

ZEUS pneumatic valve



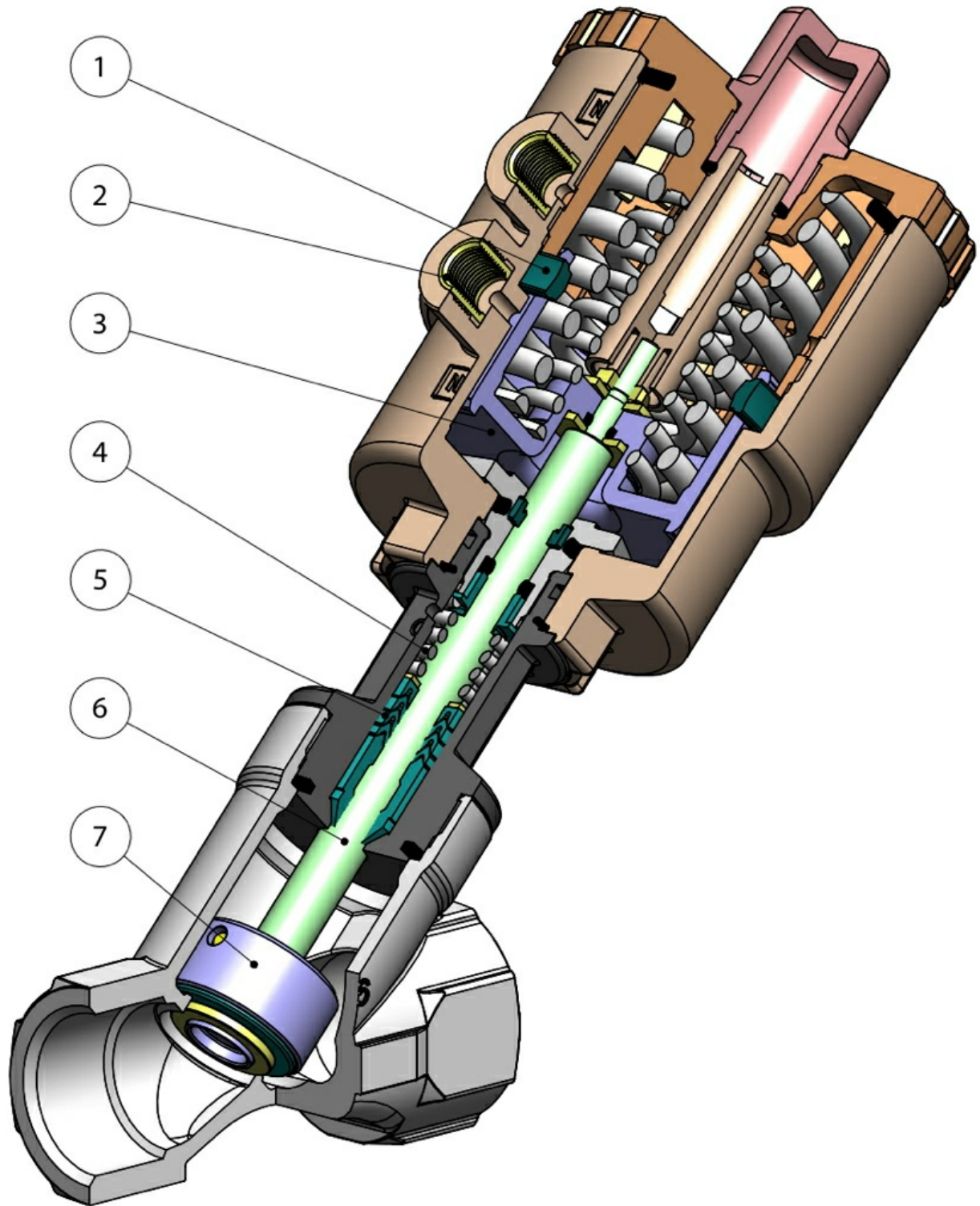
Macro [Pneumatic valves](#)

Category [Angle seat valves](#)

Subcategory [ZEUS](#)

benefits

ZEUS



1.Seal placed in the cylinder rather than on the piston

Longer stroke of the actuator and shutter will be achieved, granting higher flow rate (less flow loss)
Less wear of the seal

2.Piloting head inserts in 303 S.S.

Increases considerably the corrosion resistance caused by external agents.

3.Starting from DN63 metal piston with CHEMICAL NICKEL coating (10-15 micron)

Reduces the wear of the piston due to the achievement of a greater surface hardness (700-750 HV)

4.Seals pre-loaded by spring

Guarantee of the recovery of the gap due to the wear caused by the sliding of the shaft avoiding leakage towards the outside part.
Allow to maintain energized the "chevron" seals (V) compensating the dimensional changes even in case of huge temperature excursions

5.CHEVRON seals (V shape) with 4 seals in the lower part

It ensures a perfect tightness even after a high number of cycles

6.Rolled shaft

Less wear of the seals due to the low roughness (0,1 micron Ra) which facilitate the sliding of the shaft

7.Oscillating / self-aligning shutter

It fits perfectly to the valve body ensuring the maximum tightness

ATEX Certificate

Installation is allowed in a potential explosive environment

PED Certificate

Full compliance with European Safety Standards for Pressure Equipment

features

GENERAL FEATURES:

Threaded valve ends, as per EN 10226-1 Rp (ex ISO 7/1) for Ares valves; ISO 228/1 for Zeus valves. Other types available on request.

Assembling is possible in all positions: upright, flat or angled.

Range available from 3/8" to 2" in the Double Acting versions, Spring Return N.C. from above and below the plug, Spring Return N.O. from below the plug.

According to 2014/68/EU "PED".

2014/34/EU ATEX configuration to request at time of order.

The variations in the actioning of the valve, the several combinations and the possibility to intercept the fluid from above or below the plug, originate multiple versions of the automatic valve.

In the table below are indicated the standard versions with the main parameters.

On the basis of the kind of valve and the variations of pressure ΔP that must be intercepted, the necessary control pressure can be individuated, and consequently, the code for the corresponding valve.

On request: versions for vacuum and oxygen service.

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 A 351 CF8M O CuSn5Zn5Pb5-B).

Pressure from 0 to 16 / 25 bar (steam from 180°C, from 0 to 10 bar) depending on the size and model chosen (see following pages).

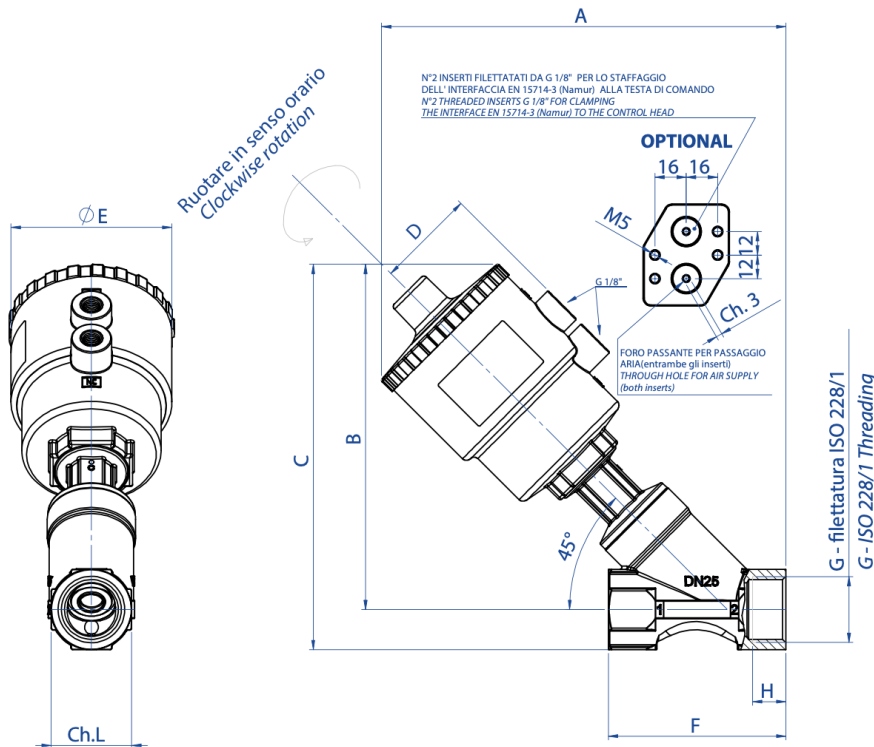
Temperature from -10°C to 180°C.

Max. viscosity 600 cst (mm²/s).

dimensions

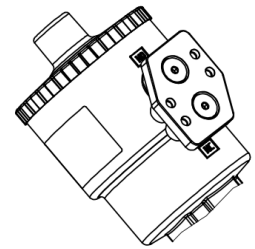
ZEUS

Testa di comando orientabile a 360°
 Control head adjustable at 360°



Esempio dell'interfaccia EN 15714-3 (Namur) assemblata alla testa di comando
Disponibile A RICHIESTA nel caso di pilotaggio di elettrovalvola NAMUR
Codice: KBNJ0001

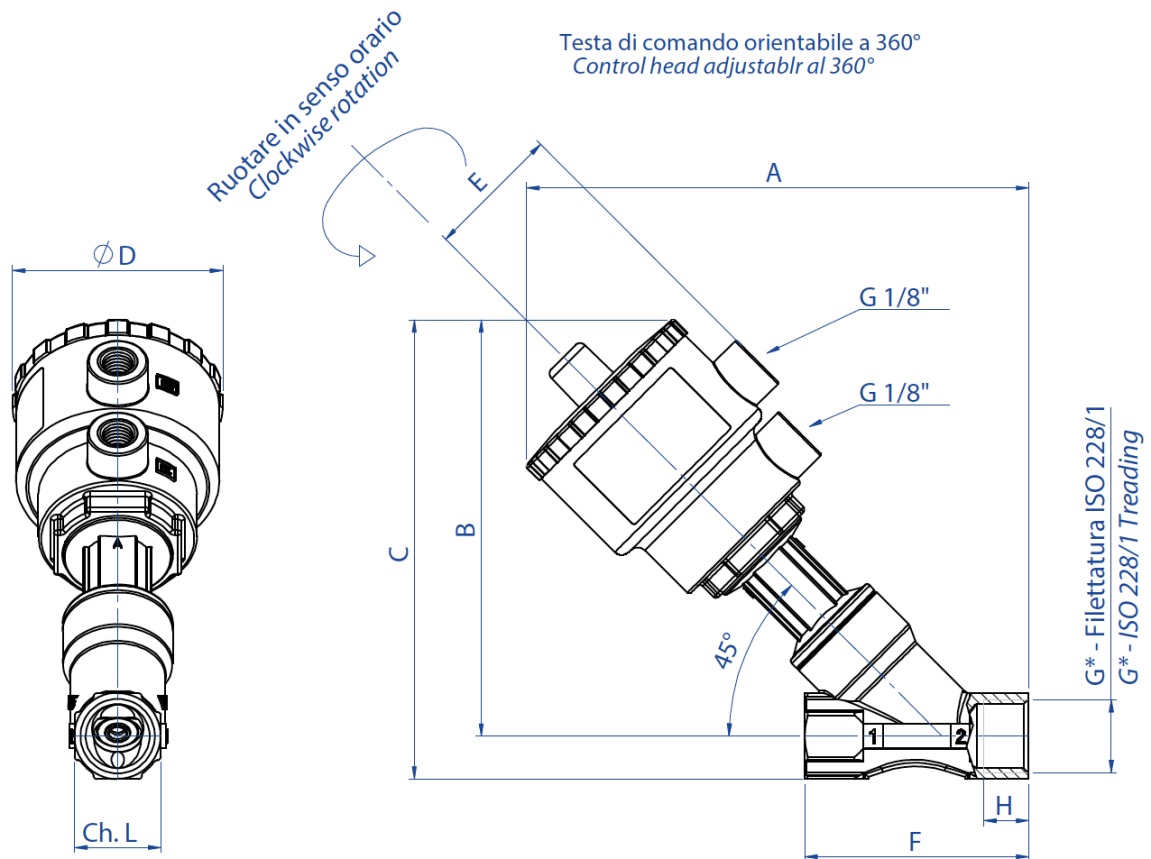
Example of NAMUR plate EN 15714-3 to be assembled on the control head
Available ON REQUEST once NAMUR Solenoid valve should be needed
Code: KBNJ0001



ZEUS DIMENSIONS

DN [mm]	G * [inch]	Actuator	A	B	C	D	øE	F	ch. L	H
15	3/8"	Ø 50	166	143	157	44	70	65	27	12
15	1/2"	Ø 50	166	143	157	44	70	65	27	11
20	3/4"	Ø 50	174	149	165	44	70	75	33	14
20	3/4"	Ø 63	193	167	184	51	85	75	33	14
25	1"	Ø 50	188	159	180	44	70	90	41	17
25	1"	Ø 63	206	172	193	51	85	90	41	17
25	1"	Ø 90	255	221	242	67	117	90	41	17
32	1 1/4"	Ø 50	197	160	186	44	70	110	50	19
32	1 1/4"	Ø 63	215	180	205	51	85	110	50	19
32	1 1/4"	Ø 90	267	231	256	67	117	110	50	19
32	1 1/4"	Ø 110	300	265	290	78	141	110	50	19
40	1 1/2"	Ø 63	238	202	231	51	85	120	58	18
40	1 1/2"	Ø 90	270	235	264	67	117	120	58	18
40	1 1/2"	Ø 110	306	271	300	78	141	120	58	18
50	2"	Ø 63	247	206	241	51	85	150	70	20
50	2"	Ø 90	281	241	276	67	117	150	70	20
50	2"	Ø 110	317	276	311	78	141	150	70	20

* On request NPT-threading

ZEUS HEAD Ø40


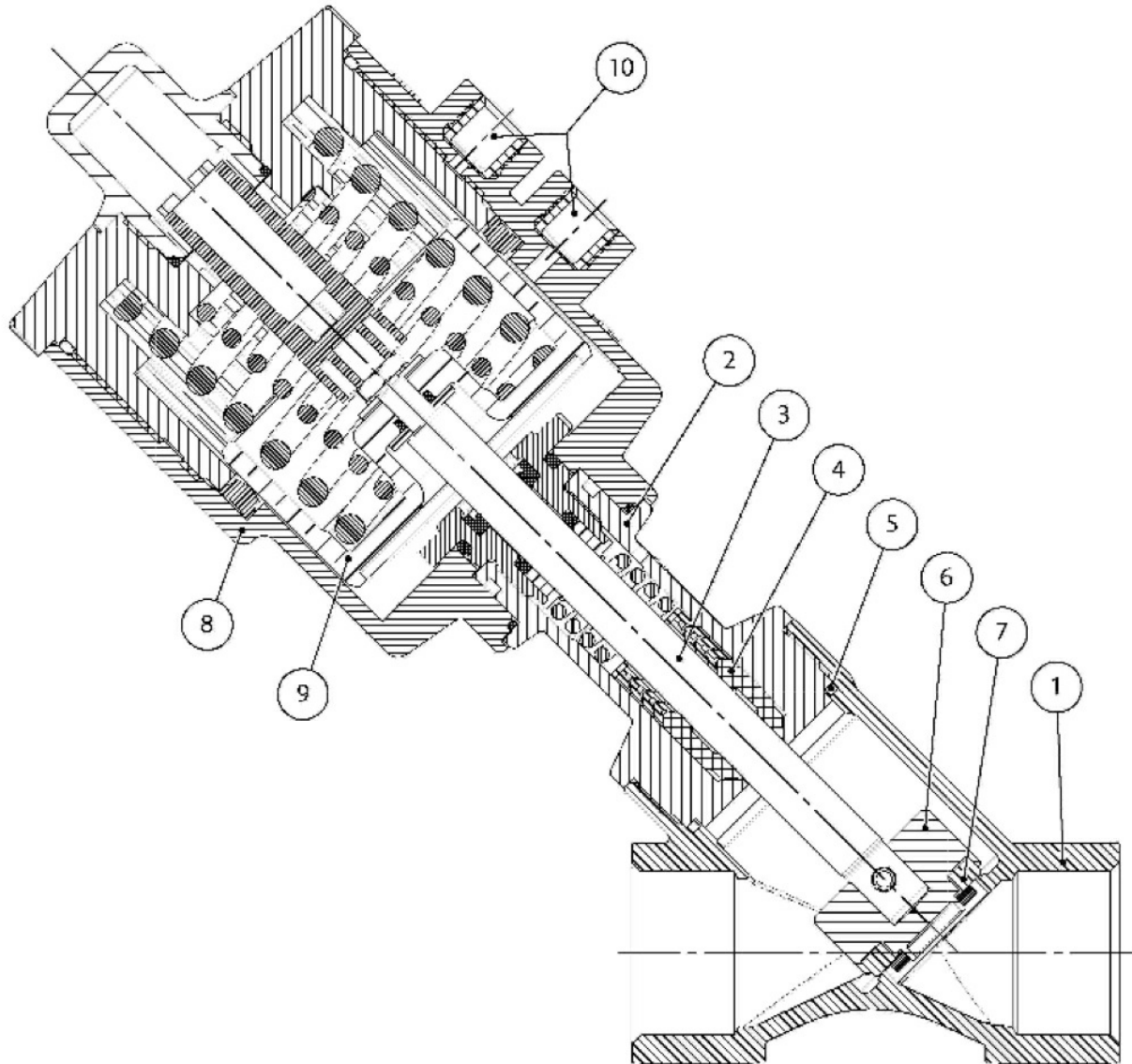
Per la testa Ø40 non è disponibile la bassetta Namur cod. KBNJ0001.
 For actuator Ø40 namur plate KBNJ0001 is not available.

ZEUS HEAD Ø 40 DIMENSIONS										
DN [mm]	C* [inch]	Actuator	A	B	C	ØD	E	F	H	ch. L
15	3/8"	Ø 40	144	121	134	61	39	65	12	27
15	1/2"	Ø 40	144	121	134	61	39	65	11	27
20	3/4"	Ø 40	151	128	143	61	39	75	14	33

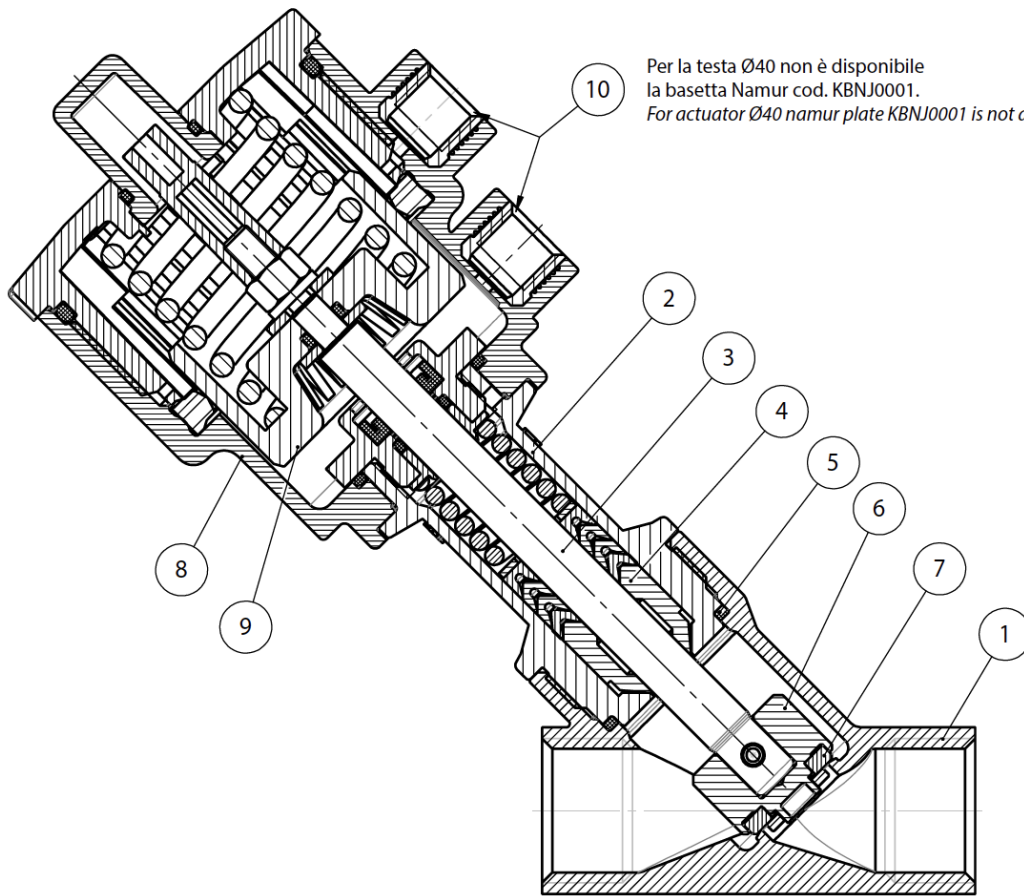
* On request NPT-threading

materials

ZEUS



N°	ZEUS MATERIALS	
1	Valve body	Bronze CuSn5Zn5Pb5-B
2	Sleeve	Brass EN 12165 CW617N
3	Stem	316L S.S.
4*	Stem seals	PTFE-CF
5*	Body seal	GRAPHITE
6	Plug	316L S.S.
7	Plug seal	PTFE
8	Actuator cylinder	Poliamide PA 66 + GF 30%
9	Piston	Brass chem-nickel (PBT + GF 20% head ø50)
10	Threading inserts	303 S.S.
	Namur plate (OPTIONAL)	PA66 + GF30%, brass inserts
* For high purity application are allowable stem seals in virgin PTFE and body seals in Peek		

ZEUS HEAD Ø40


Per la testa Ø40 non è disponibile
 la bassetta Namur cod. KBNJ0001.
 For actuator Ø40 namur plate KBNJ0001 is not available.

ZEUS HEAD Ø40 MATERIALS		
N°		
1	Valve body	Bronze CuSn5Zn5Pb5-B
2	Sleeve	Brass EN 12165 CW617N
3	Stem	316L S.S.
4*	Stem seals	PTFE-CF
5*	Body seal	GRAPHITE
6	Plug	316L S.S.
7	Plug seal	PTFE
8	Actuator cylinder	Poliamide PA 66 + GF 30%
9	Piston	PBT + GF 20%
10	Threading inserts	303 S.S.
* For high purity application are allowable stem seals in virgin PTFE and body seals in Peek		

diagrams and breakaway torque

ZEUS

Diagramma pressione/temperatura
Temperature/pressure diagram

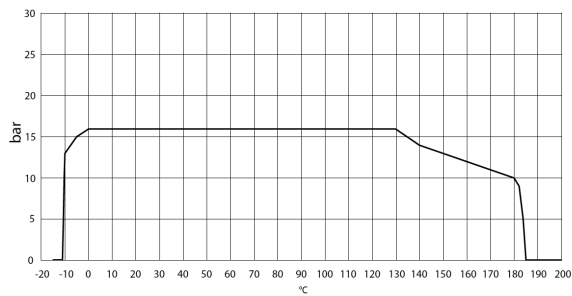
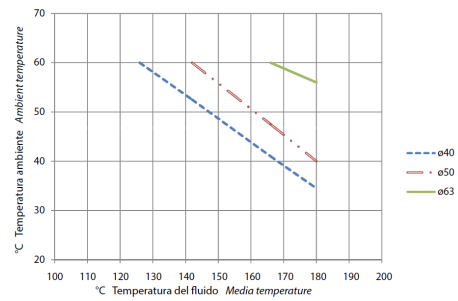


Diagramma T ambiente/T fluido intercettabile
Ambient temperature/Media temperature diagram



ZEUS HEAD Ø40

Diagramma pressione/temperatura
Temperature/pressure diagram

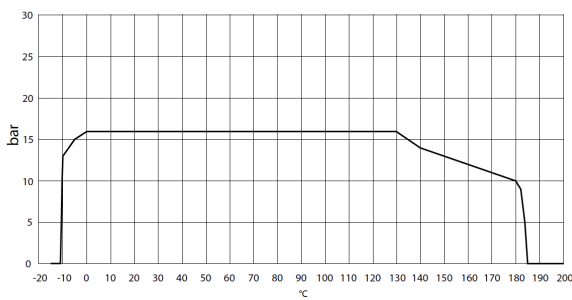
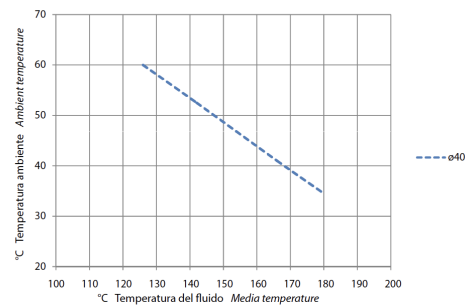
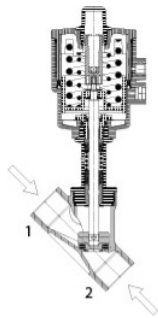


Diagramma T ambiente/T fluido intercettabile
Ambient temperature/Media temperature diagram

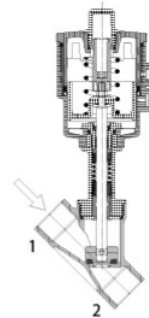
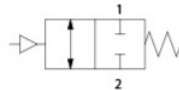


specifications

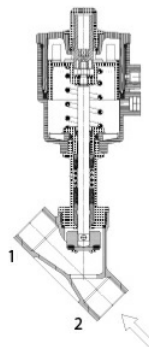
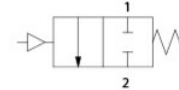
METHODS OF USE



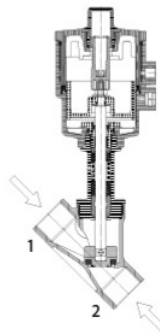
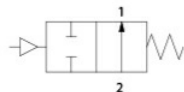
N.C. Normalmente chiusa bidirezionale. Con ingresso sotto l'otturatore si evita il colpo d'ariete.
 Ingresso sopra l'otturatore per fluidi comprimibili.
 N.C. Normally Closed bidirectional. With the flow coming from below the plug you avoid water hammering.
 Flow from above the plug for condensable media.



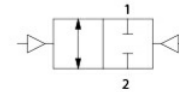
N.C. Normalmente chiusa con ingresso sopra l'otturatore.
 Ingresso sopra l'otturatore per fluidi comprimibili.
 N.C. Normally Closed with the flow from above the plug.
 Flow from above the plug for condensable media.



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

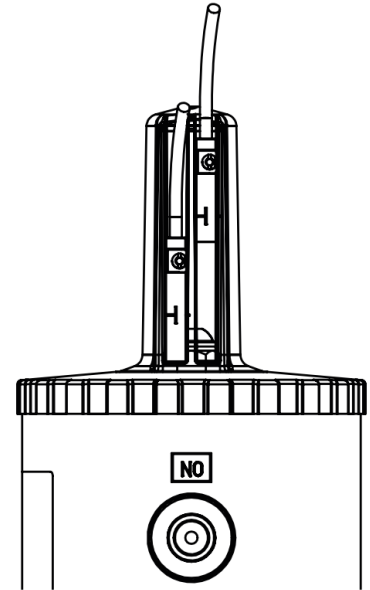
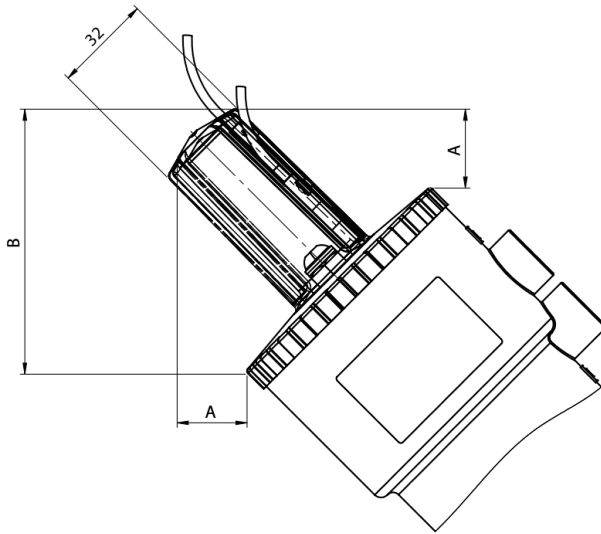


Doppio effetto bidirezionale
 Double Acting bidirectional



accessories

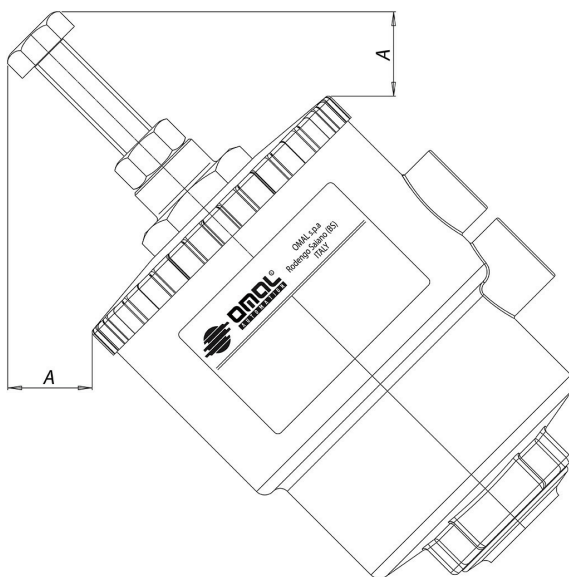
Limit switch cap



The special cap, made of transparent plastic material, has two grooves for fast attachment and adjustment of magnetic limit switches. The limit switches have an internal LED visible when the limit switch is energized. REED and HALL effect type limit switches are available with free connection or already wired M12. The cap has an IP68 protection rating. Attention: to enable proper fixing in the limit switch housing, the visual indicator, when the valve is fully open, does not reach the end of the plug. The limit switches must be set once the valve is installed in the system.

Kit code	Head size	A mm	B mm
KFJM16	∅ 50	30	77
KFJM18	∅ 63	26	87
KFJM21	∅ 90	15	97
KFJM23	∅ 110	8	107

Kit does not include limit switches.

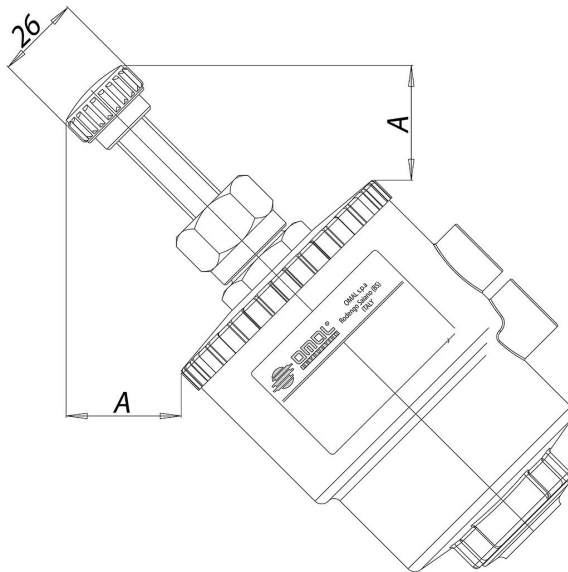


Stroke limiter

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.



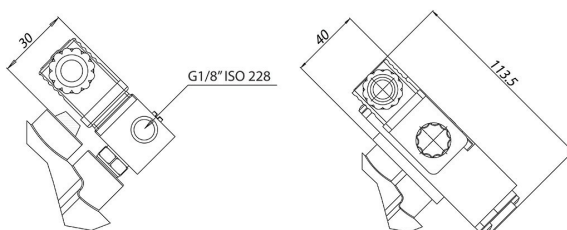
Emergency manual override

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



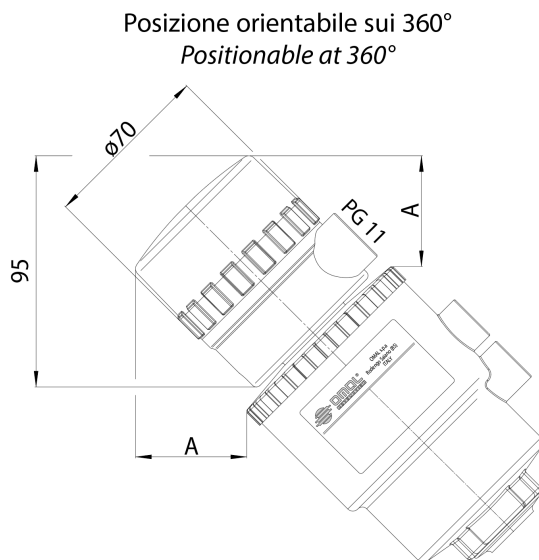
Control solenoid valve

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 Not available with ø 40 head			

* To be used with NAMUR interface only

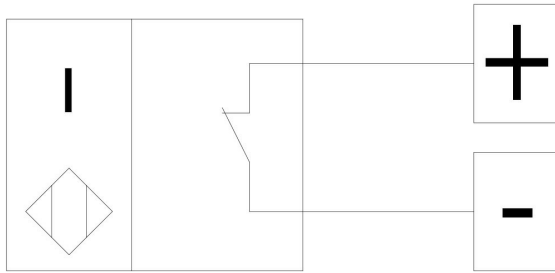


Limit switch box

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



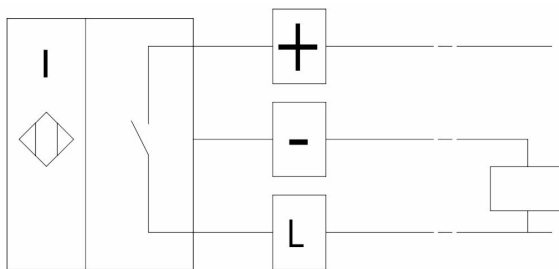
Inductive limit switches NAMUR EExia

Nominal voltage: 8 Vdc

Consumes: working $\leq 1\text{mA}$; resting $\geq 3\text{mA}$

Working temperature: from -20°C to $+70^{\circ}\text{C}$

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



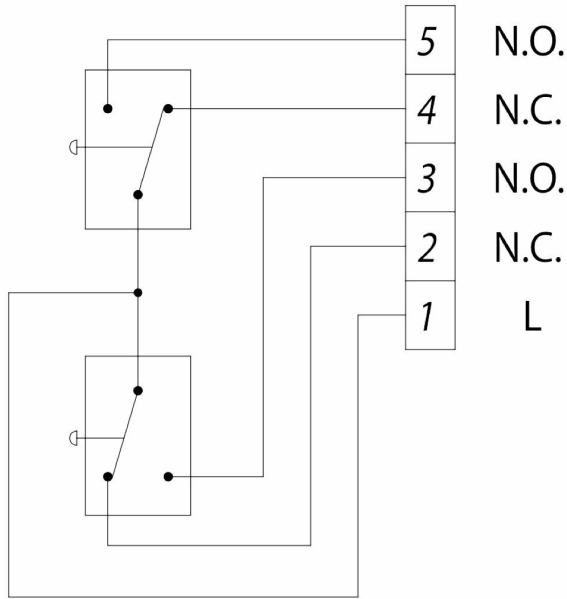
Proximity limit switches

Nominal voltage: $10\pm 30\text{Vdc}$

Consumes: 15mA ;

Working temperature: from -20°C to $+70^{\circ}\text{C}$

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



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

Certificati

[ATEX - Pneumatic Valves](#)

[PED](#)

[UKCA](#)

Istruzioni

[ISTRUZIONI USO 8_0843](#)

[ISTRUZIONI ATEX 8_0489-01](#)

[ISTRUZIONI USO UIT00A810X](#)