

Agilent Aluminum Block Valves - Series 26

NW 16 - NW 40 ISO-KF Flange

Data sheet

Agilent Valves by **VAT**

Thank you for choosing Agilent Valves by VAT. With the combination of these two well-known names in the Vacuum industry, we are confident that Agilent Valves by VAT will meet your most demanding vacuum control needs. The valves are available in manually-operated and pneumatically-operated versions. The pneumatic valve is also available with a position indicator. The position indicator delivers an electrical output signal when the valve cycles, and is user-set in either the normally-open or normally-closed position.



Cycles until first service	with manual actuator	with closing spring
	10 000	3 million
Maximum temperature		
– Valve body	≤ 150 °C	
– Manual and pneumatic actuator	≤ 120 °C	
– Solenoid valve, position indicator	≤ 80 °C	
Material		
– Valve body – aluminum	EN AW-6060 (3.3206)	
– Plate	AISI 316L (1.4404, 1.4435)	
– Bellows	AISI 316L (1.4404, 1.4435), AISI 316 Ti (1.4571)	
Seal: bonnet, plate	FKM (Viton)	
Mounting orientation	any	
Solenoid valve	24 V DC, 115 VAC, 220 VAC; 2.5 W	
Position indicator: contact rating		
– Voltage	5–50 VAC / DC	
– Current	5–100 mA	
Valve position indication	visual (mechanical)	



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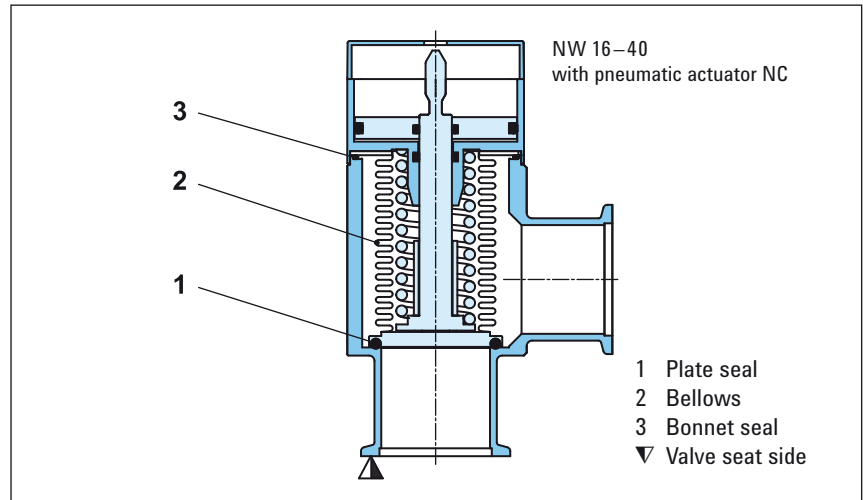
NW 16 - NW 40 ISO-KF Flange

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Features

- Body material: aluminum
- Angle and inline version
- Bellows
- Resistant against differential pressure
- Long lifetime

Functional principle



Leak rate: valve body, valve seat	$< 1 \cdot 10^{-9}$ mbar ls ⁻¹
Pressure range, series 26 (bellows)	1 · 10 ⁻⁸ mbar to 5 bar (abs)
Differential pressure on the plate	
– In opening direction	≤ 2.0 bar
– In closing direction	≤ 5.0 bar
Differential pressure at opening	≤ 1 bar

Angle valves

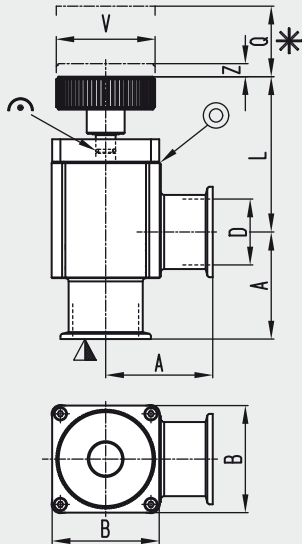
			Valve with manual actuator			Valve with pneumatic actuator, single acting with closing spring (NC)						
NW (nominal I.D.)		Conductance (molecular flow)	Turns per stroke	Weight		Compressed air min. – max. overpressure	Volume of pneumatic actuator	Closing time	Weight			
mm	inch	ls ⁻¹		Aluminum body	kg				lbs	bar	psi	l
16	5/8	5	3.6	0.20	0.44	4–8	58–116	0.004	0.0001	0.10	0.28	0.62
25	1	14	3.8	0.27	0.60	4–8	58–116	0.011	0.0004	0.20	0.41	0.90
40	1 1/2	45	4.5	0.60	1.32	4–8	58–116	0.035	0.0012	0.55	0.97	2.14

Inline valves

			Valve with manual actuator			Valve with pneumatic actuator, single acting with closing spring (NC)						
NW (nominal I.D.)		Conductance (molecular flow)	Turns per stroke	Weight		Compressed air min. – max. overpressure	Volume of pneumatic actuator	Closing time	Weight			
mm	inch	ls ⁻¹		Aluminum body	kg				lbs	bar	psi	l
16	5/8	5	3.6	0.28	0.62	4–8	58–116	0.004	0.0001	0.10	0.50	1.10
25	1	14	3.8	0.42	0.93	4–8	58–116	0.011	0.0004	0.20	0.60	1.32
40	1 1/2	45	4.5	1.00	2.20	4–8	58–116	0.035	0.0012	0.55	1.40	3.09

Dimensions

Angle valve with manual actuator
NW 16–40 (5/8"–1 1/2") ISO-KF

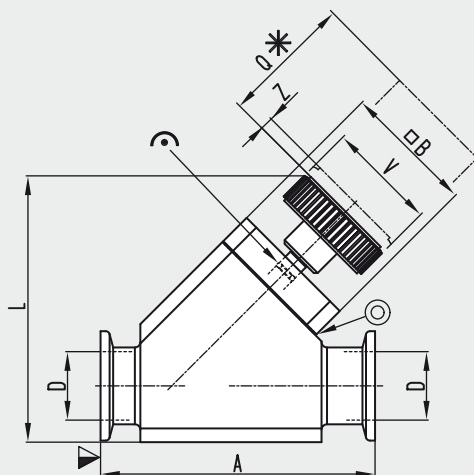


NW	mm inch	16 5/8	25 1	40 1 1/2
A	mm inch	40 1.57	50 1.97	65 2.56
B	mm inch	40 1.57	48 1.89	65 2.56
D	mm inch	16 0.63	25 0.98	40 1.57
L	mm inch	64.90 2.56	60.90 2.40	94.30 3.71
Q	mm inch	46 1.81	44 1.73	73.50 2.89
V	mm inch	40 1.57	40 1.57	60 2.36
Z ¹⁾	mm inch	3.60 0.14	4.70 0.19	7.90 0.31

¹⁾ Gate stroke is longer due to transmission

- ▼ Valve seat side
- * Required for dismantling
- ⊙ Mechanical position indication
- ⊙ Leak detection hole

Inline valve with manual actuator
NW 16–40 (5/8"–1 1/2") ISO-KF



NW	mm inch	16 5/8	25 1	40 1 1/2
A	mm inch	80 3.15	100 3.94	130 5.12
B	mm inch	40 1.57	48 1.89	65 2.56
D	mm inch	16 0.63	25 0.98	40 1.57
L	mm inch	90.60 3.57	97 3.82	143.50 5.65
Q	mm inch	46 1.81	44 1.73	73.50 2.89
V	mm inch	40 1.57	40 1.57	60 2.36
Z	mm inch	3.60 0.14	4.70 0.19	7.90 0.31

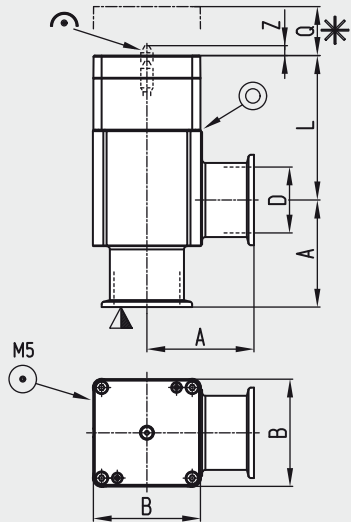
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Dimensions

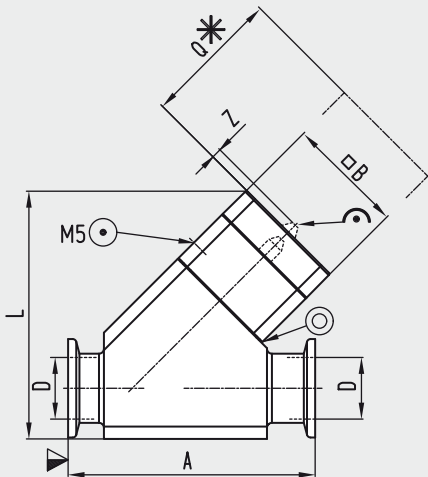
Angle valve with pneumatic actuator, single acting with closing spring
 NW 16-40 (5/8" - 1 1/2") ISO-KF



NW	mm inch	16 5/8	25 1	40 1 1/2
A	mm inch	40 1.57	50 1.97	65 2.56
B	mm inch	40 1.57	48 1.89	65 2.56
D	mm inch	16 0.63	25 0.98	40 1.57
L	mm inch	65.20 2.57	60.60 2.39	87.70 3.45
Q	mm inch	46 1.81	44 1.73	73.50 2.89
Z	mm inch	2 0.08	4 0.16	9.50 0.37

- ▽ Valve seat side
- * Required for dismantling
- ⊙ Compressed air connection
- ⊠ Mechanical position indication
- ⊗ Leak detection hole

Inline valve with pneumatic actuator, single acting with closing spring
 NW 16-40 (5/8" - 1 1/2") ISO-KF



NW	mm inch	16 5/8	25 1	40 1 1/2
A	mm inch	80 3.15	100 3.94	130 5.12
B	mm inch	40 1.57	48 1.89	65 2.56
D	mm inch	16 0.63	25 0.98	40 1.57
L	mm inch	91.50 3.60	100.30 3.95	140.90 5.55
Q	mm inch	46 1.81	44 1.73	73.50 2.89
Z	mm inch	2 0.08	4 0.16	9.50 0.37

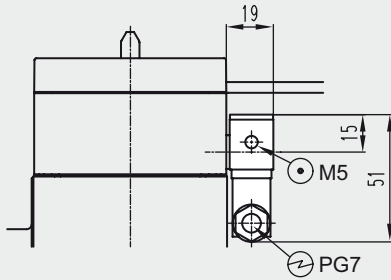
Spare parts

- **Seals**
see Operator's Manual

Solenoid valve

Solenoid valve

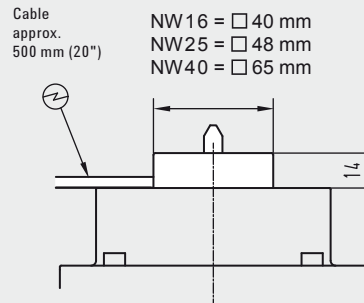
NW 16–40 (5/8" – 1 1/2")



Position indicator

Position indicator

NW 16–40 (5/8" – 1 1/2")



One closing contact each for the open and closed valve positions

Ordering information

Description: Aluminum Right Angle Block Valves Series 26	Part Number
Valve, Block, Aluminum, Right Angle, Hand-operated, NW16	X3202-60031
Valve, Block, Aluminum, Right Angle, Hand-operated, NW25	X3202-60032
Valve, Block, Aluminum, Right Angle, Hand-operated, NW40	X3202-60033
Valve, Block, Aluminum, Right Angle, Air-operated, NW16, without Solenoid	X3202-60034
Valve, Block, Aluminum, Right Angle, Air-operated, NW25, without Solenoid	X3202-60035
Valve, Block, Aluminum, Right Angle, Air-operated, NW40, without Solenoid	X3202-60036
Valve, Block, Aluminum, Right Angle, Air-operated, NW16, 115VAC	X3202-60037
Valve, Block, Aluminum, Right Angle, Air-operated, NW25, 115VAC	X3202-60038
Valve, Block, Aluminum, Right Angle, Air-operated, NW40, 115VAC	X3202-60039
Valve, Block, Aluminum, Right Angle, Air-operated, NW16, 220VAC	X3202-60040
Valve, Block, Aluminum, Right Angle, Air-operated, NW25, 220VAC	X3202-60041
Valve, Block, Aluminum, Right Angle, Air-operated, NW40, 220VAC	X3202-60042
Valve, Block, Aluminum, Right Angle, Air-operated, NW16, 24VDC	X3202-60043
Valve, Block, Aluminum, Right Angle, Air-operated, NW25, 24VDC	X3202-60044
Valve, Block, Aluminum, Right Angle, Air-operated, NW40, 24VDC	X3202-60045
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW16, without Solenoid	X3202-60051
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW25, without Solenoid	X3202-60052
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW40, without Solenoid	X3202-60053
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW16, 115VAC	X3202-60054
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW25, 115VAC	X3202-60055
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW40, 115VAC	X3202-60056
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW16, 220VAC	X3202-60057
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW25, 220VAC	X3202-60058
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW40, 220VAC	X3202-60059
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW16, 24VDC	X3202-60060
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW25, 24VDC	X3202-60061
Valve, Block, Aluminum, Right Angle, Air-operated, Position Indicator, NW40, 24VDC	X3202-60062

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NW 16 - NW 40 ISO-KF Flange

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Ordering information

Description: Aluminum Inline Block Valves Series 26	Part Number
Valve, Block, Aluminum, In-line, Hand-operated, NW16	X3202-60063
Valve, Block, Aluminum, In-line, Hand-operated, NW25	X3202-60064
Valve, Block, Aluminum, In-line, Hand-operated, NW40	X3202-60065
Valve, Block, Aluminum, In-line, Air-operated, NW16, without Solenoid	X3202-60066
Valve, Block, Aluminum, In-line, Air-operated, NW25, without Solenoid	X3202-60067
Valve, Block, Aluminum, In-line, Air-operated, NW40, without Solenoid	X3202-60068
Valve, Block, Aluminum, In-line, Air-operated, NW16, 115VAC	X3202-60069
Valve, Block, Aluminum, In-line, Air-operated, NW25, 115VAC	X3202-60070
Valve, Block, Aluminum, In-line, Air-operated, NW40, 115VAC	X3202-60071
Valve, Block, Aluminum, In-line, Air-operated, NW16, 220VAC	X3202-60072
Valve, Block, Aluminum, In-line, Air-operated, NW25, 220VAC	X3202-60073
Valve, Block, Aluminum, In-line, Air-operated, NW40, 220VAC	X3202-60074
Valve, Block, Aluminum, In-line, Air-operated, NW16, 24VDC	X3202-60075
Valve, Block, Aluminum, In-line, Air-operated, NW25, 24VDC	X3202-60076
Valve, Block, Aluminum, In-line, Air-operated, NW40, 24VDC	X3202-60077
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW16, without Solenoid	X3202-60078
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW25, without Solenoid	X3202-60079
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW40, without Solenoid	X3202-60080
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW16, 115VAC	X3202-60081
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW25, 115VAC	X3202-60082
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW40, 115VAC	X3202-60083
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW16, 220VAC	X3202-60084
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW25, 220VAC	X3202-60085
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW40, 220VAC	X3202-60086
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW16, 24VDC	X3202-60087
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW25, 24VDC	X3202-60088
Valve, Block, Aluminum, In-line, Air-operated, Position Indicator, NW40, 24VDC	X3202-60089

United States

Agilent Technologies
121 Hartwell Avenue, Lexington MA 02421, USA
Tel: +1 781 861 7200, Fax: +1 781 860 5437
Toll free: +1 800 882 7426

Europe and other countries

Agilent Technologies Italia SpA
via F.lli Varian 54, 10040 Leini, (Torino), Italy
Tel: +39 011 9979 111, Fax: +39 011 9979 350
Toll free: 00 800 234 234 00

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