

spirax/sarco®

Ductile Iron Valves KEA71, KEA73

Description

A range of two port ductile iron single seat globe valves conforming to ANSI/ASTM standards in sizes 1/2" to 4" (DN15 to DN100) available with screwed or flanged connections. When used in conjunction with a pneumatic or electric linear actuator, they provide characterized modulating or on/off flow control. For close control with pneumatic actuators, a valve positioner should additionally be used.

Sizes and pipe connections

KEA71 1/2", 3/4", 1", 1-1/4" and 2" screwed NPT.

KEA73 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3" and 4" flanged ANSI I25 and ANSI 250.

Options

Trim	Equal %, linear, reduced C_v , fast opening (on/off) soft seal, hard faced, low noise and ant-cavitation.
Stem seal	PTFE chevrons or graphite packing.

Refer to TIS for further details

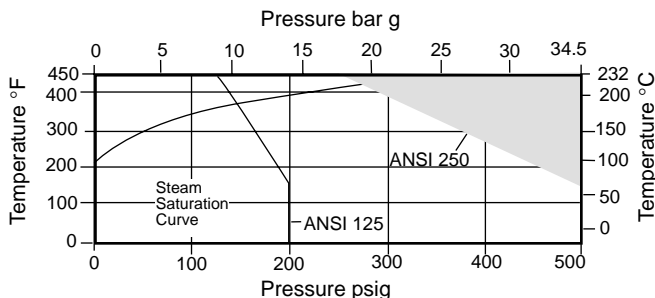
Technical data

Plug design	1/2" to 1-1/4" (ONiS to DN32)	Caged parabol
	1-1/2" to 4" (DN40 to DN100)	Vee port
Leakage	Metal-to-metal seat	ANSI/FCI 70/2 Class IV
	PTFE soft seal	ANSI/FCI 70/2 Class VI
Flow characteristic	KEA valves	Equal percentage (modulating)
	KLA valves	Linear (modulating)
	KFA valves	Fast opening (on/off)
Rangeability		50 to 1
Travel	1/2" to 2" (DN15 to DN50)	3/4" (20mm)
	2-1/2" to 4" (DN65 to DN100)	1-3/16" (30mm)

Limiting conditions

Body design conditions	ANSI 125 and ANSI 250	
Maximum design temperature	PTFF chevron seals	450°F (232°C)
	Graphite packed seals	450°F (232°C)
Minimum design temperature	14°F (-10°C)	
Maximum cold hydraulic test pressure	ANSI 125 300 psig (20.7 bar g)	
	ANSI 250 750 psig (51.7 bar g)	
Maximum differential pressures	see actuator TIS	

Operating range

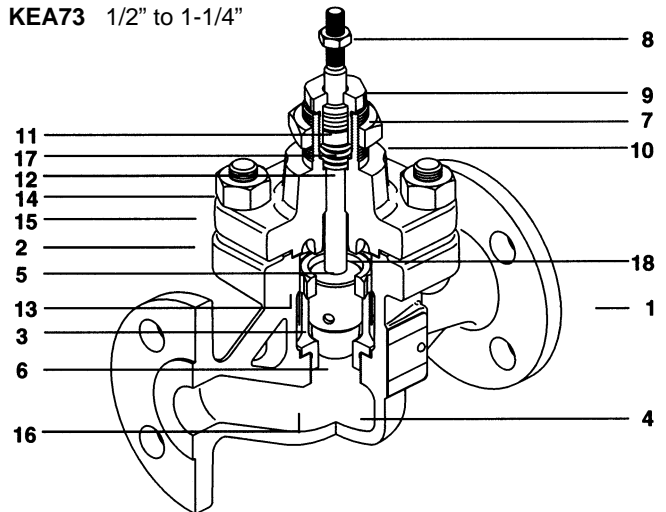


The product must not be used in this region.

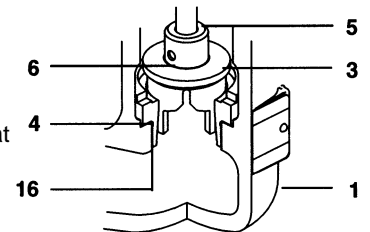
Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

In the interests of development and improvement of the product, we reserve the right to change the specification.

KEA73 1/2" to 1-1/4"



KEA
1-1/2" to 4" plug and seat



Materials

No.	Part	Material
1	Body	Ductile iron ASTM A395
2	Bonnet	Ductile iron ASTM A395
3	Valve plug	Stainless steel ASTM A276 Gr. 431
4	Valve seat	Stainless steel ASTM A276 Gr. 431
5	Valve stem	Stainless steel ASTM A276 Gr. 431
6	Pin	Stainless steel AISI 302
7	Gland nut gasket	Semi-rigid graphite laminated
8	Locknut	Stainless steel
9	Gland nut	Stainless steel ASTM A276 Gr. 431
10	Mounting nut	Mild steel zinc plated
11	Gland seals	PTFE chevrons
12	Gland spring	Stainless steel
13	Bonnet gasket	Semi-rigid graphite laminated
14	Bonnet studs	Steel ASTM A193 B7
15	Bonnet nuts	Steel ASTM A194 2H
		1/2" to 3/4" (DN15 and DN20) 3/16" UN
		1" to 2" (DN25 to DN50) 1/2" UNC
		1/2" to 4" (DN65 to DN100) 3/16" UNC
16	Seat gasket	Semi-rigid graphite laminated
17	Guide bush	Glass reinforced PTFE
18	Bonnet guide	Stainless steel AISI 440B Hardened

*Note: Part No.18 'bonnet guide' used on all valves above 1-1/2" and valves having soft seat and hard faced trims in smaller sizes.

Ductile Iron Valves KEA71 and KEA73

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Sizes and pipe connections

KEA71 1/2", 3/4", 1", 1-1/4", 1-1/2" and 2" screwed NPT.

KEA73 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3" and 4" flanged ANSI I25 and ANSI 250.

Options

Dimensions

(approximate) in inches (mm)

Valve size	A	B (ANSI 125)	B (ANSI 250)	C	D
1,2" (DN15)	6.5 (165)	7.3 (184)	7.5 (191)	3.3 (84)	1.69 (43)
3/4" (DN20)	6.5 (165)	7.3 (184)	7.6 (194)	3.4 (87)	1.7 (44)
1" (DN25)	7.8 (197)	7.3 (184)	7.8 (197)	3.8 (96)	2.0 (51)
1-1/4" (DN32)	8.5 (216)	-	-	4.0 (101)	2.3 (58)
1-1/2" (DN40)	9.3 (235)	8.8 (222)	9.3 (235)	4.0 (101)	2.5 (64)
2" (DN50)	10.5 (267)	10.0 (254)	10.5 (267)	4.2 (106)	3.0 (76)
2-1/2" (DN65)	-	10.9 (276)	11.5 (292)	5.4 (136)	-
3" (DN80)	-	11.8 (298)	12.5 (318)	5.6 (141)	-
4" (DN100)	-	13.9 (353)	14.5 (368)	6.5 (165)	-

Weights

(approximate) in pounds (kg)

Valve size	KEA41	KEA43
1,2" (DN15)	8.4 (3.8)	10.6 (4.8)
3/4" (DN20)	8.8 (4.0)	13.2 (6.0)
1" (DN25)	12.1 (5.5)	18.1 (8.2)
1-1/4" (DN32)	17.6 (8.0)	-
1-1/2" (DN40)	19.9 (9.0)	30.9 (14.0)
2" (DN50)	23.2 (10.5)	36.4 (16.5)
2-1/2" (DN65)	-	59.5 (27.0)
3" (DN80)	-	72.8 (33.0)
4" (DN100)	-	103.6 (47.0)

Sizing

For steam see TIS 1.618

Installation

The valve should be installed in a horizontal pipeline with the direction of flow arrow as indicated by the arrow on the valve body. If necessary, the actuator should be commissioned in accordance with the Installation and Maintenance Instructions supplied with the valve.

How to order

Example: 1 off 2" KEA73 C_v 42 control valve flanged ANSI 250.

Spare parts

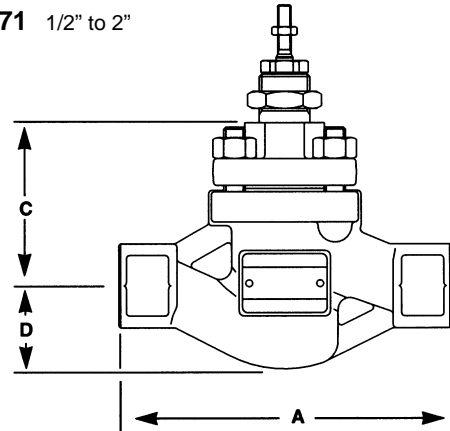
See TIS 1.430

Compatible actuators and positioners

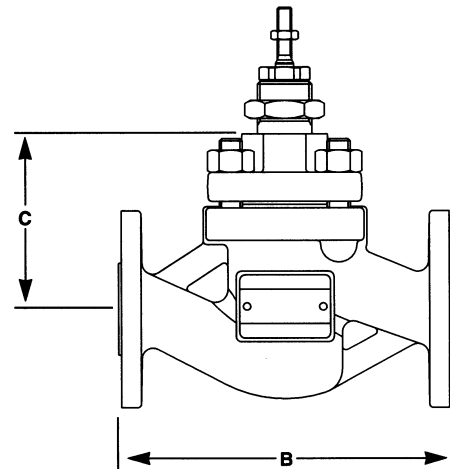
Electric	EL3S00, ELS060 and EL5600 series.
Pneumatic	PNS000, PN6000, PN7000 and PN8000 series.
Positioners	PP5 (pneumatic), EPS (electropneumatic) and Spi (smart electropneumatic).

Refer to relevant TIS for further details.

KEA71 1/2" to 2"



KEA73 2-1/2" to 4"



TIS 1.431 US 08.00