



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

Series 214 & 216, DN 5

Ordering No. 21.14-XE..-....

Angle and Inline Valves

Hand wheel,

Pneumatic actuator without position indicator with or without solenoid valve, single acting, opening or closing spring,

Electromagnetic without position indicator, single acting, closing or opening spring, vacuum tight.

Advantages

Manually Actuated

- Angle valve
- Spindle drive with hand wheel

Pneumatically Actuated

- Angle valves
- With and without pilot valve

Solenoid Actuated

- Angle and inline valves
- Normally closed and normally open versions



Created by: T. Eugster	Release date: 2014-12-16	1 of 4
Modified by:	Release date:	603184EB



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Ordering Information							
Selection Data							
Actuation		manual	pneumatic	el.-pneumatic	solenoid	solenoid	solenoid
Attributes		angle valve	angle valve w/o pilot valve	angle valve with pilot valve	angle valve	inline valve normally closed	inline valve normally open
Feedthrough		bellows	bellows	bellows	without	without	without
Materials							
Housing		304/1.4301	304/1.4301	304/1.4301	304/1.4301	304/1.4301	304/1.4301
Actuator		Al & plastic	anodized Al	anodized Al	-	-	-
Bellows		304/1.4301	304/1.4301	304/1.4301	-	-	-
Valve plate		304/1.4301	304/1.4301	304/1.4301	-	-	-
Guiding tube		-	-	-	303/1.4105	303/1.4105	303/1.4105
Armature		-	-	-	303/1.4105	303/1.4105	303/1.4105
Vacuum connection	mm	Ø5 / M14x1	Ø5 / M14x1	Ø5 / M14x1	Ø5 / M14x1	Ø5 / M14x1	Ø5 / M14x1
HV Angle and Inline Valve							
Valve		21614-XE01-000.	21614-XE11-000.	-	-	-	-
Normally closed		-	-	21614-XE31-000.	21414-XE64-000.	21414-XE64-AAB.	-
Normally open		-	-	-	-	-	21414-XE66-AAB.
N.C. with N.O. solenoid				21614-XE31-ACV.			
Specifications							
Service life	cycles	-	5 Mio ¹⁾	5 Mio ¹⁾	2 Mio ¹⁾	2 Mio ¹⁾	2 Mio ¹⁾
Actuation		manual	pneumatic	el.-pneumatic	solenoid	solenoid	solenoid
Leak rate	mbar l/s	1x10 ⁻⁹	1x10 ⁻⁹	1x10 ⁻⁹	1x10 ⁻⁹	1x10 ⁻⁹	1x10 ⁻⁹
Conductance for air							
Molecular flow	l/s	0.4	0.4	0.4	0.3	0.2	0.2
Laminar flow	l/s	4	4	4	3	2	2
Pressure range	mbar / bar min / max	1x10 ⁻⁸ / 4(abs)	1x10 ⁻⁸ / 4(abs)	1x10 ⁻⁸ / 4(abs)	1x10 ⁻⁸ /10(abs)	1x10 ⁻⁸ /10(abs)	1x10 ⁻⁸ /10(abs)
Differential pressure on the plate							
in closing direction	bar	4	3	3	5	5	4
in opening direction	bar	4	3	3	1.5	1.5	2
Diff. pressure at opening	bar	4 ²⁾	3 ²⁾	3 ²⁾	1 ²⁾	1 ²⁾	4 ²⁾
Compressed air, overpressure		-	4 – 8	4 – 8	-	-	-
Ambient Temperature	°C	5 ³⁾ - 70	5 ³⁾ - 80	5 ³⁾ - 40	5 ³⁾ - 40	5 ³⁾ - 40	5 ³⁾ - 40
Closing / Opening time	ms	-	35 / 35	35 / 35	7 / 30	7 / 30	30 / 10
Switching frequency	1/min	-	150	150	300	300	300
Degree of protection		-	IP 65	IP 65	IP 65	IP 65	IP 65

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Specifications							
Supply voltage	V DC	-	-	24	24	24	24
Power consumption	W	-	-	1	10	10	10
Seals		FKM	FKM	FKM	FKM	FKM	FKM
Weight		0.15	0.20	0.20	0.26	0.28	0.30

Spare Parts

Seal set	585869	586694	586694	586395	586395	586395
Spare parts set	585863	586689	586689	586391	587961	587996

Connection Elements

Type	Flange DN 10 ISO-KF	For pipe OD 1/4"	For pipe OD 6mm
Part. No.	579211	579257	579292

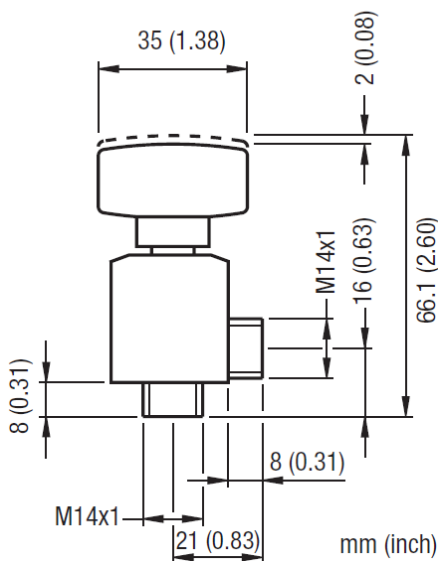
¹⁾ Cycle life tested at room temperature and under clean and static conditions. Expandable parts are excluded

²⁾ Compressed air: overpressure 4 bar

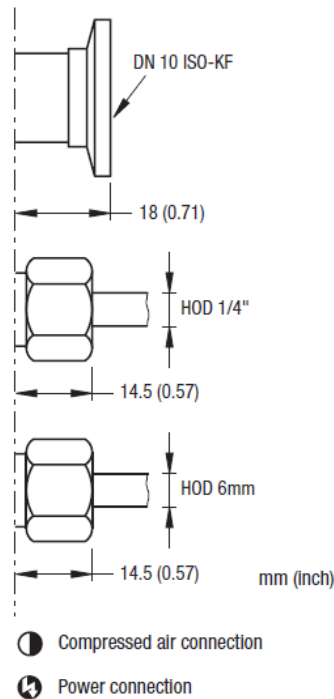
³⁾ -15°C, if the ambience is free of condensable gases

Dimensions

Manually Actuated



Connection Elements (for all valve types)



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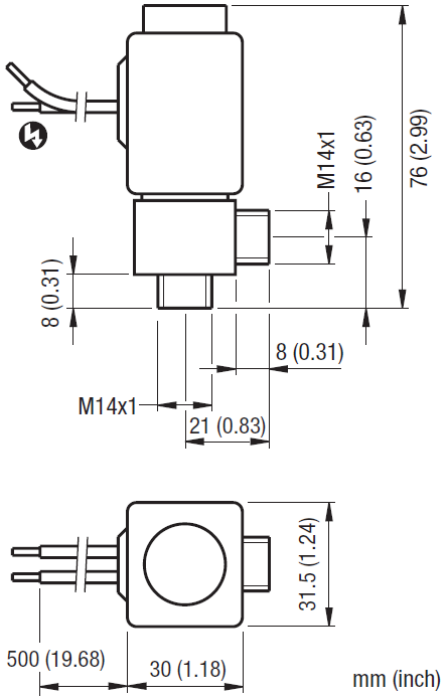
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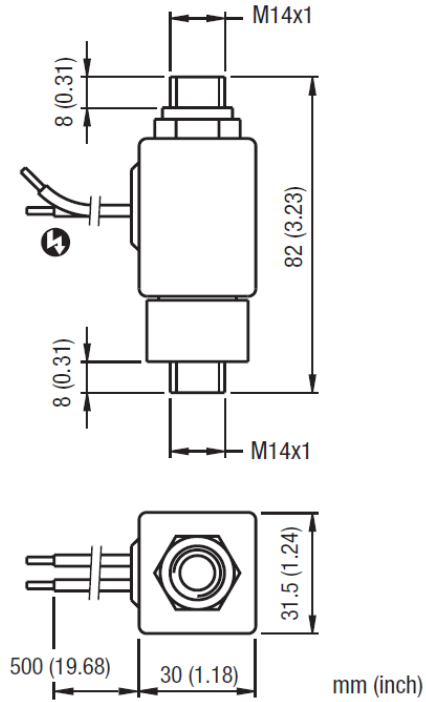
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Dimensions

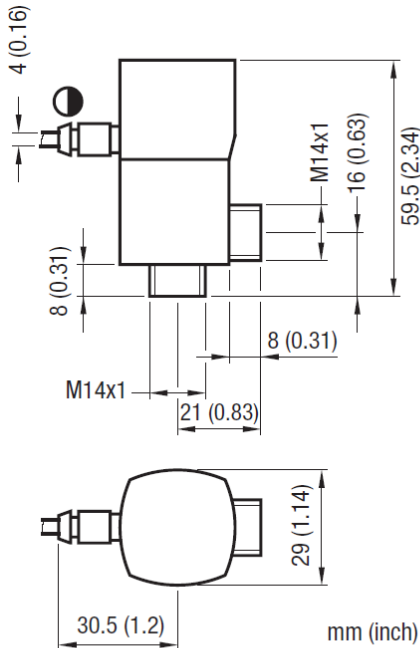
Solenoid Actuated



Solenoid Actuated Inline Valve (normally closed and normally open version)



Pneumatically Actuated



Pneumatically Actuated with Solenoid Valve

