

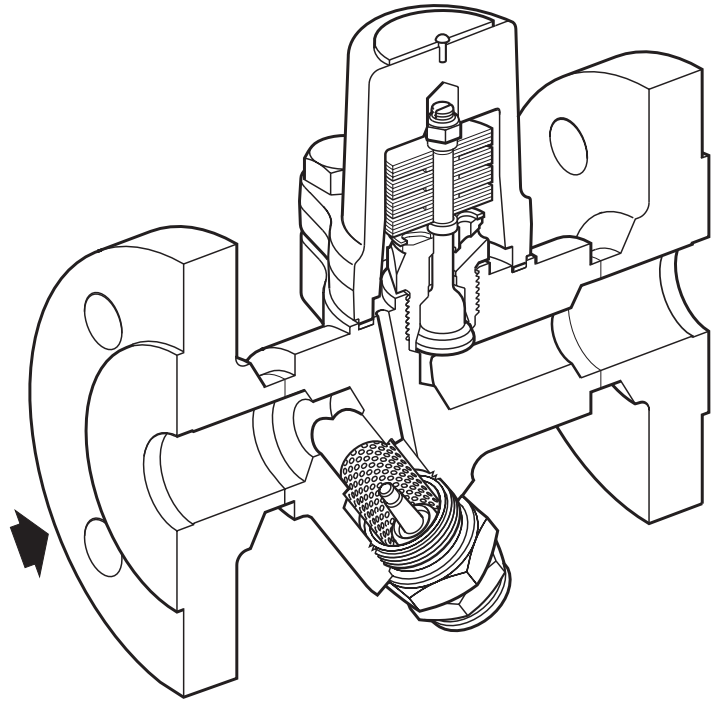
spirax sarco

ISMC32

TI-P076-11
CMGT Issue 5

Carbon Steel

Bimetallic Steam Trap with Integral Spiratec Sensor



Description

The ISMC32 is a carbon steel maintainable bimetallic steam trap fitted with an integral Spiratec sensor and straight connections and has an integral cylindrical Y-type strainer. It can be supplied with a sensor to detect waterlogging and steam leakage (WLS1) or for steam leakage only (SS1). The ISMC32 can be easily integrated into all existing Spiratec monitoring systems.

All pressure bearing components are produced by TÜV approved suppliers in accordance with AD-Merkblatt WO/TRD100.

Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with certification to EN 10204 3.1.

Note: All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

½", ¾", and 1" screwed BSP or NPT.

½", ¾", and 1" socket weld ends to BS 3799.

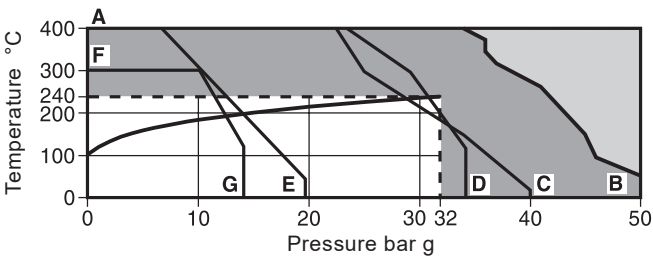
½", ¾", and 1" butt weld ends to EN 12 627.

DN15, DN20 and DN25 standard flange to EN 1092 PN40,

ANSI B 16.5 Class 150 and 300, JIS/KS 10K and JIS/KS 20K.

Steam traps
Bimetallic

Pressure/temperature limits (ISO 6552)

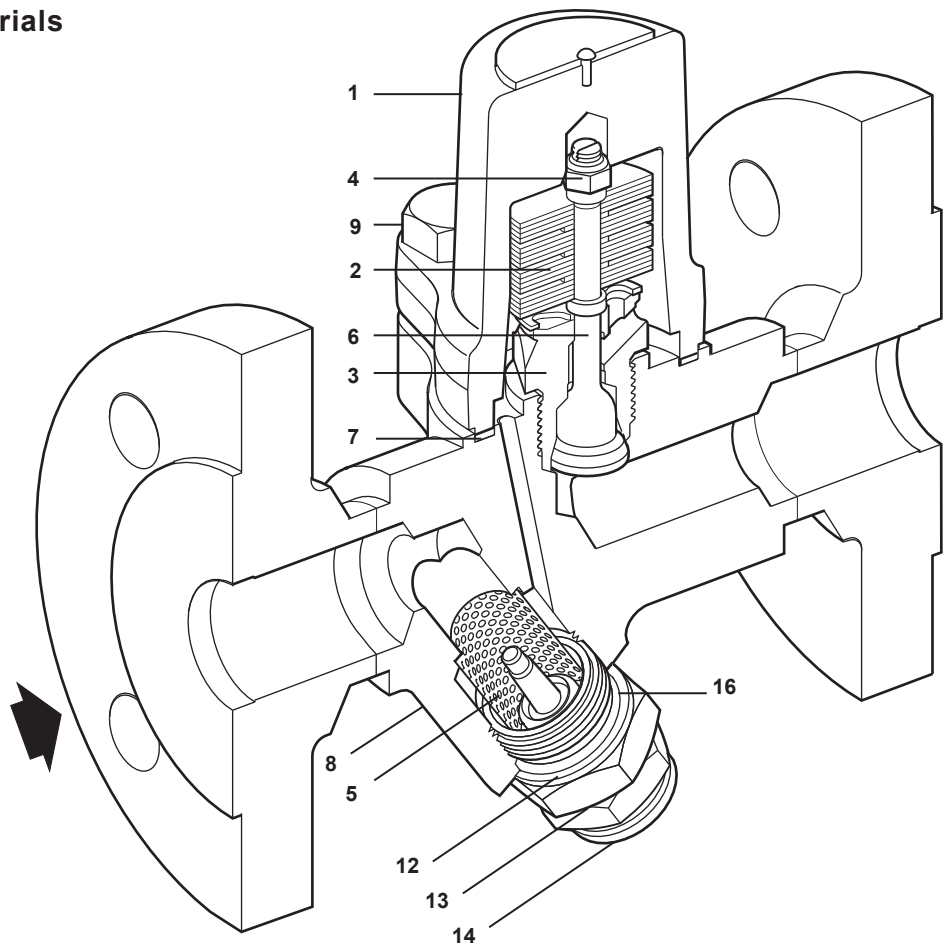


- The product **must not** be used in this region.
- The product should not be used in this region or beyond its operating range as damage to the internals may occur.

- A - B Screwed, socket weld, butt weld and flanged ANSI 300.
- A - C Flanged EN 1092 PN40.
- A - D Flanged JIS/KS 20K.
- A - E Flanged ANSI 150.
- F - G Flanged JIS/KS 10K.

| | | |
|--|--|-------------------|
| Body design conditions | | PN40 |
| PMA | Maximum allowable pressure | 50 bar g @ 50 °C |
| TMA | Maximum allowable temperature | 400 °C @ 35 bar g |
| Minimum allowable temperature | | -60 °C |
| PMO | Maximum operating pressure for saturated steam service | 32 bar g |
| TMO | Maximum operating temperature | 240 °C @ 32 bar g |
| Minimum operating temperature | | 0 °C |
| Note: For lower operating temperatures consult Spirax Sarco | | |
| Designed for a maximum cold hydraulic test pressure of | | 75 bar g |

Materials



| No. | Part | Material |
|-----|---------------------------|--|
| 1 | Cover | Carbon steel DIN 17243 C22.8 (W/S 1.0460) ASTM A105N |
| 2 | Bimetallic element | Corrosion resistant bimetal (Rau Type H46) and stainless steel |
| 3 | Valve seat | Stainless steel BS 970 431 S29 |
| 4 | Locking nut | Stainless steel |
| 5 | Strainer screen | Stainless steel AISI 304 |
| 6 | Valve | Stainless steel |
| 7 | Cover gasket | Stainless steel reinforced exfoliated graphite |
| 8 | Body/flanges | Carbon steel DIN 17243 C22.8 (W/S 1.0460) ASTM A105N |
| 9 | Cover bolts | Stainless steel (M10 x 30) A2-70 |
| 12 | Sensor adaptor | Stainless steel BS 970 416 S37 |
| 13 | Sensor gasket | Stainless steel BS 1449 304 S16 |
| 14 | Sensor | Stainless steel BS 1449 304 S16 |
| 15 | Blanking plug (not shown) | Steel |
| 16 | Adaptor gasket | Stainless steel BS 1449 304 S16 |

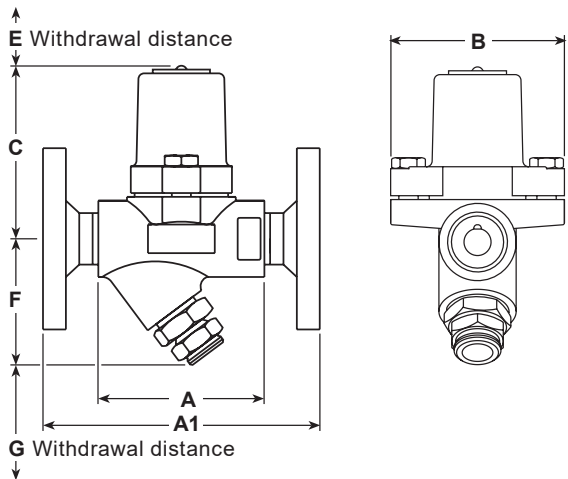
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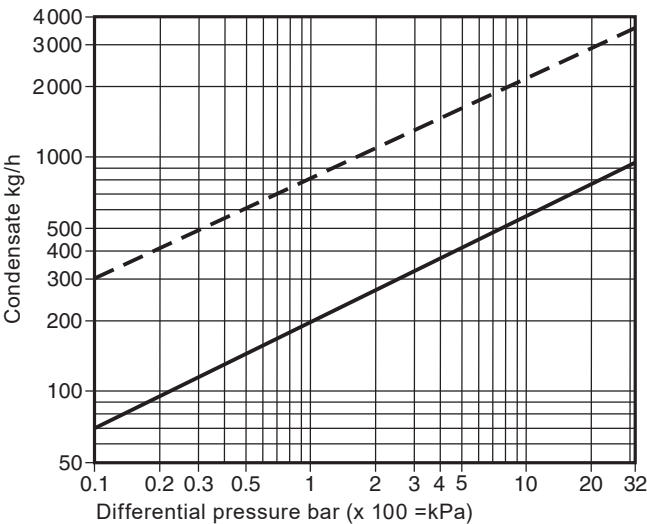
Steam traps
Bimetallic

Dimensions/weights (approximate) in mm and kg

| Size | A | A1 | B | C | E | F | G | Weight | |
|---------|----|-----|----|----|----|----|----|------------|------|
| | | | | | | | | Scrd/SW/BW | Flgd |
| ½" DN15 | 95 | 150 | 94 | 92 | 51 | 63 | 28 | 1.95 | 3.35 |
| ¾" DN20 | 95 | 150 | 94 | 92 | 51 | 64 | 28 | 1.95 | 4.05 |
| 1" DN25 | 95 | 160 | 94 | 92 | 51 | 66 | 28 | 2.05 | 4.75 |



Capacities



Hot water capacity ——— Cold water capacity - - - -

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-F01-30) supplied with the product.

Installation note:

The ISMC32 is designed for installation with the bimetal element in a horizontal plane with the cover at the top. It is recommended that a non-return valve is fitted when discharging condensate into return lines where backpressure is experienced. It is also recommended that a diffuser is fitted when discharging to atmosphere. For ease and maintenance, consideration should be given to fitting isolation valves upstream and downstream of the steam trap.

Disposal

The product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

How to order

Example: 1 off Spirax Sarco ½" ISMC32 carbon steel bodied maintainable bimetallic steam trap having screwed BSP connections. The trap will be supplied with an integral sensor to identify waterlogging and steam wastage (WLS1 sensor) or for steam leakage only (SS1 sensor). Sensors to be compatible with Spiratec indicators, automatic monitors and test points: R1 (single trap) remote test point, R12 (12 trap) remote test point, Type 30 hand held indicator, R16C (16 traps) automatic steam trap monitor or R1C (single trap) automatic steam trap monitor with PNP/NPN output where appropriate.

Spare parts

The spare parts available are shown in a grey outline. Parts drawn in a grey line are not supplied as spares.

Available spares

| | | | |
|--------------------------|--------------------|---------------|------------|
| Element set | | | 2, 3, 4, 6 |
| Strainer screen | Y-type cylindrical | (1 off) | 5 |
| Set of cover gaskets | | (packet of 3) | 7 |
| Sensor and sensor gasket | | | 13, 14 |
| Adaptor gasket | | (packet of 3) | 16 |



How to order spares

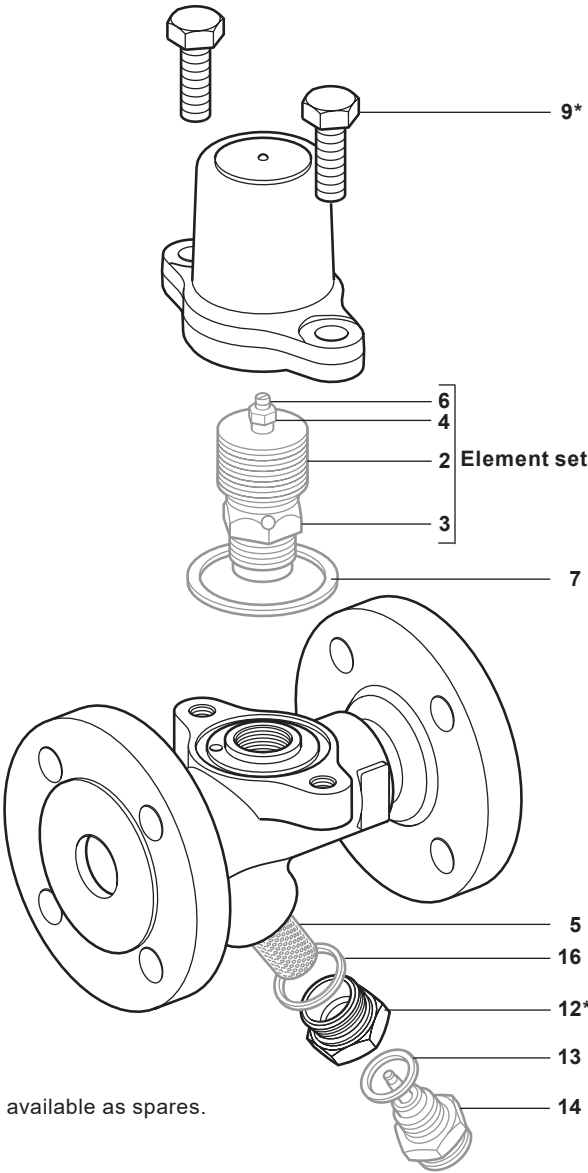
Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap.

Warning: Do not dismantle the element set by removing the locking nut (4) or the setting of the trap will be affected.

Example: 1 - Element set for a Spirax Sarco DN25 ISMC32 bimetallic steam trap with integral Spiratec sensor.

Recommended tightening torques

| Item | Part |  or  | mm | N m |
|------|----------------|--|----------|-----------|
| 3 | Valve seat | 24 A/F | | 115 - 125 |
| 9 | Cover bolts | 16 A/F | M10 x 30 | 23 - 27 |
| 12 | Sensor adaptor | 27 A/F | | 120 - 135 |
| 14 | Sensor | 24 A/F | | 50 - 56 |



* **Note:** Items 9 and 12 are not available as spares.

