



VAP016 ... 040-A/X VIP016 ... 040-A/X

Angle (VAP) and Inline (VIP) Valves Pneumatically actuated

The INFICON ISO-KF valve line, VAP / VIP016 ... 040-A/X performs as gauge isolation, bypass, roughing or venting valve and is well suited for all general high vacuum and semiconductor processes. The improved industrial design results in a rugged, compact, highly reliable valve with a low cost of ownership. The All-in-One concept means the valve is fast and easy to install and the pilot valve and electrical position indicator are integrated for convenient "plug and play" use. The proven All-in-One design and extremely long service lifetime makes this valve easy to maintain. The new line is fully compatible with the current INFICON VAP / VIP016 ... 040-A/X valve line.

ADVANTAGES

- All-in-One design for fast and easy installation; one connector for pilot valve and electrical position indicator for easiest "plug and play"
- Direct pneumatic actuation or via integrated pilot valve
- Normally open and normally closed versions available
- Electrical and visual position indicator, standard
- 10 million cycle 316L stainless steel bellows
- Easy maintenance, fast bellows and seal replacement
- Fast opening and closing time
- High conductance for fast pump down or venting
- High differential pressure resistance
- FPM sealing standard, other sealing materials available upon request
- High purity aluminum or stainless steel housing



ORDERING INFORMATION SELECTION DATA

Vacuum connection		DN 16 ISO-KF		DN 25 ISO-KF		DN 40 ISO-KF	
Aluminum housing	AISI/DIN	-/EN AW-6060		-/EN AW-6060		-/EN AW-6060	
Stainless steel housing	AISI/DIN		304/1.4301		304/1.4301		304/1.4301

ANGLE VALVE

Type	VAP016-A	VAP016-X	VAP025-A	VAP025-X	VAP040-A	VAP040-X
Without pilot valve, with position indicator	253-210	253-250	253-310	253-350	253-410	253-450
With pilot valve, with position indicator						
24 V DC (n.c.)	253-211	253-251	253-311	253-351	253-411	253-451
24 V AC / 50 ... 60 Hz (n.c.)	253-212	253-252	253-312	253-352	253-412	253-452
100 ... 115 V AC / 50 ... 60 Hz (n.c.)	253-213	253-253	253-313	253-353	253-413	253-453
200 ... 230 V AC / 50 ... 60 Hz (n.c.)	253-214	253-254	253-314	253-354	253-414	253-454
24 V DC normally open	253-215	253-255	253-315	253-355	253-415	253-455

INLINE VALVE

Type	VIP016-A	VIP016-X	VIP025-A	VIP025-X	VIP040-A	VIP040-X
Without pilot valve, with position indicator	253-230	253-270	253-330	253-370	235-430	253-470
With pilot valve, with position indicator						
24 V DC (n.c.)	253-231	253-271	253-331	253-371	253-431	253-471
24 V AC / 50 ... 60 Hz (n.c.)	253-232	253-272	253-332	253-372	253-432	253-472
100 ... 115 V AC / 50 ... 60 Hz (n.c.)	253-233	253-273	253-333	253-373	253-433	253-473
200 ... 230 V AC / 50 ... 60 Hz (n.c.)	253-234	253-274	253-334	253-374	253-434	253-474
24 V DC normally open	253-235	253-275	253-335	253-375	253-435	253-475

SPECIFICATIONS

Cycle life	Mio cycles	10		10		10	
Conductance for molecular flow							
Angle valve	l/s	5		14		45	
Inline Valve	l/s	2.5		7		20	
Tightness	mbar l/s	1 x 10 ⁻⁹		1 x 10 ⁻⁹		1 x 10 ⁻⁹	
Operating pressure min. / max.	mbar / bar	1 x 10 ⁻⁸ / 2		1 x 10 ⁻⁸ / 2		1 x 10 ⁻⁸ / 2	
Pressure, max. (absolute)	bar	5		5		5	
Pressure difference							
In closing direction	bar	5		5		5	
In opening direction	bar	2		2		2	
Ambiance temperature	°C	0 ... +50		0 ... +50		0 ... +50	
Switching frequency	1/min	100		100		75	
Opening time	ms	100		120		260	
Closing time	ms	100		160		540	
Electrical position indicator							
Rating	V AC/VA/A V AC/VA/A	250 / 25 / 0.1 50 / 12.5 / 0.25		250 / 25 / 0.1 50 / 12.5 / 0.25		250 / 25 / 0.1 50 / 12.5 / 0.25	
Compressed air, overpressure	bar	4 ... 8		4 ... 8		4 ... 8	
Piston displacement	cm ³	4		11		35	
Mounting orientation		any		any		any	
Seals		FPM		FPM		FPM	
Weight							
Angle valve	kg	0.49	0.52	0.68	0.75	1.21	1.33
Inline valve	kg	0.56	0.89	0.78	1.35	1.41	2.2

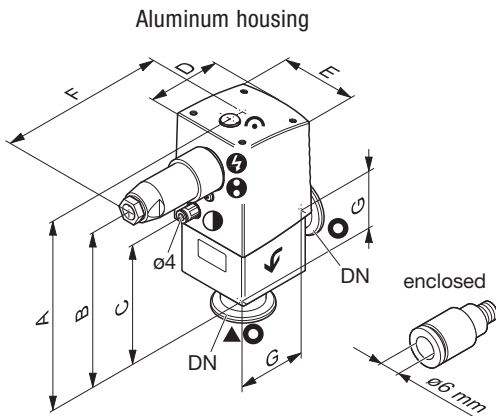
SPARE PARTS

Vacuum connection	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Seal kit O-rings for one valve	299-001	299-006	299-011
Bellows cpl. Bellows & seal kit	299-002	299-007	299-012
Cover cpl. Receptacle, visual & electrical position indicator already assembled	299-003	299-008	299-013

ACCESSORIES

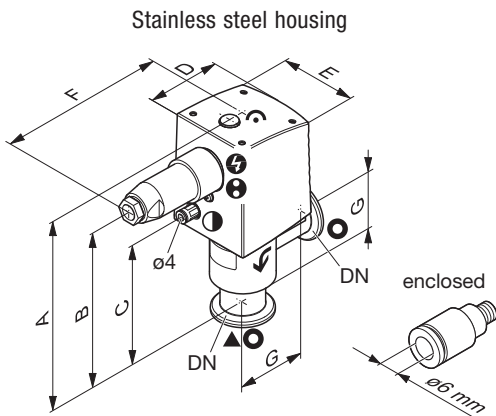
Vacuum connection	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Cable connector right angled	215-165	215-165	215-165

DIMENSIONS ANGLE VALVE



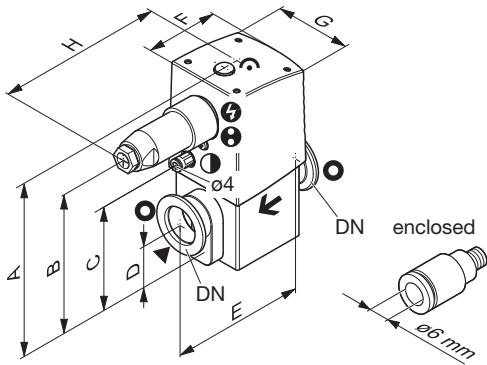
	[mm]						
DN	A	B	C	D	E	F	G
DN 16 ISO-KF	142	112.9	75.1	55	51.4	93.2	40
DN 25 ISO-KF	146.9	117.8	79	64.3	60.1	97.8	50
DN 40 ISO-KF	188.8	159.7	114.9	81.3	75.7	105.3	65

- ⊕ Compressed air connection
- ⊙ Protective lid
- ⚡ Electrical connection
- ↷ Flow direction
- ⊕ Position indicator connection
- ▼ Valve seat site
- ⤵ Visual position indicator



	[mm]						
DN	A	B	C	D	E	F	G
DN 16 ISO-KF	144.5	115.4	77.6	55	51.4	93.2	40
DN 25 ISO-KF	150.3	121.2	82.5	64.3	60.1	97.8	50
DN 40 ISO-KF	191.8	162.7	117.9	81.3	75.7	105.3	65

DIMENSIONS INLINE VALVE



- Compressed air connection
- Protective lid
- ⚡ Electrical connection
- ← Flow direction
- ⊕ Position indicator connection
- ▼ Valve seat site
- ⤵ Visual position indicator

Aluminum housing

DN	[mm]							
	A	B	C	D	E	F	G	H
DN 16 ISO-KF	133.1	104	66.2	18.7	80	55	51.4	93.2
DN 25 ISO-KF	137.6	108.5	69.7	25	100	64.3	60	97.8
DN 40 ISO-KF	177.1	148	103.2	30	130	81.2	75.7	105.3

Stainless steel housing

DN	[mm]							
	A	B	C	D	E	F	G	H
DN 16 ISO-KF	126.1	97	59.2	20	80	55	51.4	93.2
DN 25 ISO-KF	133.6	104.5	65.7	31.8	100	64.3	60.1	97.8
DN 40 ISO-KF	169.1	140	95.2	40.8	130	81.3	75.7	105.3