



TI-P157-18
CMGT Issue 4

TCO1

Temperature Cut-out Valve

Description

The TCO1 is a temperature sensitive device fitted downstream of the steam/water mixing valve on ½" and ¾" hosedown stations. The TCO1 is only suitable for the ½" and ¾" mixing valves. This temperature cut-out valve activates at a temperature of 95 °C to limit the discharge of steam in the event of a system fault.


Available types:

- Included as standard in the hosedown station kit.
- Available as a retrofit pack supplied with 1" x ¾" and 1" x ½" reducing nipples to enable installation to either ½" or ¾" mixing valves.

Operation

The TCO1 is not resettable and the mixing valve and hose must be inspected and serviced before the temperature sensitive element of the TCO1 is replaced.

Standards

This product fully complies with the requirement of the Pressure Equipment Directive (PED) and carries the  mark when so required.

Certification

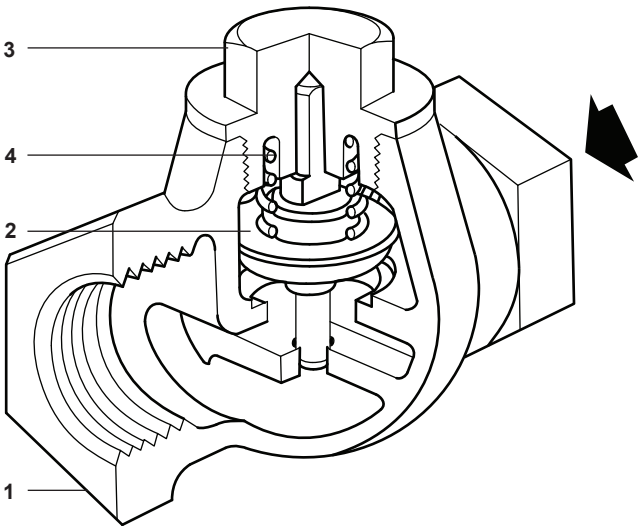
Although certification is not available manufacture of the TCO1 is in accordance with our ISO 9000 Registration.

Sizes and pipe connections

1" screwed BSP.

Materials

No.	Part	Material	
1	Body	Bronze	EN 1982 CC491K
2	Cone	Brass	BS 2874 CZ 114
3	Cap	Brass	EN 12165 CW617N
4	Spring	Stainless steel	BS 2056 EN 58A



Installation

Install the TCO1 between the hot water outlet of the mixing valve and the equal tee that houses the thermometer.

Important note: The TCO1 must be installed with the end marked 'inlet' connected to the mixing valve and the end marked 'outlet' connected to the equal tee. (These markings are stamped onto the hexagon end connections). If the valve is installed in reverse it will never be able to operate.

K_v value

1" = 8.5.

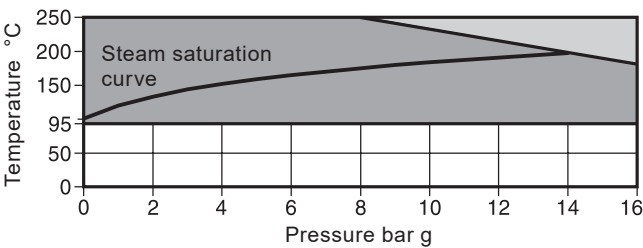
For conversion:

C_v (UK) = K_v x 0.963

C_v (US) = K_v x 1.156

Pipeline ancillaries
Hosedown stations

Pressure/temperature limits

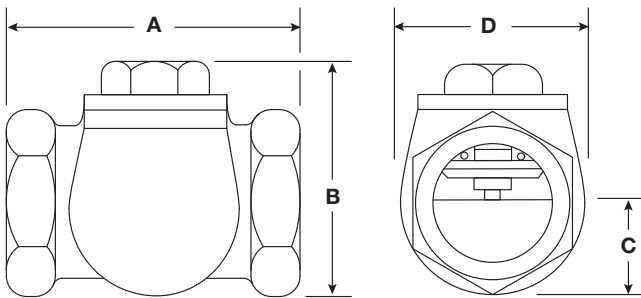


- The product **must not** be used in this region.
- The product should not be used in this region as it will activate and close the valve.

Body design conditions		PN16
PMA	Maximum allowable pressure	16 bar g @ 180 °C
TMA	Maximum allowable temperature	250 °C @ 8 bar g
Minimum allowable temperature		-29 °C
PMO	Maximum operating pressure for saturated steam service	14 bar g
TMO	Maximum operating temperature	95 °C @ 16 bar g
Minimum operating temperature		0 °C
Note: For lower operating temperatures consult Spirax Sarco.		
Designed for a maximum cold hydraulic test pressure of		28 bar g

Dimensions/weight (approximate) in mm and kg

Size	A	B	C	D	Weight
1"	86	71	28	56	0.8



How to order
Example: 1 off ½" retrofit pack for a Spirax Sarco ½" hosedown station.

Spare parts
Spare parts are available as indicated. No other parts are supplied as spares.

Available spares

Element set	2, 3, 4
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How to order spares
Always order spares by using the description given in the column headed 'Available spares' and state the size and type of valve.
Example: 1 - Element set for a Spirax Sarco 1" TCO1 temperature cut-out valve.