

spirax sarco

NS and NSRA Gunmetal Self-acting Control Valves

Description

The NS range of two-port valves are used in conjunction with Spirax Sarco SA control systems to provide a self-acting temperature control unit.

Available types

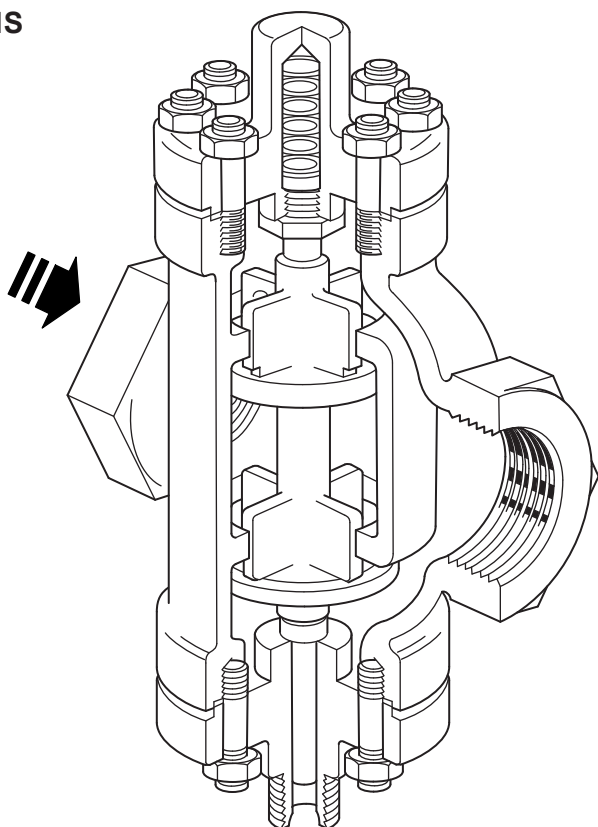
NS	Normally open, double seat
NSRA	Normally closed, double seat

Sizes and pipe connections

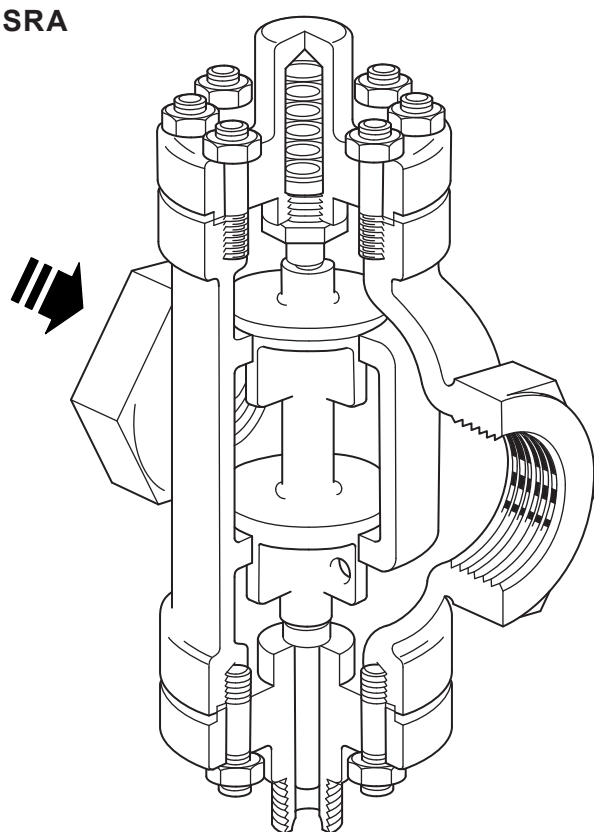
2½" and 3" screwed BSP (BS 21 parallel) (NPT to special order).

DN65 and DN80 flanged EN 1092 PN25 (ASME/ANSI 150 and BS 10 Table 'H', which meets the requirements of Table F, to special order).

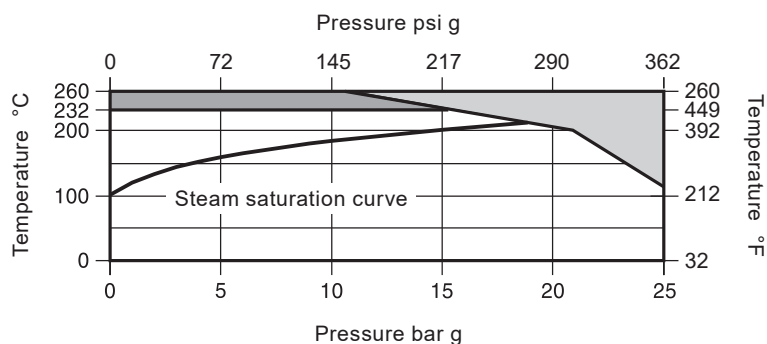
NS



NSRA



Pressure/temperature limits



The product **must not** be used in this region.

A Spirax Sarco spacer is required for use in this region. (see TI-P033-01 for further details).

Body design conditions			PN25	
Maximum design pressure			25 bar g @ 120 °C	363 psi g @ 248 °F
Maximum design temperature			260 °C	500 °F
Minimum design temperature			-200 °C	-328 °F
Maximum operating pressure for saturated steam service			17.5 bar g	254 psi g
Maximum operating temperature	With spacer		260 °C @ 10.5 bar g	500 °F @ 152 psi g
	Without spacer		232 °C @ 15.5 bar g	450 °F @ 225 psi g
Minimum operating temperature			-10 °C	14 °F
Note: For lower operating temperatures consult Spirax Sarco.				
Maximum differential pressure	NS	DN65 - 2½"	10.0 bar	145 psi
		DN80 - 3"	10.0 bar	145 psi
	NSRA	DN65 - 2½"	2.7 bar	39 psi
		DN80 - 3"	2.0 bar	29 psi
Designed for a maximum cold hydraulic test pressure of			38 bar g	551 psi g
Note: As supplied the test pressure must not exceed			25 bar g	363 psi g

Kv values

Size	DN65 - 2½"	DN80 - 3"	For conversion: Cv (UK) = Kv x 0.963 Cv (US) = Kv x 1.156
Kv	65.0	94.0	

Capacities/sizing chart

For saturated steam service see TI-GCM-08.

For water service see TI-GCM-09.

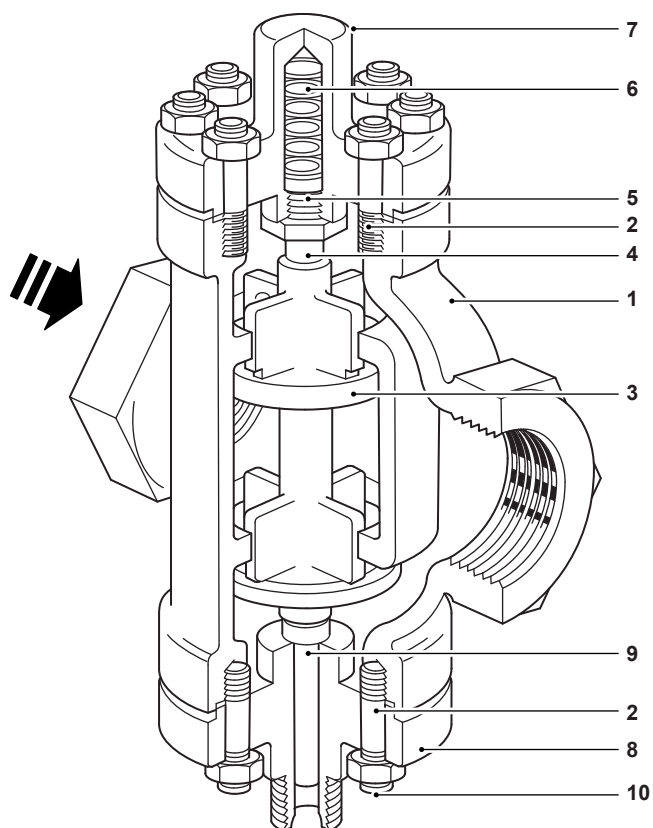
Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions supplied with the product.

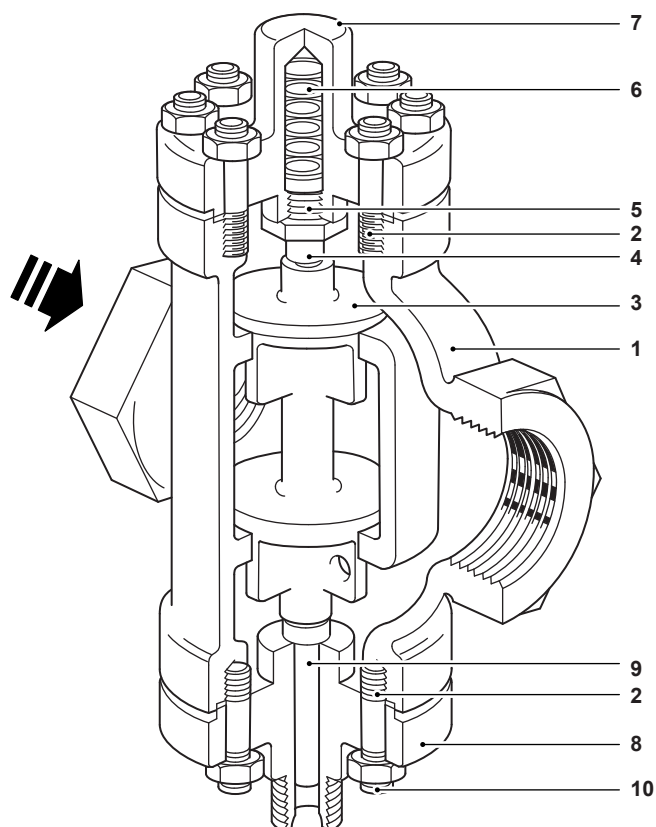
How to order

Example: 1 off Spirax Sarco 2½" NS control valve with gunmetal body and trim. Connections are to be screwed BSP.

Materials



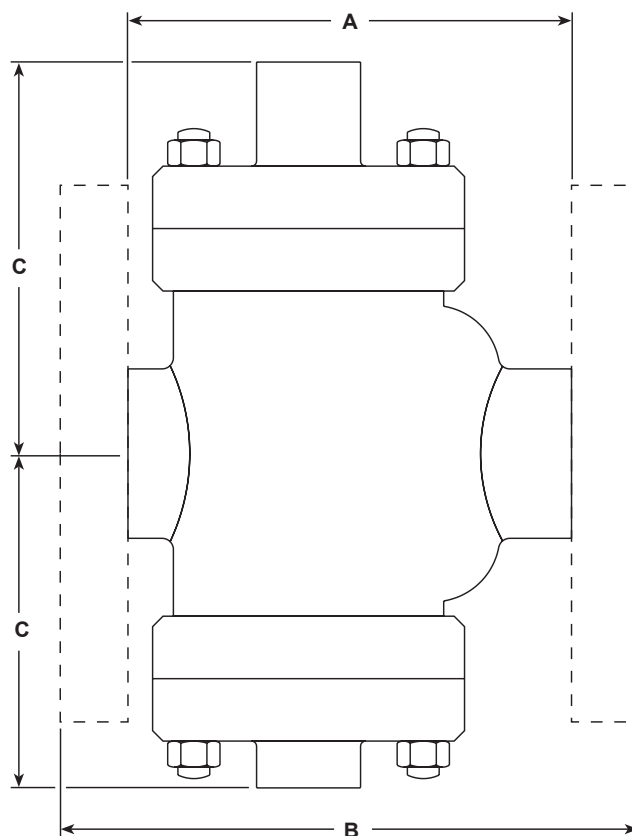
NS



NSRA

No.	Part	Material	
1	Body	Gunmetal	BS 1400 LG2
2	Body gasket	Semi-ridged graphite	BS 2815 Gr. A
3	Valve closure member	Gunmetal	BS 1400 LG2
4	Plunger	Brass	BS 2874 CZ 121
5	Plunger guide	Brass	BS 2874 CZ 121
6	Return spring	Stainless steel	BS 2056 302 S 26
7	Spring housing	Gunmetal	BS 1400 LG 2
8	Bonnet	Gunmetal	BS 1400 LG 2
9	Stem	Brass	BS 2874 CZ 121
10	Body studs	Steel	BS 4439 Gr. 8.8
	Body nuts	Steel	BS 3692 Gr. 8

Dimensions/weights (approximate) in mm (inches) and kg (lbs)



	BSP or NPT	EN 1092 PN25 ASME 150	BST F/H	Weight		
Size	A	B	B	C	Screwed	Flanged
DN65 (2½")	171 (6.73)	203 (8.0)	190 (7.48)	150 (5.90)	8.1 (18)	17.2 (38)
DN80 (3")	194 (7.64)	236 (9.29)	216 (8.50)	160 (6.30)	13.6 (30.0)	22.7 (50.0)

Spare parts

The body gaskets (see Materials item 2) are available as spares in packets of 6.

How to order spares

Example: 1 - Packet of body gaskets for a DN65 Spirax Sarco NS control valve.