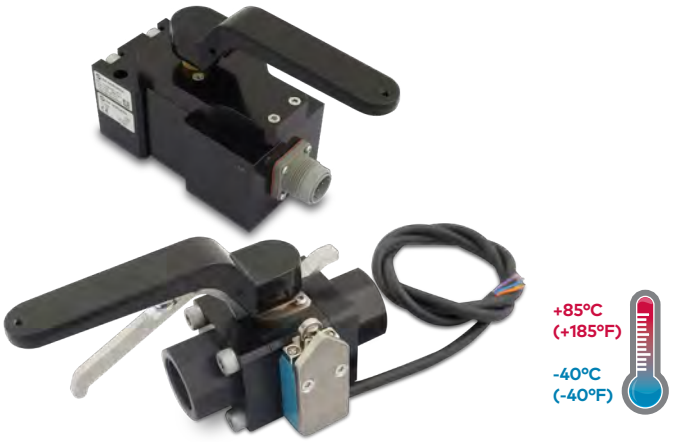
VT 20 ... 50
Ball valves

- 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
- 3/2 vented ball valve design



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

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

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)

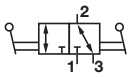
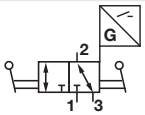
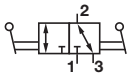
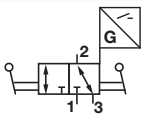
Monitoring options:
Open position, Close position
Open/close position,
Open/open position *2),
Close/close position *2)
*2) Interface version with two switches, Inline version with DPDT switch

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, 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		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		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) *5)
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.
*5) Functions are met for the period of lifetime, which was defined by tests of this standard.

Electrical parameters

Inline valve with position switch Switching element:
Mircoswitch 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 appropricate 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

VT★★-★★★-★2★★

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

Other handle position available upon request

Thread type	Substitute
PTF	A
ISO Rc	B
G thread	G
No thread *6)	N

Handle	Substitute
No handle	N
Lever handle	
Black	J
Latching handle	
Black	P
Other handle colour option available upon request	

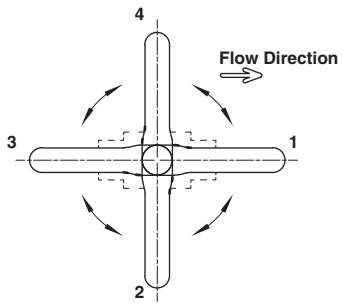
Port and locking	Substitute
Inline 3/2	
No Lock	F
Lock closed and open *7)	H
Inline 2/2	
No Lock	G
Lock closed and open *7)	A
Interface 3/2	
No lock	D
Lock closed and open *7)	C

*6) This option is valid for interface versions only

*7) Locking versions (H,A,C) are available with latching handle only (P)

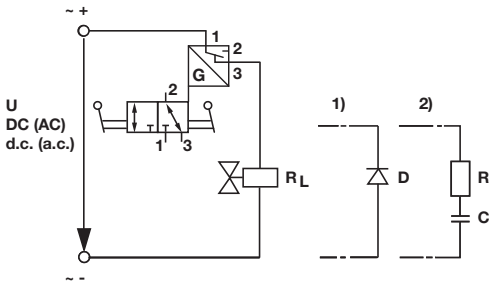
Other options available upon request

Handle position selector

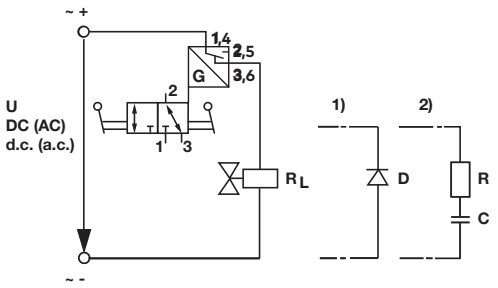


Spark quenching with d.c. voltage

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: UD ≥ 1,5 x U d.c. - 2 x U a.c.
   Rated current at diode: IN ≥ ILoad
   Selection of a quick switching diode (recovery time trr ≤ 200 ns).
2. RC link in parallel to load in parallel to switching contact.
   Suited for d.c. and a.c. voltage.
   Dimensioning principles:
   R in Ω ≈ 0,2 x RLoad in Ω
   C in [µF] ≈ ILoad in [A]

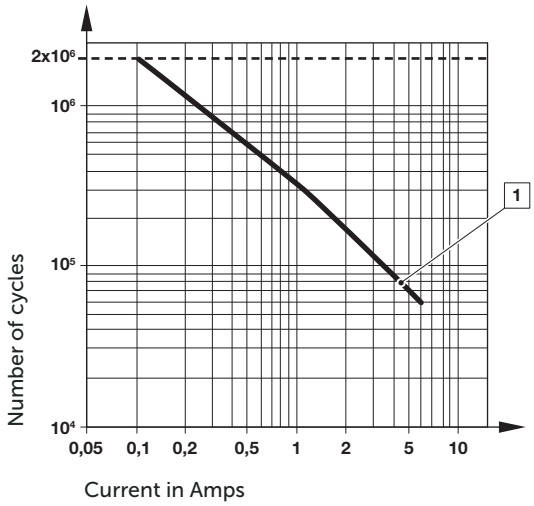


RL = Load resistance



RL = Load resistance

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

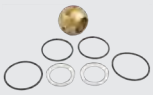


1 Resistive circuit

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		External switch kit
VT**-KITAN	VT**KITAT	VTXX-KITE *8)


*8) Available for inline version only.

Connector	
0570110	0660689


0570110	0660689

For exact PN please use the following option selectors.

Option selector – Seal kit

VT★★-KITA★

Series size	Substitute
DN 15	20
DN 20	30
DN 25	40
DN 32	50

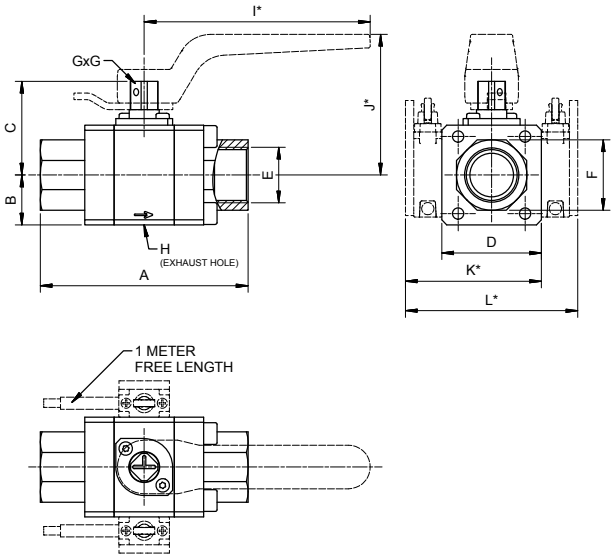
Interface	Substitute
Inline	T
Manifold	N

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*	I *1)	J *1)	K *1)	L *1)
VT20-41X-XXXX	DN 15	84	20	39	40	G1/2" - 15	28	12x12	Ø5	82	59	-	-
VT30-61X-XXXX	DN 20	114	26	44	55	G3/4" - 18	36	12x12	Ø6,5	114	68	-	-
VT40-81X-XXXX	DN 25	124	30	54	60	G1" - 20	42	14x14	Ø6,5	135	82	-	-
VT50-A1X-XXXX	DN 32	140	40	62	79	G1 1/4" - 20	55	18x18	Ø9	155	90	-	-

Inline ball valves with monitoring

Series	Size	A	B	C	D	E	F	GxG	H *6)	I *1)	J *1)	K *1)	L *1)
VT20-4XX-XXXX	DN 15	84	20	43	40	G1/2" - 15	28	12x12	Ø5	82	63	70	100
VT30-6XX-XXXX	DN 20	114	26	48	55	G3/4" - 18	36	12x12	Ø6,5	114	72	77	99
VT40-8XX-XXXX	DN 25	124	30	56	60	G1" - 20	42	14x14	Ø6,5	135	84	82	104
VT50-AXX-XXXX	DN 32	140	40	66	79	G1 1/4" - 20	55	18x18	Ø9	155	94	101	123

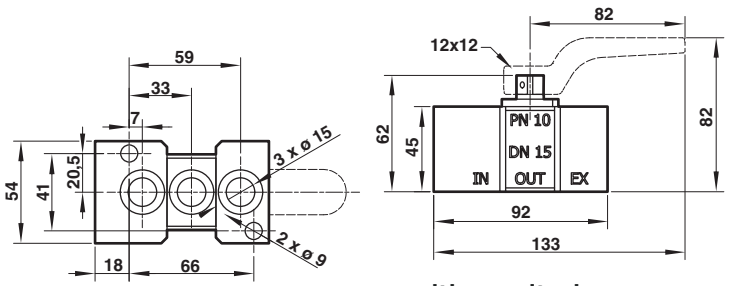
* Exhaust port not threaded

*1) Dimensions with levers and monitoring

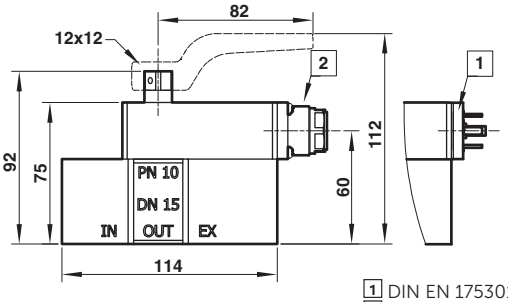
VT20-N series

2

without monitoring



with monitoring

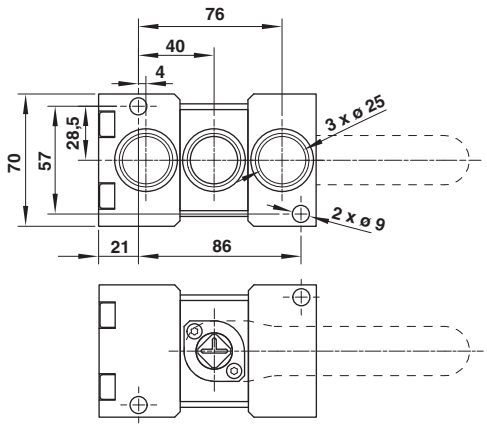


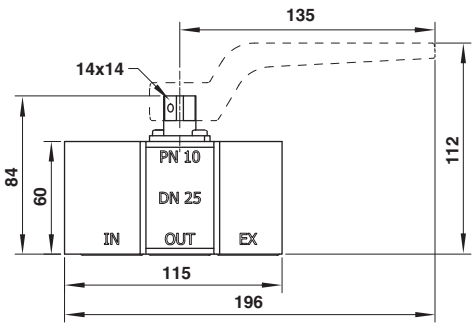
1 DIN EN 175301-803 (DIN 43650) Form A
2 DIN EN 175201-804 (DIN 43651)

VT40-N series

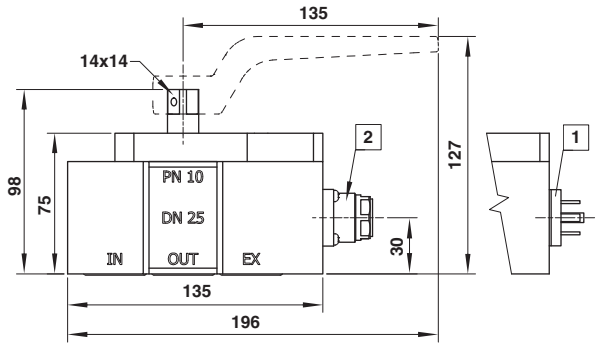
Dimensions in mm
Projection/First angle

without monitoring



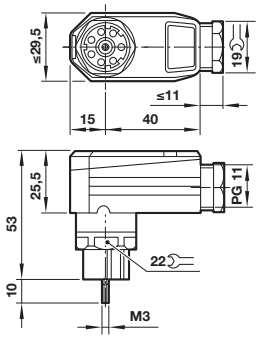


with monitoring



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

Connector: 0660689



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 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.