ports 12 & 14)	V70532-K00	V70500-KA0	V70436-K00 V70436-B00 *3)

\*3) With supply and exhaust portsg

## Sandwich plates

Intermediate supply/exhaust manifold	Single valve shut-off plate	Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate	Sandwich plate with additional pressure port 1
					
V70529-BA0 (G1/4)	V70530-KA0 (Port 1 blocked)	V70527-KA1 (Port 1 reg.) V70527-KA2 (Port 2 reg.) V70527-KA3 (Port 4 reg.)	V70527-KA4 (Ports 2+4 reg.)	V70528-KA0 (Ports 3+5 reg.)	V70535-BA0 (G1/4) V70535-RA0 (1/4 NPTF)

## Sub-bases and end plates

Single station sub-base	Single station modular sub-base, side ported	Single station modular sub-base, bottom ported	End plate kit	Fixed length sub-base
				
V70501-BAB (G1/4) V70501-RAB (1/4 NPTF)	V70525-*AF *4 V70526-*AF *5	V70525-BAE (G1/4) *4 V70526-BAE (G1/4) *5	V70524-CAC (G3/8) V70524-SAC (3/8 NPTF)	V705**-BA0 (G1/4) V705**-RA0 (1/4 NPTF)

\* = Insert code for port type, see on page 7

\*\* = Insert number of valve stations in sub-base assemblies, see page 8

\*4) Without pilot ports

\*5) With pilot ports

## Connector plug - ordered separately

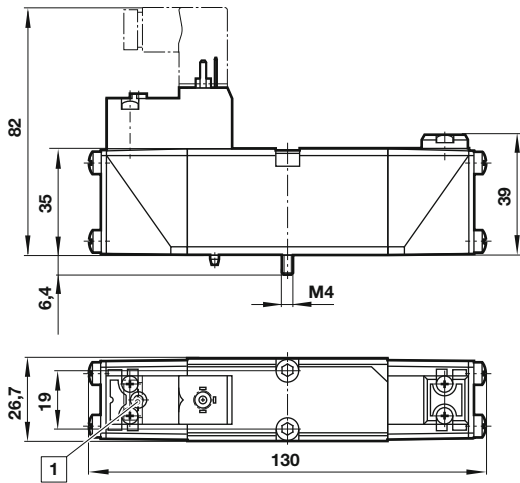
15 mm DIN EN 175301-803  
(DIN 43 650) Table C



V10027-D00  
250 V AC/300 V DC.

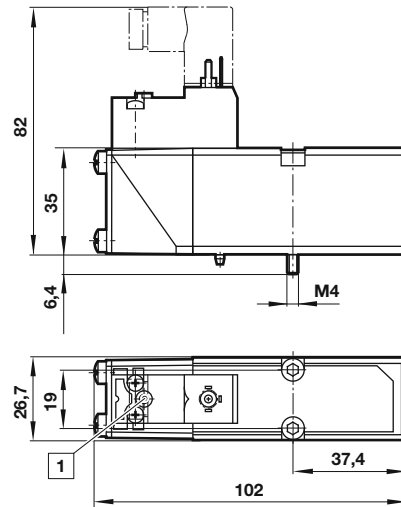
**Valve dimensions**

V44A5\*3D-C3\*\*\*  
5/2 Single solenoid pilot valve  
Air spring return



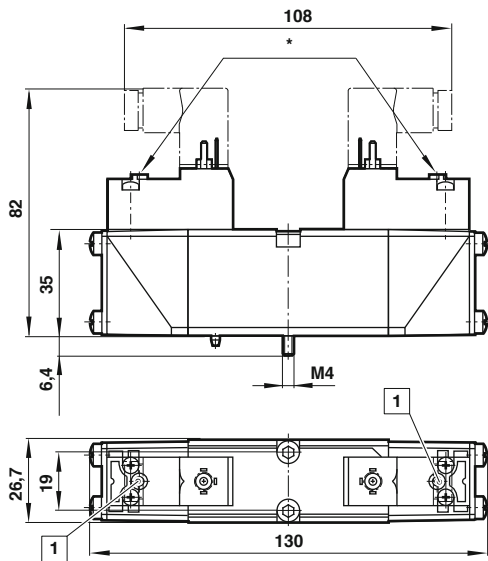
V44A5\*7D-C3\*\*\* & V45A5\*7D-C3\*\*\*  
5/2 Single solenoid pilot valve  
Mechanical spring return

Dimensions in mm  
Projection/First angle



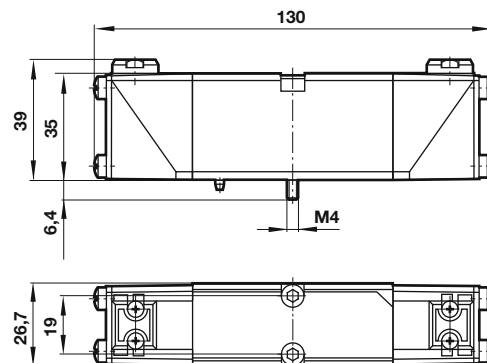
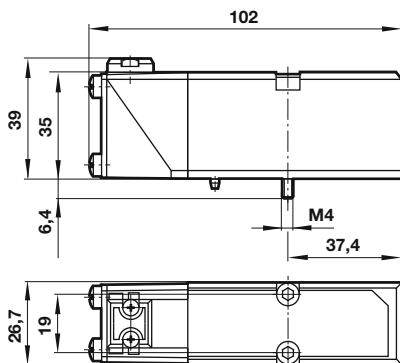
V44A5\*\*D-C3\*\*\* & V45A5\*\*D-C3\*\*\*  
5/2 Double solenoid pilot valve  
V44A\*\*\*D-C3\*\*\* & V45A\*\*\*D-C3\*\*\*  
2x3/2 + 5/3 Double solenoid pilot valve

1 Manual override

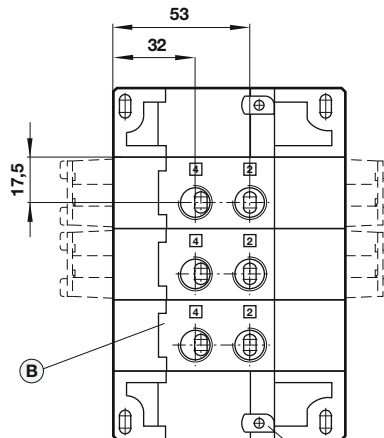
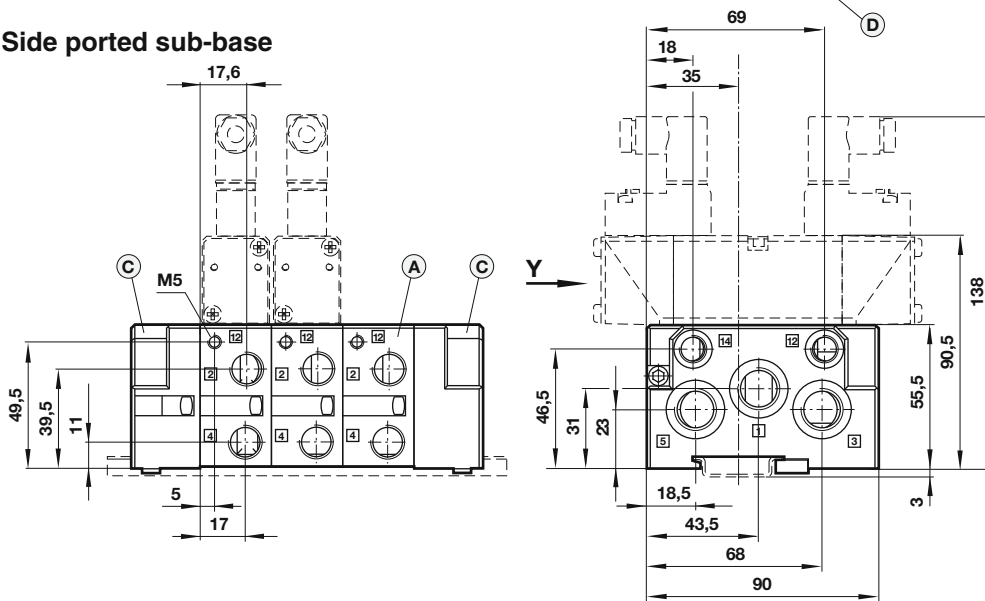
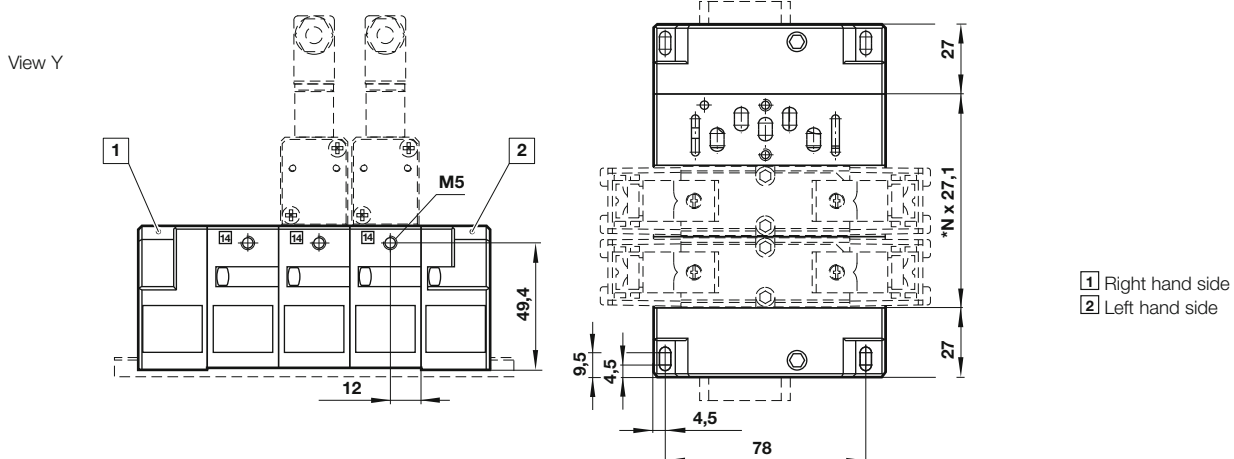


V44A537A-X00\*0 & V45A537A-X00\*0  
5/2 Single air pilot valve

V44A\*33A-X00\*0 & V45A\*33A-X00\*0  
2 x 3/2, 5/2 + 5/3 Double air pilot valve



**Modular sub-bases parts for DIN rail or surface mounting**  
**Bottom ported sub-base**

 Dimensions in mm  
 Projection/First angle

**Side ported sub-base**

**Bottom and side ported sub-base**


- 1 Right hand side
- 2 Left hand side

## Individual components

<b>Modular sub-base (A)</b>	Ports 2+4 on side without pilot ports Model: V70525-*AF (0,18 kg)	Ports 2+4 on side with pilot ports Model: V70526-*AF (0,18 kg)
<b>Modular sub-base (B)</b>	Ports 2+4 on bottom without pilot ports Model: V70525-BAE (G1/4) 0,18 kg	Ports 2+4 on bottom with pilot ports Model: V70526-BAE (G1/4) 0,18 kg
<b>End plate kit (C)</b>	Side ported Model: V70524-CAC G3/8, 12 & 14 G1/8) 0,36 kg Model: V70524-SAC (3/8 NPTF 12 & 14 1/8 NPTF)*6) 0,36 kg	

\* Insert code for port type, see table on the right hand

\*6) End ported end caps 1 left and 1 right hand

N = number of stations

Note: Port 14 either used for external pilot air supply or for collected pilot air exhaust.

**Therefore, never plug port 14 when using valves with internal pilot air supply.**

Port 12 is not used, plugging not necessary.

Code	Port size 2 & 4	Port sizes 12/14
B	G1/4	M5
P	1/8 NPTF	M5
R	1/4 NPTF	M5
8	Ø 8 mm PIF	M5
Y	Ø 6 mm PIF	M5
2	Ø 3/8 PIF	M5

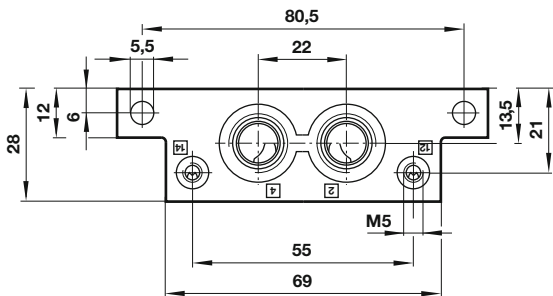
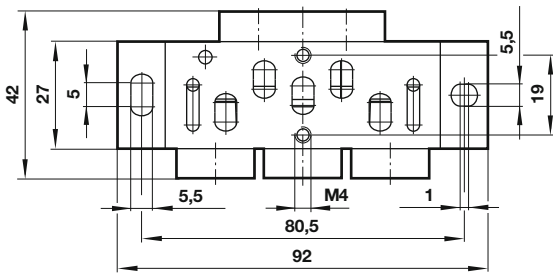
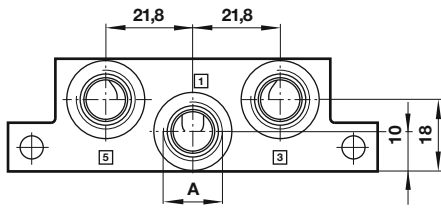
## Accessories

<b>DIN EN 50022 rail</b>	
35 x 7,5 mm, 1m	V10009-C00 (0,31 kg)
35 x 15 mm, 1m	V10592-C01 (1,02 kg)
<b>DIN rail (D)</b>	V70531-KAO (0,01 kg)
Mounting kit	
<b>Blanking disk to modular sub-base</b>	V70522-K00 (0,01 kg)
Ports 1, 3, 5	
<b>Blanking disk to modular sub-base</b>	V70523-K00 (0,01 kg)
Ports 12+14	



Single station sub-base – side ported with pilot ports

Dimensions in mm  
Projection/First angle



Port size A

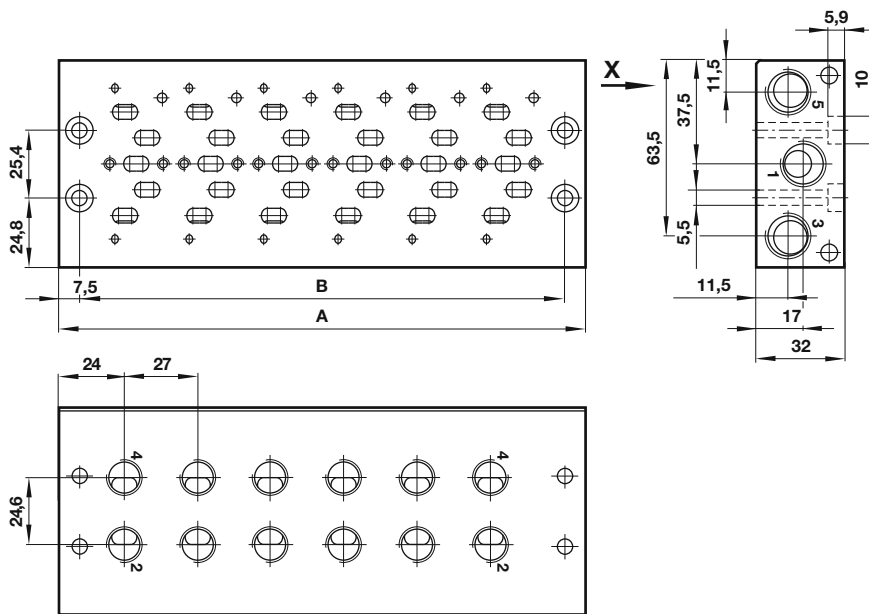
G1/4 side ported with pilot ports 0,11 kg  
NPTF1/4 side ported with pilot ports 0,24 kg

Model

V70501-BAB  
V70501-RAB

Note: Pilot ports = M5

Fixed length sub-base - bottom ported

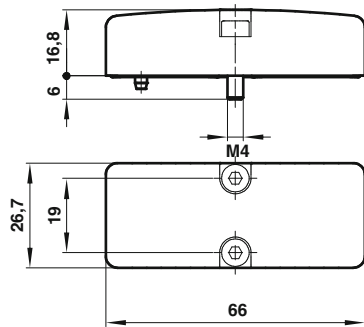


Number of stations	A	B	Weight (kg)	Model	Code	Ports 2 & 4	Ports 1, 3 & 5
2	83	68	0,4	V70502-xA0	B	G1/4	G3/8
4	137	122	0,65	V70504-xA0	R	1/4NPTF	3/8 NPTF
6	191	176	0,91	V70506-xA0	Note: This sub-base is suitable for solenoid pilot actuated valves with internal pilot air supply only		
8	245	230	1,15	V70508-xA0			
10	299	284	1,41	V70510-xA0			
12	353	338	1,66	V70512-xA0			

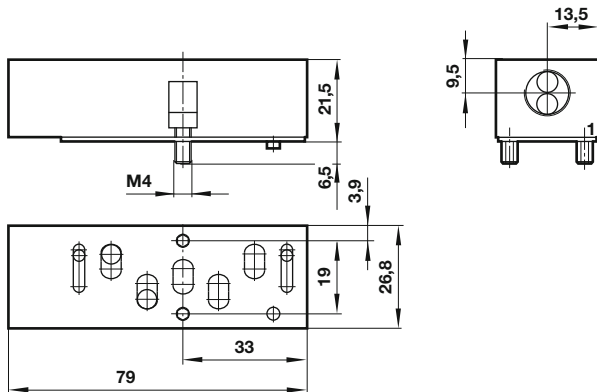
x = Insert port type from table

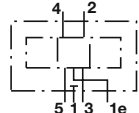
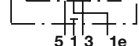


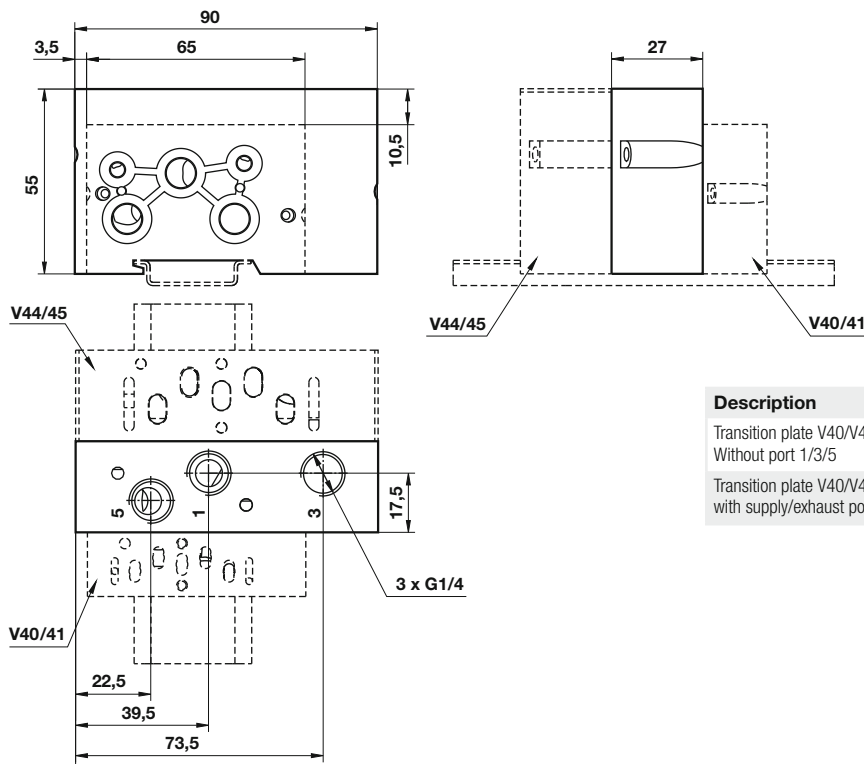
**Blanking plate**

 Dimensions in mm  
 Projection/First angle


Description	Model
Blanking plate for blocking of unused stations (supplied with gasket, 0,03 kg)	V70500-KA0

**Sandwich plate with additional pressure port 1**


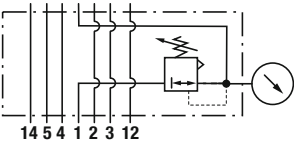
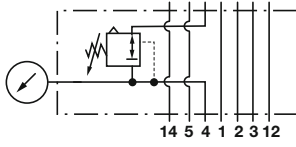
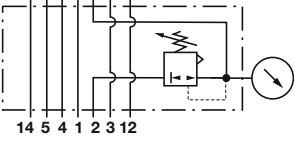
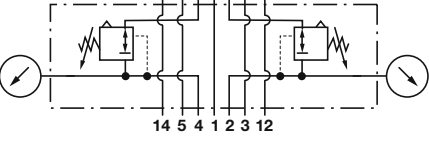
Symbol	Description	Model
	Sandwich plate with additional port 1 G1/4, supplied with gasket (0,12 kg)	V70535-BA0
	Sandwich plate with additional port 1 G1/4, supplied with gasket (0,12 kg)	V70535-RA0

**Transition plate #18 mm > #26 mm**


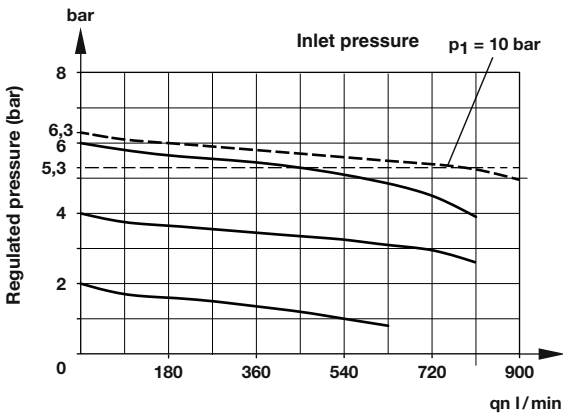
Description	Model
Transition plate V40/V41 » V44/V45 Without port 1/3/5	V70436-K00
Transition plate V40/V41 » V44/V45 with supply/exhaust ports G1/4	V70436-B00

**Sandwich plates**

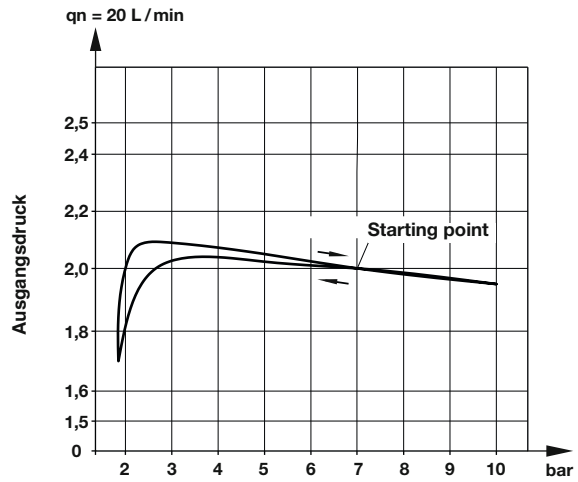
**Pressure regulator sandwich plates**

Symbol	Model	Description	Symbol	Model	Description
	V70527-KA1	Regulation of port 1, regulator on side 12		V70527-KA3	Regulation of port 4, regulator on side 14
	V70527-KA2	Regulation of port 2, regulator on side 1		V70527-KA4	Regulation of ports 2+4

**Flow characteristics for pressure regulator plates**

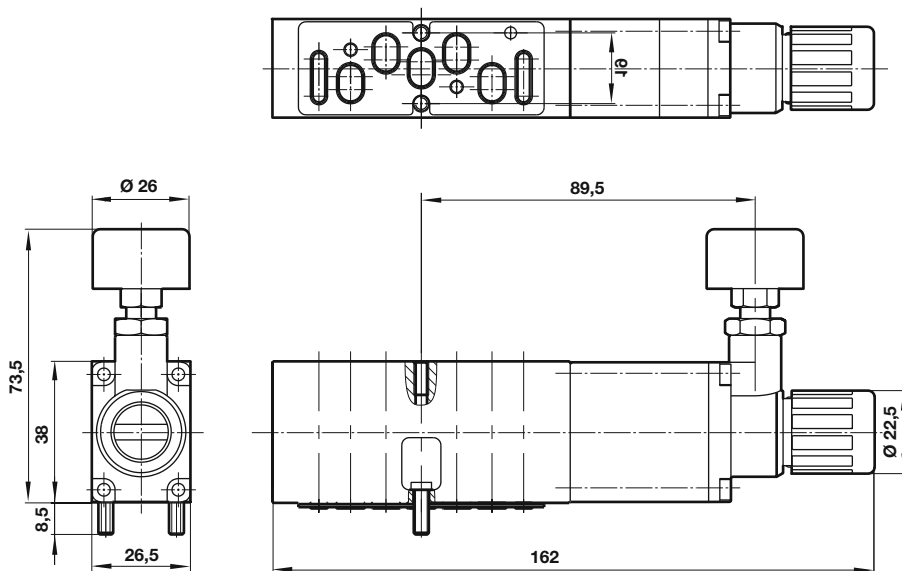


**Hysteresis**

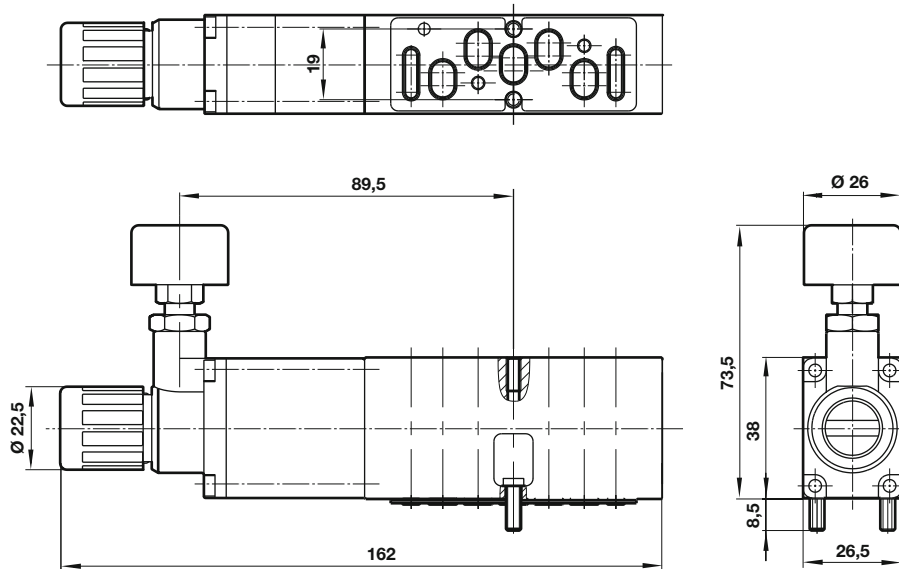
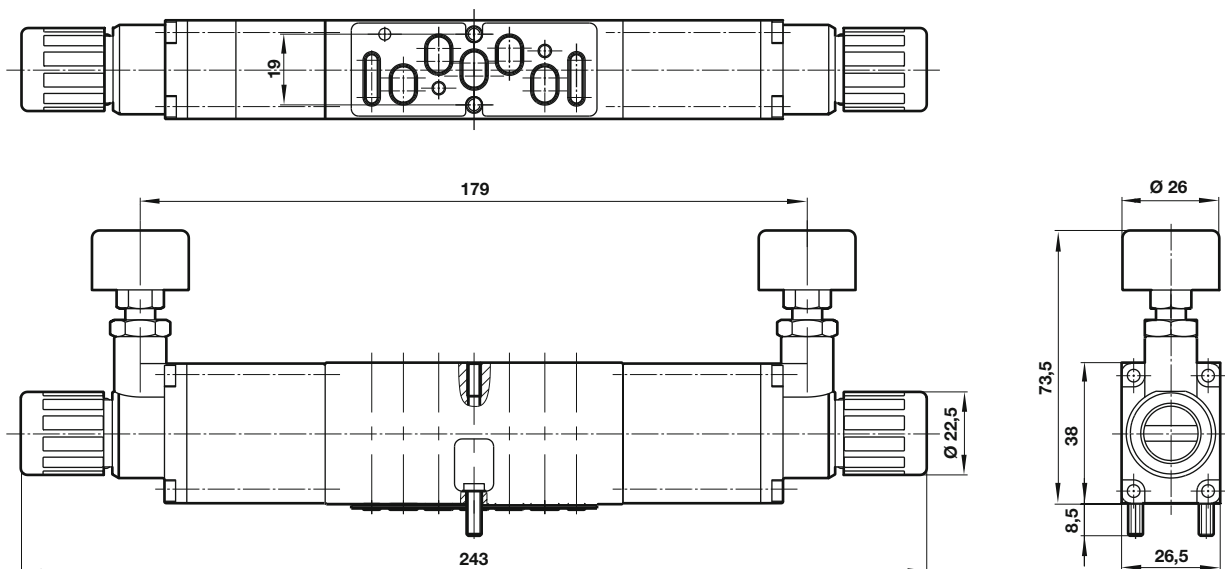


**Pressure regulator plates V70527-KA1 & V70527-KA2 (including gauges)**

Dimensions in mm  
Projection/First angle



**Pressure regulator plate V70527-KA3  
(including gauges)**

 Dimensions in mm  
Projection/First angle

**Pressure regulator plate V70527-KA4  
(including gauges)**

**Warning**

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, IMI International s.r.o.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.