



Capillary & Bulb Thermostatic Control & Fail-Safe Limit

Control & limit thermostats designed with flexible installation practice in mind, utilizing a rugged steel housing and covering a wide range of temperature applications.

Particularly suited to environments requiring a high level of protection under fire conditions such as in ceilings and other enclosed spaces.

HCE...	Control thermostats for surface mounting with the capillary & bulb freely positioned external to the housing or duct mounted in combination with HDS... duct sheath
HLE...	Fail-safe limit thermostats for surface mounting with the capillary & bulb freely positioned external to the housing or duct mounted in combination with HDS... duct sheath
HLD...	Fail-safe limit thermostats type HLE... supplied complete with HDS00250 duct sheath
HDS00125	Duct sheath, 125mm (approx 5")
HDS00250	Duct sheath, 250mm (approx. 10")

Applications

Return plenum mounting in common areas such as lobbies and corridors
 On/Off control of electric heating
 On/Off control of 2 position valves for heating or cooling coils
 High temperature limit protection
 Remote indication of temperature conditions or alarm status

Design

The housing is constructed from painted 1mm steel and features a versatile base that may be used for duct or wall mounting. For duct mounting, a 125mm or 250mm sensing-bulb support sheath is available separately.

Provision is made at one end for a 20mm cable gland or conduit adapter. The housing is designed so that it may be installed with the cable entry at the top or the bottom.

A 20mm hole is also provided in the base plate for fitting of the sensing bulb support sheath when used for duct applications. This hole may alternatively be used as a rear cable entry point. The sheath fixing holes are common to those of the base plate.

The sensing bulb support sheath is constructed from perforated and galvanized 1mm steel. The perforations enable good airflow across the sensing bulb to ensure the best possible time constant for the control or limitation action of the thermostat.

Ample space is provided in the housing for easy connection of cables and also for storage of unused capillary length, thereby enabling simplified ordering, as standard capillary lengths may be used for most applications.

Operation

HC... thermostats utilize a liquid filled sensing bulb and bellows acting upon SPDT contacts for the automatic on/off control of the load or for remote indication. The desired temperature setting is made by way of manual adjustment of the external dial. The SPDT contacts operate when the set-point is reached.

HL... limit thermostats utilize a liquid filled sensing bulb and bellows acting upon SPST or SPDT contacts for automatic disconnection of a load *without* automatic reconnection. Reset is done manually by pressing the reset button which is accessed by unscrewing the reset button cover.

The HL... series is *fail-safe* in the event of capillary breakage. In such a case the contacts will operate to disconnect the load. To ensure the integrity of the fail-safe function, the setting of the HL... series limit thermostats should not be adjusted outside of the design setting range under any circumstances.

Range Selection

Other versions are available on request!

Order Code	Description	Mounting*	Setting Range (°C)	Differential (°C)	Tolerance (°C±)	Contacts	Capillary (mm) [Ⓐ]
HCE940030	Control thermostat	Wall	0...40	3	2	SPDT	1000
HCE940010	Control thermostat	Wall 0...90	4 3 SPDT				1000
HCE940160	Control thermostat	Wall	0...120	4	3	SPDT	1000
HLE302632	Manual reset high limit	Wall	45...55		3	SPDT	235
HLD302632	Manual reset high limit	Duct	45...55		3	SPDT	235
HLE341510	Manual reset high limit	Wall	90...110		+0/-6	SPST	1000
HLE342196	Manual reset high limit	Wall	120 fixed		+0/-8	SPDT	1000

* 'Wall' versions require HDS... duct sheath for direct duct mounting
[Ⓐ] The indicated capillary length does not include the sensing bulb length

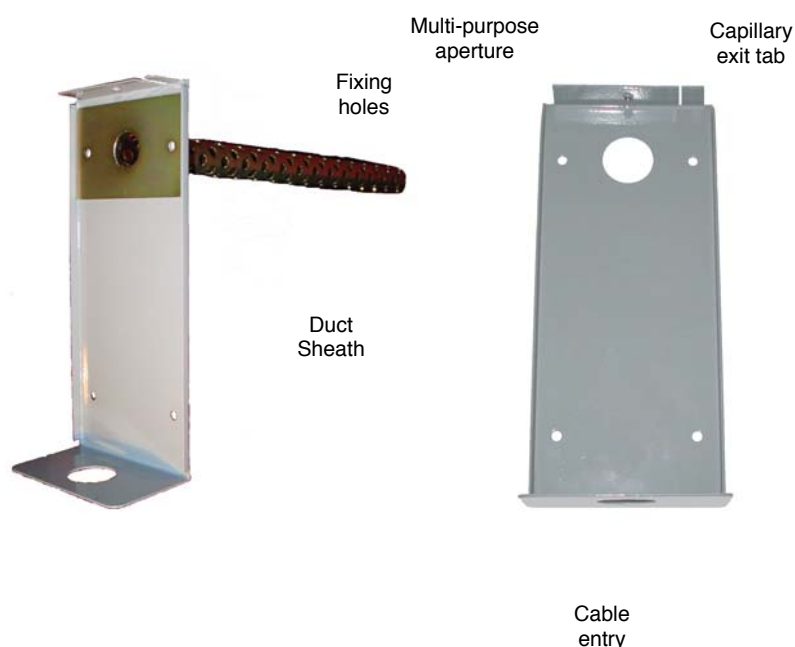
Mounting Guide

The base may be mounted with the cable entry at the top or bottom

Four screw fixing points are provided. The duct sheath mounting points utilize the same fixing points as the base

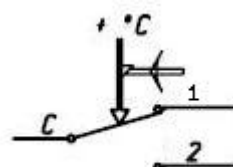
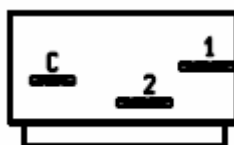
The 'Multi-purpose aperture' may be used for rear cable entry, as a capillary exit point or for use with the duct sheath.

For applications where the capillary exits via the end of the housing, a disposable exit tab is provided which may be pressed in or removed completely to give a clear exit point that aligns with the exit slot in the top cover.

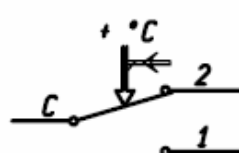
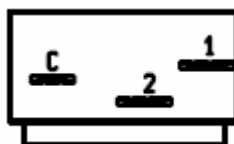


Connections

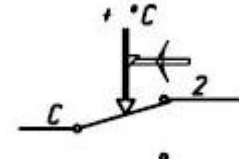
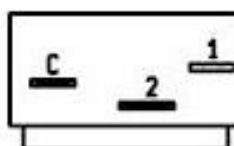
HC... SPDT



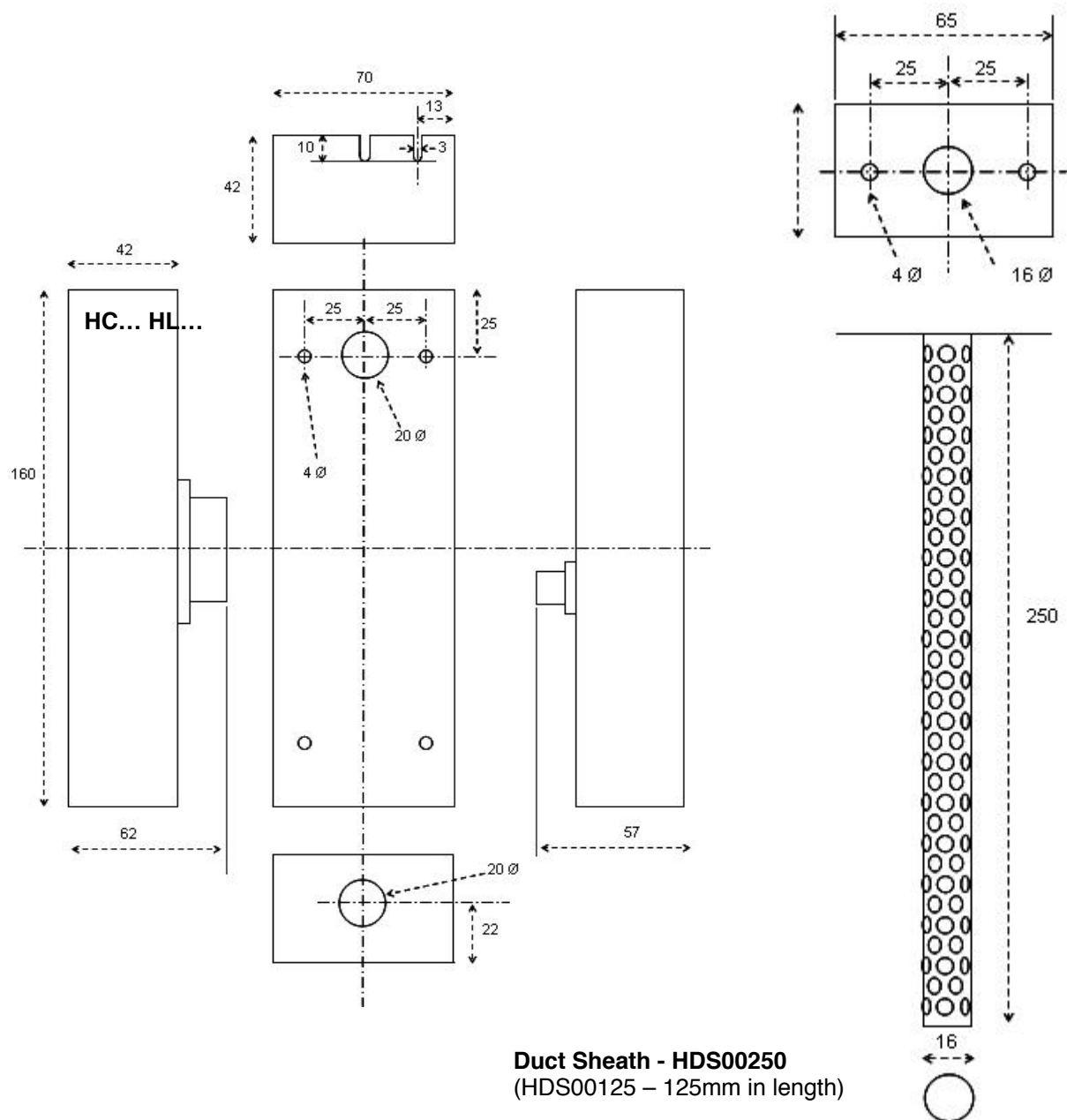
HL... SPDT



HL... SPST



Dimensions



Technical Data

Thermostat HCE940010	HCE940030	HCE940160	HL_302632	HLE341510	HLE342196	
Contacts:	250Vac max.					
Terminal 1	15(2.5)A max.		0.5A max., N.I.	n/a	0.5A max., N.I.	
Terminal 2	6A max., N.I.		10(2.5)A max.	15(2.5)A max.		
Body temperature:	85°C max.	80°C max.				
Bulb temperature:	150°C max.	70°C max.	150°C max.	95°C max.	125°C max.	135°C max.
Capillary bending radius:	5mm min.					
Capillary diameter:	1.5mm					
Bulb dimensions:	95mm x 6.5mm	92mm x 9.5mm	95mm x 6.5mm	140mm x 6mm	95mm x 6.5mm	75mm x 6.5mm
Approvals:	CE, DIN, EN/EC + country specific, case by case.					