

- > **Port size:**
 Inline: 1/2 ... 1 1/4"
 (ISO G) and
 Interface DN 15, 25
- > **NF F 11 806**
 compliant *1)
- > **Leak tight design**
- > **Wide pressure and**
temperature range
- > **High durability**
- > **Different handle**
options
- > **High corrosion**
resistance
- > **Easy to maintain**
- > **Different monitoring**
options

*1) Interface ball valve does not fulfill required flow due to dimension restriction of the standard.



+85°C
(+185°F)

-40°C
(-40°F)



Technical features

Medium:

Compressed air, water, inert gases and any other fluid compatible with the valve materials

Maximum operating pressure:

0 ... 12 bar (0 ... 174 psi)

Handle options:

Lever handle, Latching handle, Latching handle with locking (all options available in white, red, yellow and black)

Port size:

Inline:

G1/2, G3/4, G1, G1 1/4

(G1/4 and G3/8 available as T10)

Interface:

DN 15, DN 25,

(DN 7 available as T10)

Monitoring options:

Open position, Close position

Open/close position,

Open/open position *2),

Close/close position *2)

*2) Interface version with two switches, Inline version with DPDT switch

Ambient/Media temperature:

-40 ... +85°C (-40 ... +185°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (35°F).

Storage temperature:

-55 ... +85°C (-67 ... +185°F)

Materials:

Body and end connectors and handles: Aluminium

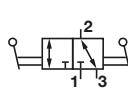
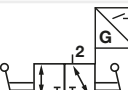
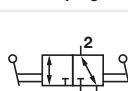
Seat: PTFE

'O' rings: Synthetic Rubber

Ball, Stem: Brass

Screws: Steel

Technical data - Standard options

Symbol	Port size	Version 3/2 valve	Position Indicator	Weight (kg)	Dimension No.	Model
	G1/2	Inline	No	0,4	1	VT20-410-F2JG
	G3/4			0,7	1	VT30-610-F2JG
	G1			1	1	VT40-810-F2JG
	G1 1/4			1,8	1	VT50-A10-F2JG
	G1/2	Inline	Close/close position	0,5	1	VT20-450-F2JG
	G3/4			0,9	1	VT30-650-F2JG
	G1			1,2	1	VT40-850-F2JG
	G1 1/4			2	1	VT50-A50-F2JG
	DN 15	Interface	No	0,6	2	VT20-N10-D2JN
	DN 25			1,4	3	VT40-N10-D2JN
	DN 15	Interface	Close position	1	2	VT20-N30-D2JN
	DN 25			1,7	3	VT40-N30-D2JN

Compliant Standards:

Interface version complying with NF F 11 101

Working complying with NF F 11 806 *3)

Protection grades against external agents NF F 11 102

- Against exterior solid bodies: S6

- Ice protection: G1

- Against mechanical chocks by impact: M9

- Against corrosion: C5 (1000 hours)

- Against throwing ballast: K7 (VT20, VT30) & K9 (VT40, VT50) *4)

Shock & vibration: EN 61373 category 1, class A&B; MIL-STD-810G; GOST 17516.1; GOST 30631

Fire&Smoke: EN 45545, NFPA -130, NF F 16-101

*3) Interface ball valve does not fulfill required flow due to dimension restriction of the standard.

*4) The valve retain structural & sealing integrity.

Electrical parameters

Inline valve with position switch Switching element:
Microswitch with roller plunger
Interface valve with position switch Switching element:
Microswitch

Voltage:
250 V a.c. max
Current:
Inline: 5 A
Interface: 6 A

Protection class:
IP65 (DIN 40050) with
appropriate connector

Electrical connection:
Single switch:
DIN EN 175301-803 (DIN 43650)
Form A
Double switch:
DIN EN 175201-804 (DIN 43651)
Inline:
Free cable end

Option selector

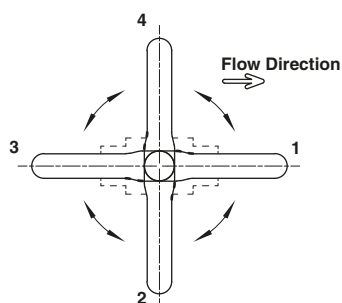
Series size	Substitute
DN 15	20
DN 20	30
DN 25	40
DN 32	50
Thread size	Substitute
1/2" (DN 15)	4
3/4" (DN 20)	6
1" (DN 25)	8
1 1/4" (DN 32)	A
No thread (DN 15, DN 25)	N
Monitoring option	Substitute
No monitoring	1
Open Position	2
Close Position	3
Open/Open Position	4
Close/Close Position	5
Open/Close Position	6
Handle position	Substitute
1 open; 2 close	0
1 close; 2 open	1
3 open; 4 close	2
4 close; 1 open	3

VT★-★-★-★-★2★

Thread type	Substitute
PTF	A
ISO Rc	B
G thread	G
No thread	N
Handle	Substitute
No handle	N
Lever handle	
White	H
Black	J
Red	K
Yellow	L
Latching handle	
White	O
Black	P
Red	R
Yellow	S
Port and locking	Substitute
Inline	
No Lock	F
Lock closed	T
Lock closed and open	H
Interface	
No lock	D
Lock closed	E
Lock closed and open	C

Other options available upon request

Handle position selector

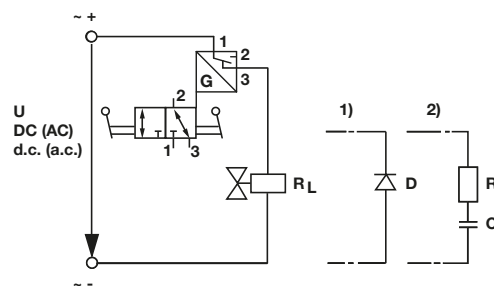


Spark quenching with d.c. voltage

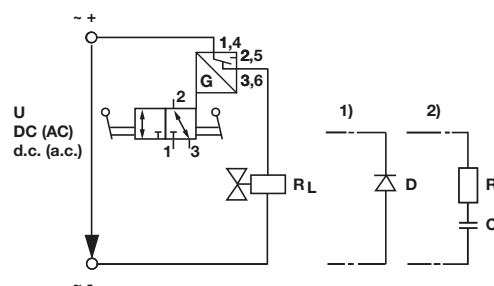
1. Diode D in parallel to inductive load.
 Observance of correct polarity (positive pole to cathode).
 Dimensioning specifications for quenching diode:
 Rated reverse voltage at diode: $U_D \geq 1,5 \times U_{d.c.} - 2 \times U_{a.c.}$
 Rated current at diode: $I_N \geq I_{Load}$

Selection of a quick switching diode (recovery time $t_{rr} \leq 200 \text{ ns}$).

2. RC link in parallel to load in parallel to switching contact.
 Suited for d.c. and a.c. voltage.
 Dimensioning principles:
 $R \text{ in } \Omega \approx 0,2 \times R_{Load \text{ in } \Omega}$
 $C \text{ in } [\mu F] \approx I_{Load \text{ in } [A]}$



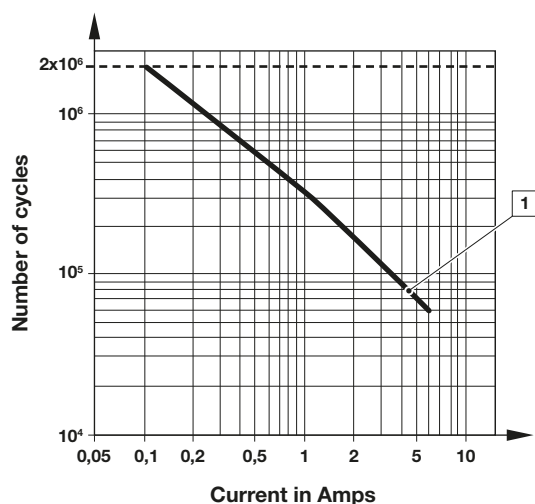
$R_L = \text{Load resistance}$



$R_L = \text{Load resistance}$

Lifetime expectancy

Interface version: Lifetime expectancy curve 250 V a.c.



1 Resistive circuit

Inline version: Mechanical life 5 M cycles min. at 60 CPM, Electrical life: 1A 110 V d.c. 500,000 cycles applicable for NC circuit

Accessories

Seal kit		Handle kit			External switch kit
VT**-KITAN	VT**KITAT	VT**-KITB**	VT**-KITC**	VT**-KITD**	VTXX-KITE *5)
					

*5) Available for inline version only.

For exact PN please use the following option selectors.

Option selector – Seal kit

Series size		Substitute	Interface		Substitute
DN 15		20	Inline		T
DN 20		30	Manifold		N
DN 25		40			
DN 32		50			

Option selector - Handle kit

Series size		Substitute	Handle position		Substitute
DN 15		20	1 open; 2 close		A
DN 20		30	1 close; 2 open		B
DN 25		40	3 open; 4 close/4 close; 1 open		C
DN 32		50			
Type of handle		Substitute	Handle colour		Substitute
Lever handle kit		B	White		W
Latching handle kit		C	Black		B
Latching handle + locking kit		D	Red		R
			Yellow		Y

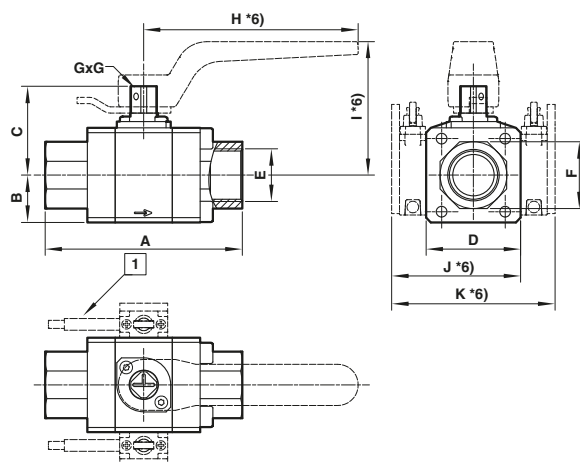
Dimensions

Dimensions in mm
 Projection/First angle



Inline series

1



1 1 m free length

Inline ball valves without monitoring

Series	Size	A	B	C	D	E	F	GxG	H *6)	I *6)	J *6)	K *6)
VT20-41X-XXXX	DN 15	84	20	39	40	G1/2" - 15	28	12x12	82	59	-	-
VT30-61X-XXXX	DN 20	114	26	44	55	G3/4" - 18	36	12x12	114	68	-	-
VT40-81X-XXXX	DN 25	124	30	54	60	G1" - 20	42	14x14	135	82	-	-
VT50-A1X-XXXX	DN 32	140	40	62	79	G1 1/4" - 20	55	18x18	155	90	-	-

*6) Dimensions with levers and monitoring

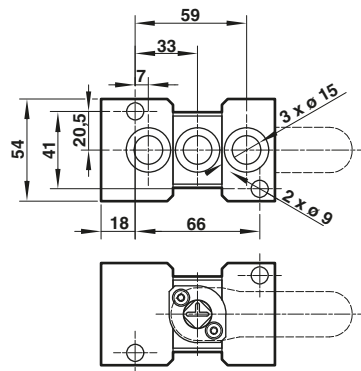
Inline ball valves with monitoring

Series	Size	A	B	C	D	E	F	GxG	H *6)	I *6)	J *6)	K *6)
VT20-4XX-XXXX	DN 15	84	20	43	40	G1/2" - 15	28	12x12	82	63	70	100
VT30-6XX-XXXX	DN 20	114	26	48	55	G3/4" - 18	36	12x12	114	72	77	99
VT40-8XX-XXXX	DN 25	124	30	56	60	G1" - 20	42	14x14	135	84	82	104
VT50-AXX-XXXX	DN 32	140	40	66	79	G1 1/4" - 20	55	18x18	155	94	101	123

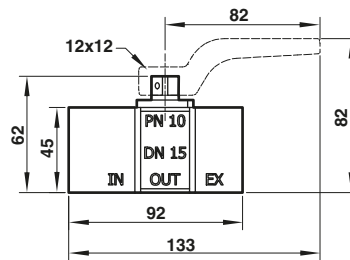
*6) Dimensions with levers and monitoring

VT20-N series

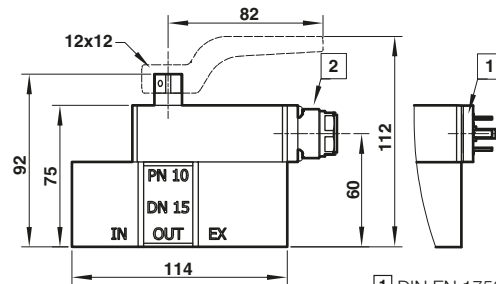
2



without monitoring



with monitoring



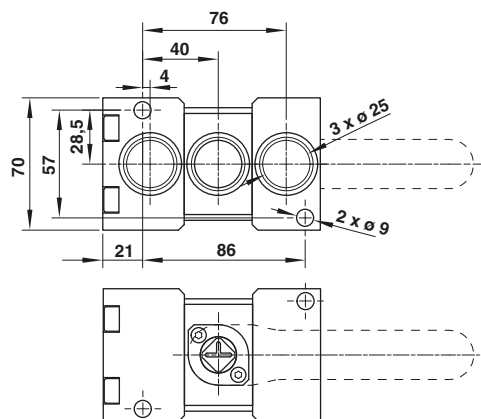
- 1 DIN EN 175301-803 (DIN 43650) Form A
2 DIN EN 175201-804 (DIN 43651)

Dimensions in mm
Projection/First angle

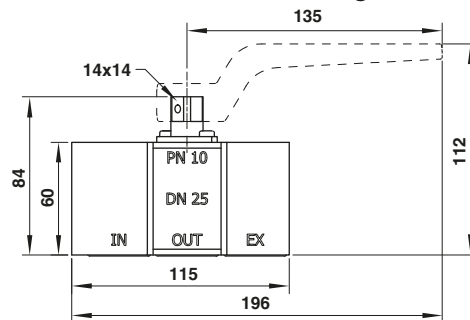


VT40-N series

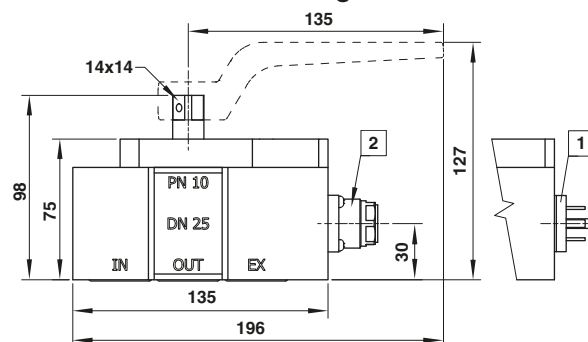
3



without monitoring



with monitoring



- 1 DIN EN 175301-803 (DIN 43650) Form A
2 DIN EN 175201-804 (DIN 43651)

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.