



TI-P073-03  
 CH Issue 7

## Type 130 and HL10 'Safeguard High Limit Control'

### Description

The Spirax Sarco safeguard high limit control system is supplied set to cut-out at approximately 60°C and is designed to protect plant from overheating. Note: the settings can easily be altered to initiate cut-out at anywhere between 0°C and 100°C.

The system comprises of a Type 130 control system coupled to an HL10 high limit cut-out unit complete with 2 m of capillary tube as standard. Note: the Type 130 control system is only suitable for use with the HL10 high limit cut-out unit.

For correct installation it is essential to use a sensor pocket (see 'Optional extras'), which can be supplied at extra cost.

The system is designed for use with any one of the following 2-port or 3-port control valves:

### Available types of control valve

Note: For full technical data of the valves mentioned below see the relevant Technical Information sheet (TI).

**SB, KA, KB and KC:**- 2-port normally open valves (to close on temperature rise).

**SBRA, KX, KY and NSRA:**- 2-port normally closed valves (to open on temperature rise). Note: These valves must be installed in a separate bypass pipeline unimpeded by any other control valve when used with the safeguard high limit control.

**TW DN25, 40 and 50:**- 3-port mixing/diverting valve.

### Optional extras

**Capillary tube (12):** In multiples of 2 m to a maximum length of 10 m. Note: The capillary tube should be kept to a minimum to avoid the system being affected by ambient temperature.

**Pockets (16):** Are available in copper or stainless steel having a ¼" BSP (BS 21 taper) or API thread. Union nipple (Y) forms the top of the pocket and carries a rubber washer (X), and gland nut (W).

**Microswitch (14):** This can be connected into an alarm system, using a Kopex conduit connector and flexible conduit (not supplied with the product), and can be arranged to either make or break the electrical circuit on firing of the cut-out (see the 'Current rating table' overleaf). The microswitch has a degree of protection to IP67 (dust tight and protected against the effects of immersion) under BS 5490.

**The microswitch can be added to an HL10 unit originally supplied without it by purchasing a conversion kit:** which includes a conduit entry bracket and two screws for attachment.

### Materials

No. Part	Material	
1 Body	Bronze	BS 1400 LG2
2 Main spring	Stainless steel	BS 2056 302 S26
3 Piston	Stainless steel	BS 970 431 S29
4 Ball	Stainless steel	AISI 440 B
5 Ball return spring	Stainless steel	BS 2056 302 S26
6 Bellows	Stainless steel	AISI 316L
7 Piston insert	Stainless steel	BS 970 431 S29
8 Bonnet	Brass	BS 2872 CZ 122
9 Valve coupling nut	Brass	BS 2872 CZ 122
10 Sensor	Brass	EN 12451 CW707R H130/170
11 Actuator	Stainless steel	BS 3605 CFS 316S18
12 Capillary tube	PVC covered copper	
13 Adjustment head cover	Polypropylene plastic	

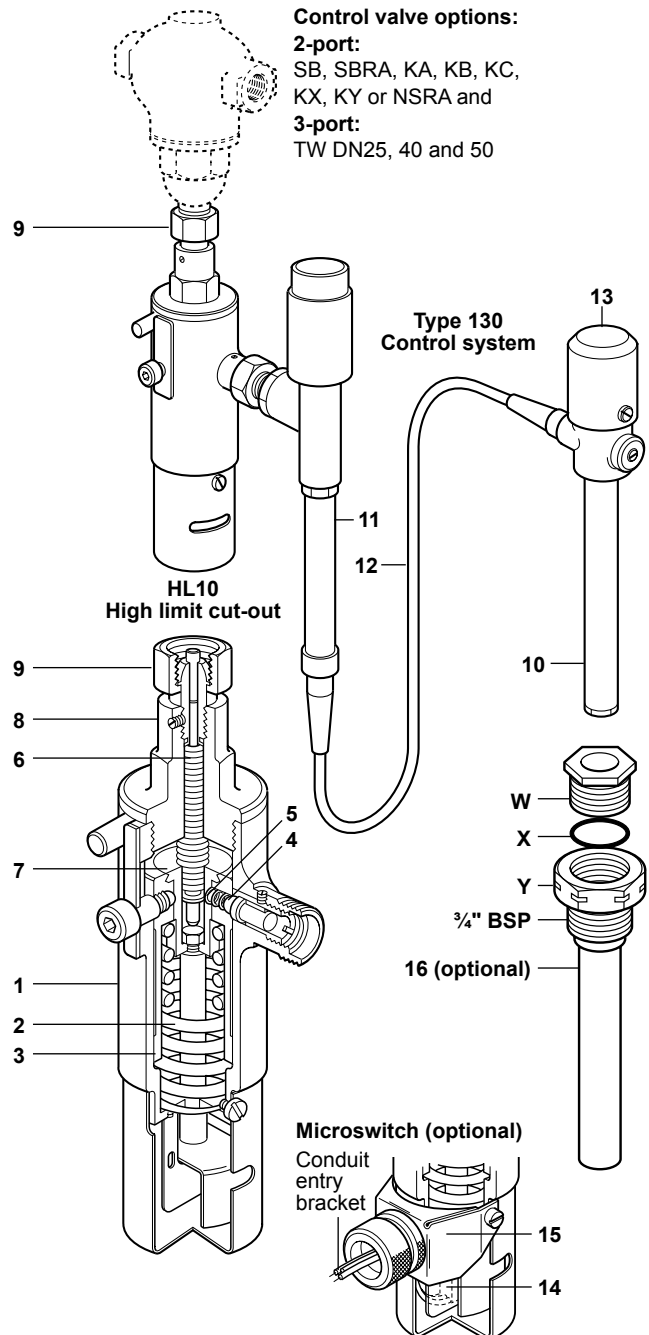
### Control valve options:

#### 2-port:

SB, SBRA, KA, KB, KC, KX, KY or NSRA and

#### 3-port:

TW DN25, 40 and 50

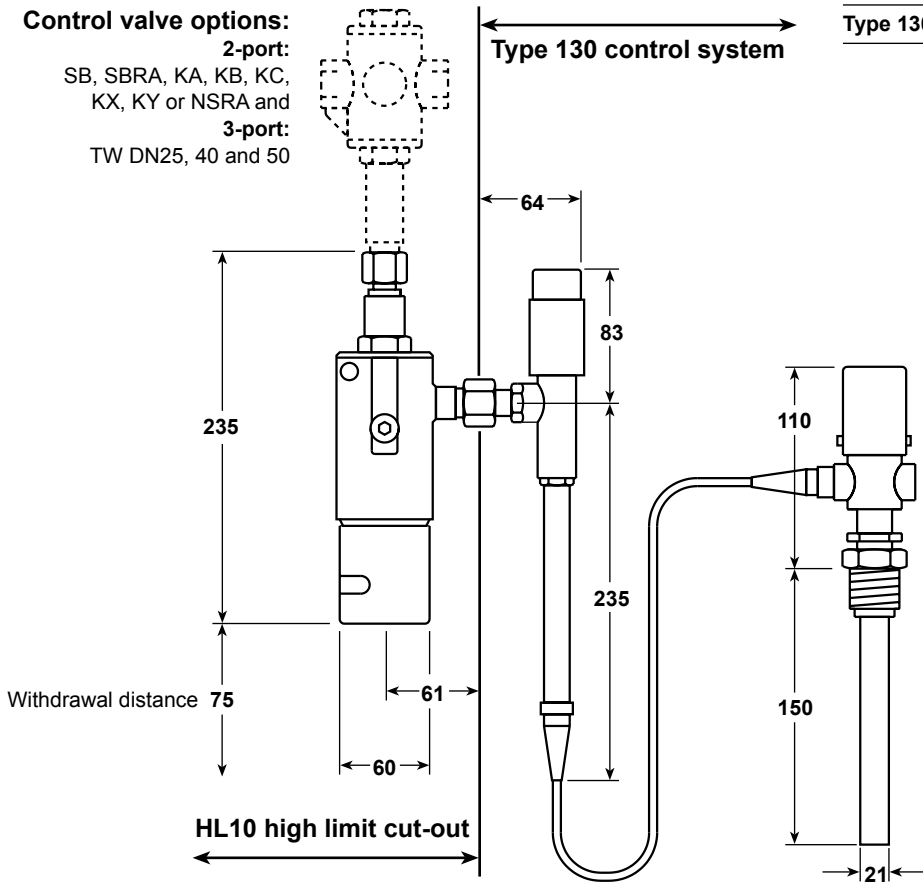


### Materials for optional extras

No. Part	Material	
14 Microswitch		
15 Cover	Aluminium	BS 1470 1200 H2
	Copper	BS 2871 C 106
16 Pocket	Mild steel	BS 980 CEW-2
	Stainless steel	BS 3605 CFS 316S18

**Dimensions** (approximate) in mm

**Weights** (approximate) in kg



HL10 high limit cut-out unit	2.2
Type 130 control system	1.7

**Current rating table - Microswitch**

Voltage	Load amps	
	Resistive	Inductive
125 Vac	5	5
250 Vac	5	5
up to 15 Vdc	10	10
30 Vdc	5	3
50 Vdc	1	1
75 Vdc	0.75	0.25
125 Vdc	0.50	0.06
250 Vdc	0.25	0.03

**Spare parts**

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

**Available spares**

Microswitch assembly	<b>A, B</b> (2 off)
Conversion kit	<b>A, B</b> (2 off), <b>C</b> (2 off), <b>D</b>
Pack of warning labels	(6 off)

**How to order spares**

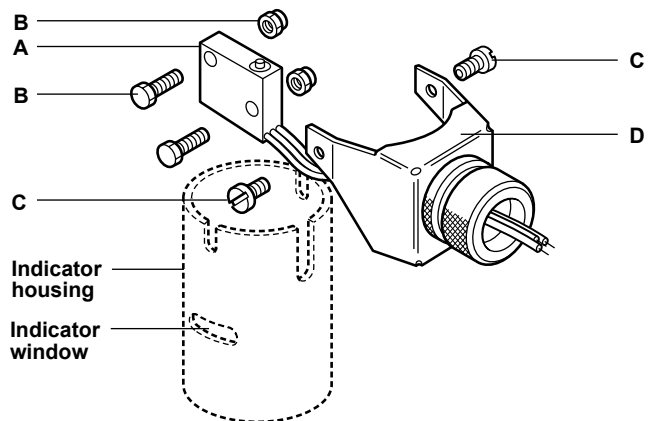
Always order spares by using the description given in the column headed 'Available spares' and state the type of high limit cut-out.  
**Example:** 1 - Microswitch assembly for a Spirax Sarco HL10.

**Safety information, installation and maintenance**

For full details see the Installation and Maintenance Instructions (IM-P073-08) supplied with each unit.

**How to order**

**Example:** 1 off Spirax Sarco Type 130 and HL10 safeguard high limit control complete with 2 metres of capillary tubing for fitment to SA 2 or 3-port valves, inclusive of a microswitch for the HL10 and a stainless steel pocket threaded 3/4" BSP for the sensor.



**Note**

A label will be affixed to the outside of the indicator housing for record purposes.