OMAL S.p.A. Società Benefit
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ARES clamp 3A pneumatic valve

Macro Pneumatic valves

Category Angle seat valves

Subcategory ARES with special ends

features

GENERAL FEATURES:
Body valve material: A351-CF3M (316L S.S.).
Valve ends: see code plan.
Assembling is possible in all positions: upright, flat or angled.
Range available from DN 15 to DN 50 in the Double Acting versions, Spring
Return N.C. from above and below the plug, Spring Return N.O. from below the plug.
The performance and the pressure's diagrams are the same as per Standard versions but limited at PN16
On request: versions for vacuum and oxygen service 2014/34/EU ATEX configuration to request at time of order.

CONTROL MEDIA:
Driving media: compressed air, lubricated or dry, gas or neutral media.
Ambient temperature: -10°C to +60°C

OPERATING MEDIA:
Air, water, alcohol, oil, petroleum products, saline solutions, steam, etc. (as long as compatible with CF3M (316L S.S.) or PTFE).
Pressure from 0 to 16 bar (steam from 180°C, from 0 to 10 bar) depending on the size and model chosen see following pages.
Temperature from –10°C to 180°C.
Max. viscosity 600 cst (mm2/s).

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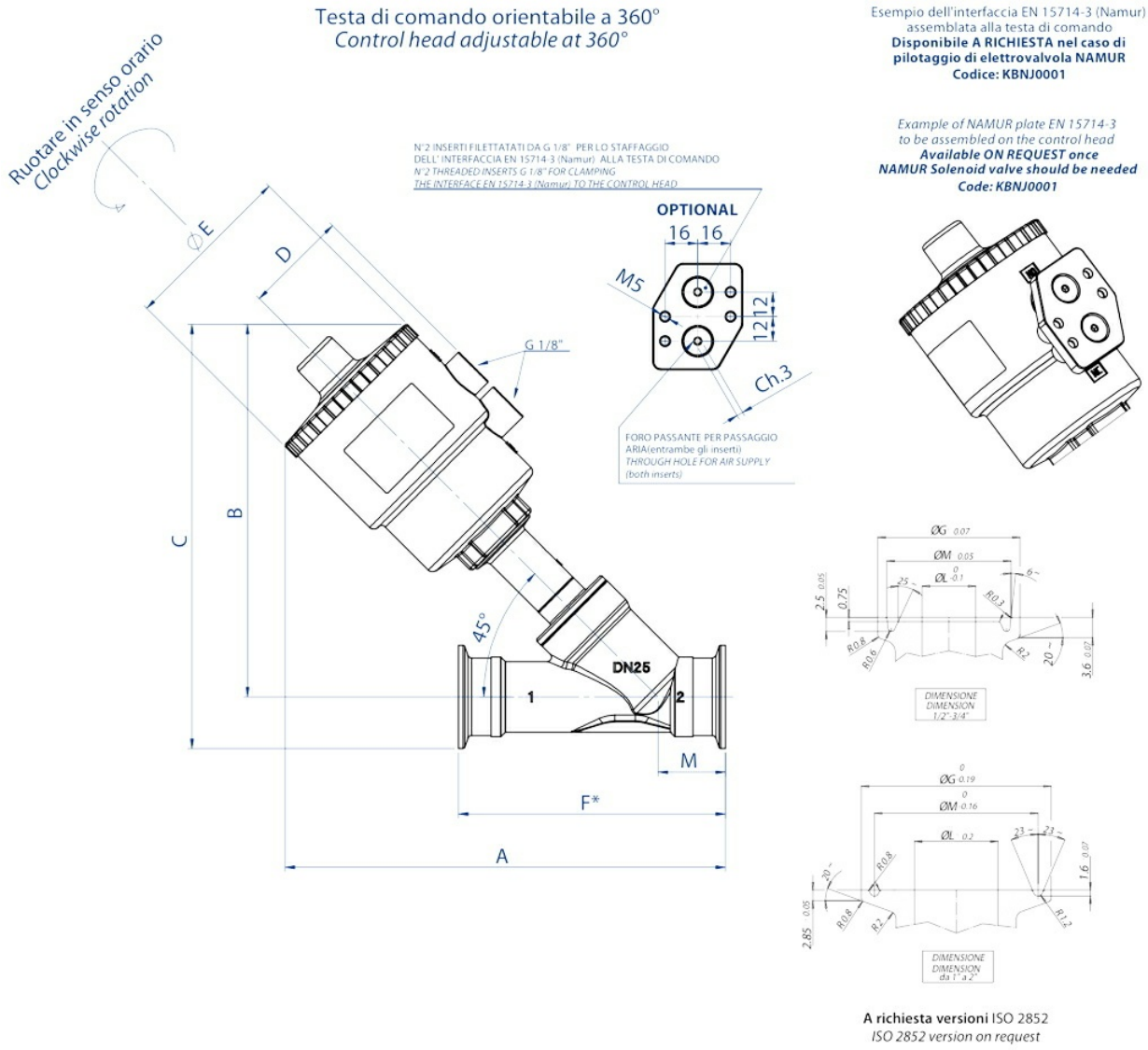
dimensions



A richiesta versioni ISO 2852
ISO 2852 version on request

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ISO 2852 version on request

Working pressure up to 16 bar (for details see diagrams).

DIMENSIONS												
Size	Control head	Bore (mm)	A	B	C	D	øE	F *	øG	øH	øL	M
1/2”	**Ø 50**	**9,5(*)**	**179**	**156**	**168,6**	**44**	**70**	**88,9**	**25,2**	**19**	**9,5**	**22**
3/4”	**Ø 50**	**15**	**181,5**	**156**	**168,6**	**44**	**70**	**101,6**	**25,2**	**19**	**15,8**	**22**
1”	**Ø 50**	**20**	**189,3**	**160**	**185,3**	**44**	**70**	**114,3**	**50,5**	**32**	**22,2**	**43,5**
1”	Ø 63	20	207,3	178	203,3	50,5	84,4	114,3	50,5	23	22,2	43,5
1”1/2	Ø 63	32	214,6	186	211,3	50,5	84,4	139,7	50,5	38	34,9	43,5
1”1/2	**Ø 90**	**32**	**254,6**	**226**	**251,3**	**66,2**	**116,4**	**139,7**	**50,5**	**38**	**34,9**	**43,5**
1”1/2	Ø 110	32	290,6	261	286,3	77,4	140,6	139,7	50,5	38	34,9	43,5
2”	Ø 63	40	224,7	190	222	50,5	84,4	158,8	64	54	47,6	56,5
2”	**Ø 90**	**40**	**264,7**	**230**	**262**	**66,2**	**116,4**	**158,8**	**64**	**54**	**47,6**	**56,5**
2”	Ø 110	40	300,7	266	298	77,4	140,6	158,8	64	54	47,6	56,5

(*) The valve bore is 15 mm, reduction to 9,5 mm is due to clamp bore
Suggested executions are in bold. Other combinations on request.

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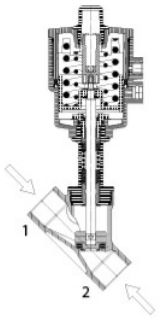
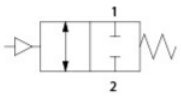
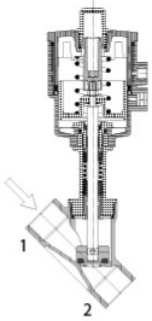
METHODS OF USE



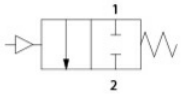
N.C. Normalmente chiusa bidirezionale. Con ingresso sotto l'otturatore si evita il colpo d'ariete.
Ingresso sopra l'otturatore per fluidi comprimibili.
N.C. Normally Closed bidirectional. With the flow coming from below the plug you avoid water hammering.
Flow from above the plug for condensable media.

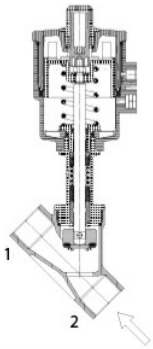




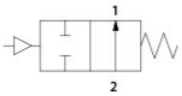
N.C. Normalmente chiusa con ingresso sopra l'otturatore.
Ingresso sopra l'otturatore per fluidi comprimibili.

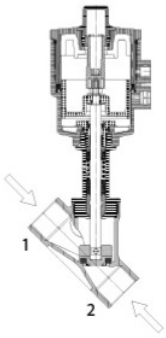
N.C. Normally Closed with the flow from above the plug.
Flow from above the plug for condensable media.



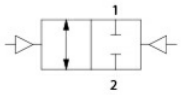


N.A. Normalmente aperta con ingresso sotto l'otturatore
N.O. Normally Open with flow from below the plug





Doppio effetto bidirezionale
Double Acting bidirectional



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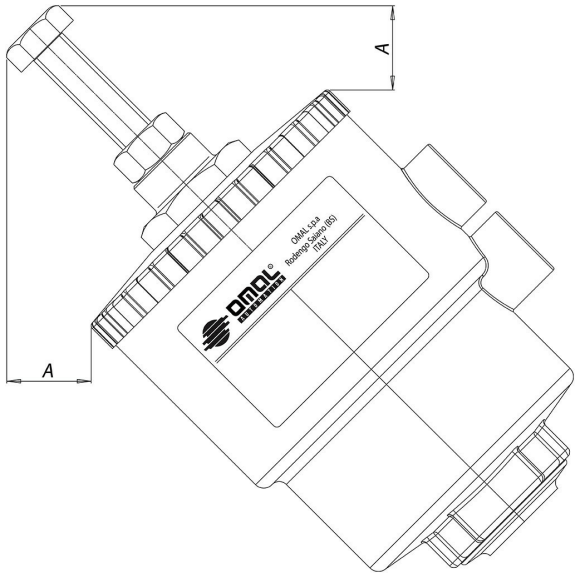
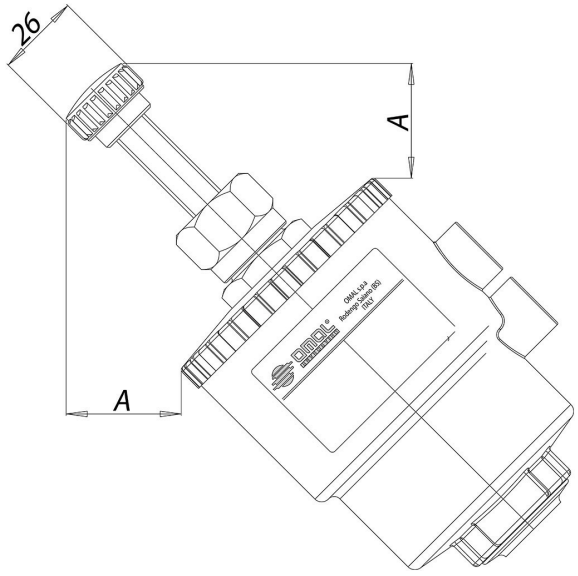
accessories



Stroke limiter
It allows to limit the plug run in opening phase, therefore it regulates the flow. Available on all versions. In spring return normally open version it can be used as an emergency control.

Control	A mm	Code
⌀ 50	25,5	KLJL0016
⌀ 63	21,5	KLJL0018
⌀ 90	5,2	KLJL0021
⌀ 110	5,9	KLJL0023

Not available with ⌀ 40 head.

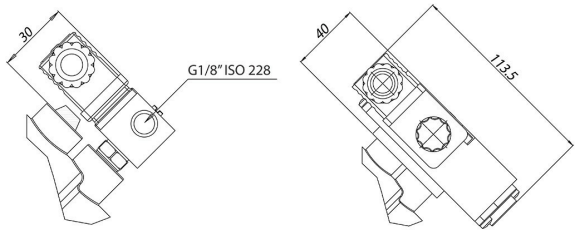


Emergency manual override
It allows to open the valve in emergency cases (lack of pilot fluid, machinery damaged, lack of piloting signal). It is available on all normally closed valves.

Control	A mm	Code
⌀ 50	35,8	KLJA0016
⌀ 63	35,8	KLJA0018
⌀ 90	29,5	KLJA0021
⌀ 110	29,5	KLJA0023

Not available with ⌀ 40 head

Electro-pilot 3/2 - Solenoid valve 3/2 - 5/2



Control solenoid valve
Electro-pilot 3/2 for direct assembling.
Body and reel positionable at 360°.
Standard manual control.
Solenoid valve (NAMUR) sets for selection between function 5/2 or 3/2, achievable by mounting the corresponding plate (both supplied).
Room temperature: from –10°c to +50°C.

Voltage	24 Vac	115 Vac	230 Vac	24 Vdc
Electro-pilot	EP415024	EP415110	EP415220	EP412024

Voltage	24 Vac	115 Vac	230 Vac	24 Vdc
NAMUR Solenoid valve*	ER8188A2	ER8188A4	ER8188A5	ER8188C2
NAMUR interface	KBNJ0001			

* To be usedy with NAMUR interface only

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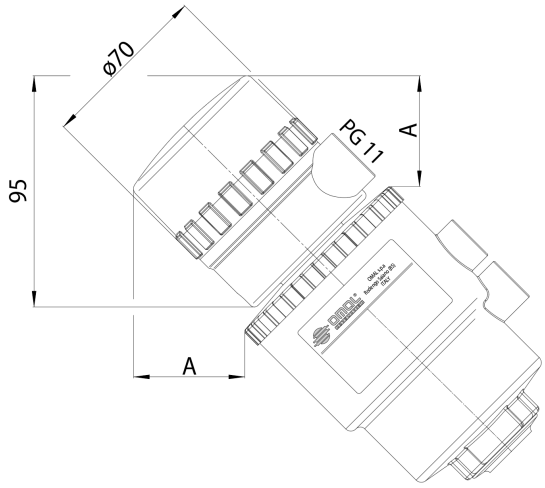
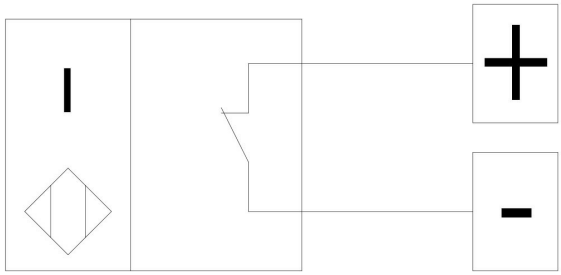
Posizione orientabile sui 360°
Positionable at 360°



Limit switch box
The control box to check the open/close positions with two mechanical limit switches is suitable for assembling on all the range of valves with actuators ø50 - ø63 - ø90 - ø110.
The terminals to connect the solenoid valve and the visual indicators provided with led are optional.
Level of protection: IP 65.
Room temperature: from –20° C to +70°C.
Access lead nr. 1 PG11.
Body material: polyamide (cap in trasparent polymethacrylate).

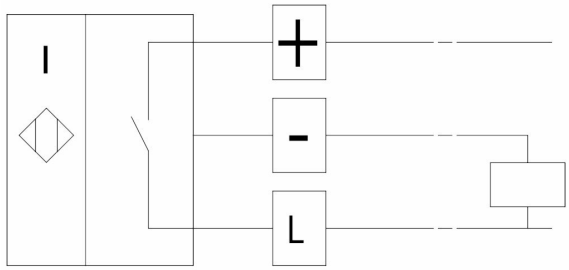
Control	A mm
ø 50	52,1
ø 63	47,5
ø 90	37,7
ø 110	29,5

AVAILABLE LIMIT SWITCH



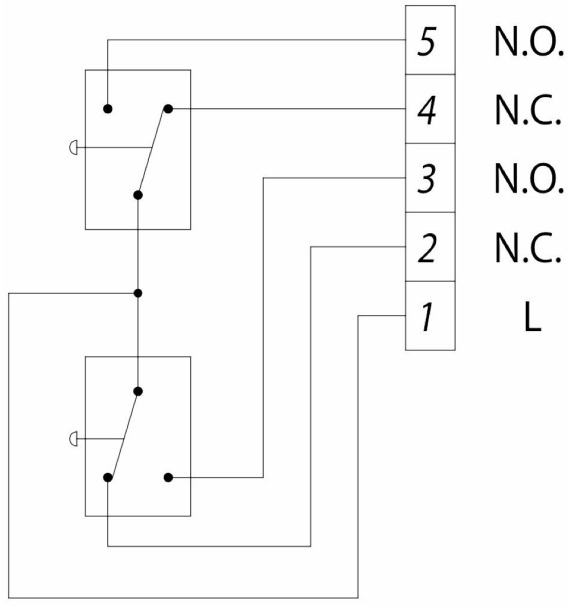
Inductive limit switches NAMUR EExia
Nominal voltage: 8 Vdc
Consumes: working ≤1mA; resting ≥3 mA
Working temperature: from –20°C to +70°C

Configuration	Code
1 Limit switch at the top: open valve	KSIN9A0xx
1 Limit switch at the bottom: close valve.	KSIN9C0xx
2 Limit switch open and close valve	KSIN920xx



Proximity limit switches
Nominal voltage: 10÷30 Vdc
Consumes: 15mA;
Working temperature: from –20°C to +70°C

Configuration	Code
1 Limit switch at the top: open valve	KSI09A0xx
1 Limit switch at the bottom: close valve.	KSI09C0xx
2 Limit switch open and close valve	KSI0920xx



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Mechanical limit switches
Limit switch at the top: open valve
Limit switch at the bottom: close valve
Max. capacity: 5A 250 Vac; 1A 250 Vdc

Configuration	Code
2 Limit switch	KSM0C20xx

xx = Ø control heads
16 = Ø50
18 = Ø63
21 = Ø90
23 = Ø110

documents

Istruzioni

ISTRUZIONI USO 8_0843

Certificati

PED