



V44 Mini ISO Valves

5/2 and 5/3 Valves
Solenoid actuated
ISO 15407-1/VDMA 24 563
with single connector M12x1
Size 26 mm

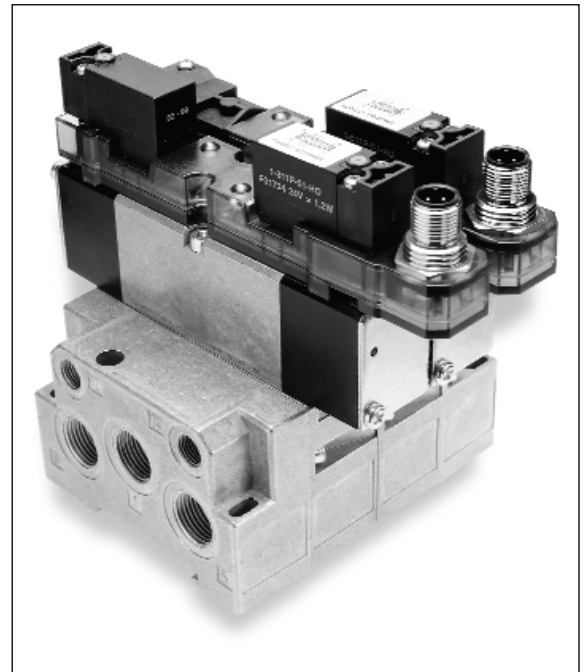
Non corrosive glandless spool and sleeve

16 bar (2 W) and 10 bar (1,2 W) 24 V d.c. solenoids with non-locking manual override

Robust metal M12x1 connector with 4 pin

Solenoids with surge suppression and LED indicator

Compact design and high performance



Technical data

Medium:

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

Operation:

Glandless spool valve, solenoid pilot actuated

Mounting:

Sub-base

Operating pressure:

Maximum pressure:

10 bar solenoid pilot (1,2 W) actuated valves

16 bar solenoid pilot (2 W) actuated valves

Details of minimum and maximum pilot pressure see overleaf

Flow:

Series	Function	'C'	'b'	'A'	l/min	Cv	Kv
V44	5/2	4,03	0,07	14,38	900	0,92	0,79
V44	5/3 APB	4,03	0,07	14,38	900	0,92	0,79

Ambient temperature:

-15°C to +50°C

Consult our Technical Service for use below +2°C.

Materials

Body and sub-base: die cast aluminium

Spool and sleeve: hard anodised, Teflon coated, matched aluminium

Plastic parts: POM and PA

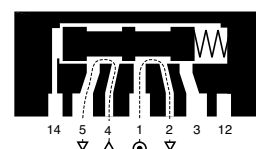
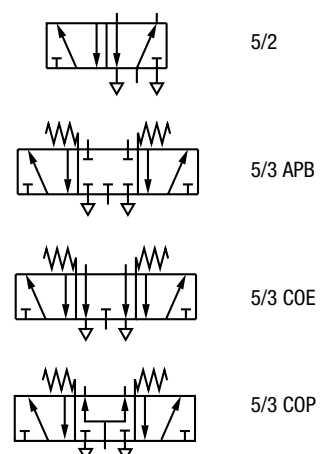
Static seals: NBR

End cover and screws: zinc plated

Springs: stainless steel

Ordering information

To order select model from page 5.4.154.03, e.g. **V44A517A-F313T** for a 5/2 solenoid pilot (10 bar) actuated, spring return valve with internal pilot air supply.





Options selector

V44A★★★A-★313T

Function	Substitute
5/2	5
5/3 APB	6
5/3 COE	7
5/3 COP	8

Operation side 14/Return side 12	Substitute
Solenoid/air spring, internal pilot supply	16
Solenoid/air spring, external pilot supply	26
Solenoid/spring, internal pilot supply	17
Solenoid/spring, external pilot supply	27
Solenoid/solenoid, internal pilot supply	11
Solenoid/solenoid, external pilot supply	22
Solenoid priority side 14/solenoid, internal pilot supply	91
Solenoid priority side 14/solenoid, external pilot supply	92

Pilot valve	Substitute
Pilot valve 24 V DC, 10 bar/1,2 W	F
Pilot valve 24 V DC, 16 bar/2 W	G

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 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 NORGREN.

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.



5/2 Solenoid pilot actuated valves – 16 bar (2 W) models

Symbol	Model	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	kg	Spares kit
	V44A513A-G313T	Internal	Not collected	Solenoid	Air spring	1 ... 16	–	0,24	V70540-KAO
	V44A523A-G313T	External	Not collected	Solenoid	Air spring	-0,9 ... 16	1 ... 16	0,24	V70540-KAO
	V44A517A-G313T	Internal	Not collected	Solenoid	Spring	1,6 ... 16	–	0,20	V70540-KAO
	V44A527A-G313T	External	Not collected	Solenoid	Spring	-0,9 ... 16	1,6 ... 16	0,20	V70540-KAO
	V44A511A-G313T	Internal	Not collected	Solenoid	Solenoid	2 ... 16	–	0,27	V70540-KAO
	V44A522A-G313T	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 16	0,27	V70540-KAO
	V44A591A-G313T	Internal	Not collected	Sol (Priority)	Solenoid	2 ... 16	–	0,27	V70540-KAO
	V44A592A-G313T	External	Not collected	Sol (Priority)	Solenoid	-0,9 ... 16	2 ... 16	0,27	V70540-KAO

5/3 Solenoid pilot actuated valves – 16 bar (2 W) models

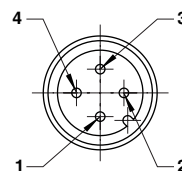
Symbol	Model	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	kg	Spares kit
	V44A611A-G313T	APB	Internal	Not collected	Solenoid	Solenoid	2 ... 16	–	0,28	V70540-KAO
	V44A622A-G313T	APB	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 16	0,28	V70540-KAO
	V44A711A-G313T	COE	Internal	Not collected	Solenoid	Solenoid	2 ... 16	–	0,28	V70540-KAO
	V44A722A-G313T	COE	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 16	0,28	V70540-KAO
	V44A811A-G313T	COP	Internal	Not collected	Solenoid	Solenoid	2 ... 16	–	0,28	V70540-KAO
	V44A822A-G313T	COP	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 16	0,28	V70540-KAO

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

Electrical details for solenoid operators

Voltage/power	24V DC / 2 W
Spare pilot valve	VZC7LAC1-C333R
Voltage tolerance	-10% / +15%
Rating	100% E.D.
Surge suppression	Varistor
Indication	Green LED
Electrical connection	M12x1 with 4 pin
Pin assignment	Acc. VDMA 24571 (see drawing)
Protection class	IP 65 with sealed plug (ISO 6952)
Manual override	Push to operate spring return
Inlet orifice	0,8 mm

Pin layout (male pin shown)



Pin	Description
1	Not used
2	+24V DC for solenoid 12
3	Common minus for solenoid 12 and 14
4	+24V DC for solenoid 14



5/2 Solenoid pilot actuated valves – 10 bar (1,2 W) models

Symbol	Model	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	kg	Spares kit
	V44A513A-F313T	Internal	Not collected	Solenoid	Air spring	1 ... 10	–	0,24	V70540-KA0
	V44A523A-F313T	External	Not collected	Solenoid	Air spring	-0,9 ... 16	1 ... 10	0,24	V70540-KA0
	V44A517A-F313T	Internal	Not collected	Solenoid	Spring	1,6 ... 10	–	0,20	V70540-KA0
	V44A527A-F313T	External	Not collected	Solenoid	Spring	-0,9 ... 16	1,6 ... 10	0,20	V70540-KA0
	V44A511A-F313T	Internal	Not collected	Solenoid	Solenoid	2 ... 10	–	0,27	V70540-KA0
	V44A522A-F313T	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	0,27	V70540-KA0
	V44A591A-F313T	Internal	Not collected	Solenoid (Priority)	Solenoid	2 ... 10	–	0,27	V70540-KA0
	V44A592A-F313T	External	Not collected	Solenoid (Priority)	Solenoid	-0,9 ... 16	2 ... 10	0,27	V70540-KA0

5/3 Solenoid pilot actuated valves – 10 bar (1,2 W) models

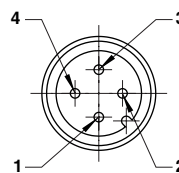
Symbol	Model	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	kg	Spares kit
	V44A611A-F313T	APB	Internal	Not collected	Solenoid	Solenoid	2 ... 10	–	0,28	V70540-KA0
	V44A622A-F313T	APB	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	0,28	V70540-KA0
	V44A711A-F313T	COE	Internal	Not collected	Solenoid	Solenoid	2 ... 10	–	0,28	V70540-KA0
	V44A722A-F313T	COE	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	0,28	V70540-KA0
	V44A811A-F313T	COP	Internal	Not collected	Solenoid	Solenoid	2 ... 10	–	0,28	V70540-KA0
	V44A822A-F313T	COP	External	Not collected	Solenoid	Solenoid	-0,9 ... 16	2 ... 10	0,28	V70540-KA0

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

Electrical details for solenoid operators

Voltage/power	24V DC / 2 W
Spare pilot valve	VZC7LAC1-C313R
Voltage tolerance	±10%
Rating	100% E.D.
Surge suppression	Varistor
Indication	Green LED
Electrical connection	M12x1 with 4 pin
Pin assignment	Acc. VDMA 24571 (see drawing)
Protection class	IP 65 with sealed plug (ISO 6952)
Manual override	Push to operate spring return
Inlet orifice	0,8 mm

Pin layout (male pin shown)



Pin	Description
1	Not used
2	+24V DC for solenoid 12
3	Common minus for solenoid 12 and 14
4	+24V DC for solenoid 14



Bases and accessories

Bases

Sub-base assemblies Side ported	Sub-base assemblies Side ported with pilot ports	Sub-base assemblies Bottom ported	Sub-base assemblies Bottom ported with pilot ports	
V45AX**-XXXXX Single pressure	V45EX**-XXXXX Single pressure	V45BCX**-XXXXX Single pressure	V45BFX**-XXXXX Single pressure	
V45AX**-**XXX Dual pressure	V45EX**-**XXX Dual pressure	V45BCX**-**XXX Dual pressure	V45BFX**-**XXX Dual pressure	
Modular sub-base Side ported without pilot ports	Modular sub-base Side ported with pilot ports	Modular sub-base Side ported (PIF) without pilot ports	Modular sub-base Side ported (PIF) with pilot ports	Modular sub-base Bottom ported (PIF) without pilot ports
V70525-BAF (G1/4)	V70526-BAF (G1/4)	V70525-8AF (Ø 8 mm)	V70526-8AF (Ø 8 mm)	V70525-BAE (G1/4)
V70525-PAF (1/8NPTF)	V70526-PAF (1/8NPTF)	V70525-YAF (Ø 10 mm)	V70526-YAF (Ø 10 mm)	
V70525-RAF (1/4NPTF)	V70526-RAF (1/4NPTF)	V70525-2AF (3/8")	V70526-2AF (3/8")	
Modular sub-base Bottom ported with side pilot ports	End plate kit End ported	Fixed length sub-base Bottom ported	Single station sub-base Side ported with pilot ports	
V70526-BAE (G1/4)	V70524-CAC (G3/8)	V705**-BA0 (G1/4)	V70501-BAB (G1/4)	
	V70524-SAC (3/8NPTF)	V705**-RA0 (1/4NPTF)	V70501-RAB (1/4NPTF)	
** = 02,04,06,08,10,12 stations				

x Insert code for port type. See table on page 5.4.152.08 ** Insert number of valve stations in sub-base assemblies.

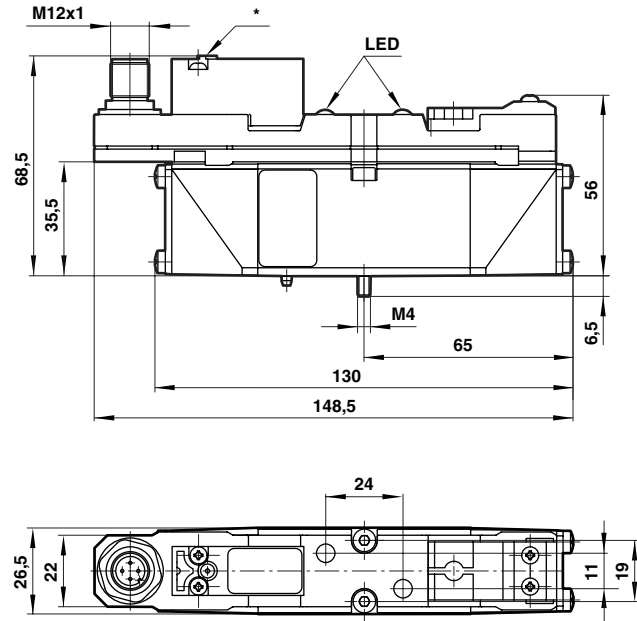
**-* Insert valve station to indicate position of dual pressure blanking disk. See page 5.4.152.08

Accessories

Intermediate supply/exhaust module	Single valve shut-off plate	Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate
V70529-BA0 (G1/4)	V70530-KA0 (Port 1 blocked)	V70527-KA1 (Port 1 reg.)	V70527-KA4 (Ports 2+4 reg.)	V70528-KA0 (Ports 3+5 reg.)
V70529-RA0 (1/4NPTF)		V70527-KA2 (Port 2 reg.)		
		V70527-KA3 (Port 4 reg.)		
Sandwich plate with additional pressure port 1	DIN EN 50 022 rail (1 metre)	DIN-rail mounting kit	Blanking plate for unused station	Blanking disk to modular sub-base
V70535-BA0 (G1/4)	V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70500-KA0	V70522-K00 (Ports 1,3,5)
V70535-RA0 (1/4 NPTF)	V10592-C01 (35 x 15 mm)			V70523-K00 (Ports 12+14)
Blanking plug for fixed length sub-base	Manual override set-up kit	Transition plate #18 mm* -> #26 mm	Transition plate #18 mm* -> #26 mm with supply and exhaust ports	
V70521-K00 (Ports 3+5)	V70532-K00	V70436-K00	V70436-B00 G1/4	
V70533-K00 (Port 1)				

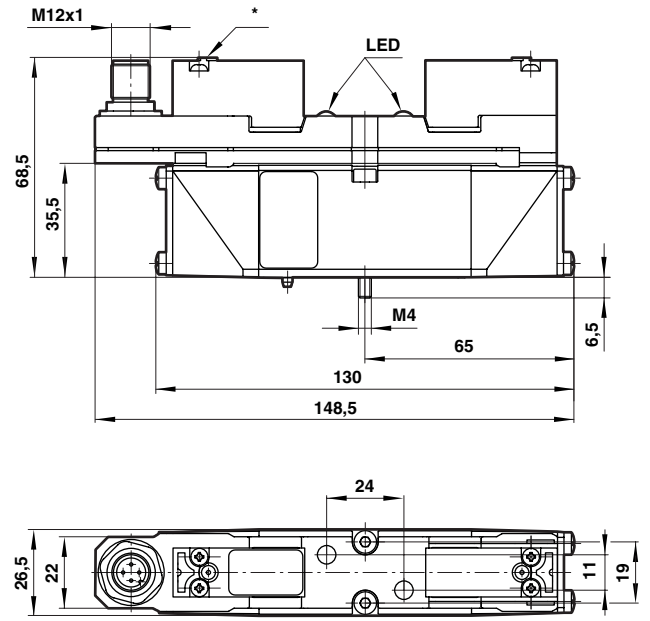


5/2 Single solenoid pilot valve
Air spring or mechanical spring return
10 bar or 16 bar models



* Manual override

5/3 Double solenoid pilot valve
10 bar or 16 bar models



* Manual override