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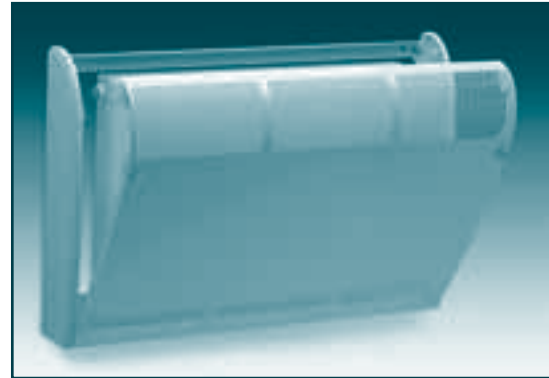
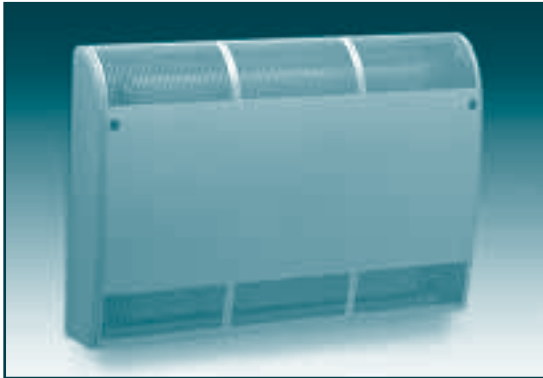


10A.8

## **HUDEVAD**

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LST Care™

## Features

- Unique, aesthetically pleasing appearance
- Strong and durable with 2 mm steel front and cast iron end panels
- Smooth curved design for personal safety
- Tamper and vandal proof by means of bolted or lockable catches
- Conceals and protects pipework and valves
- Casing tilts for access to controls and for cleaning
- Integral stamped grilles facilitate cleaning and prevent dust accumulation
- Use with Plan® single radiators
- Maximum flexibility with individual casing, multiple casings or wall-to-wall system
- Meets NHS Estates Health Guidance Note (March 1998)



10A.0



10A.1



10A.2



10A.3



10A.4



10A.6



10A.7

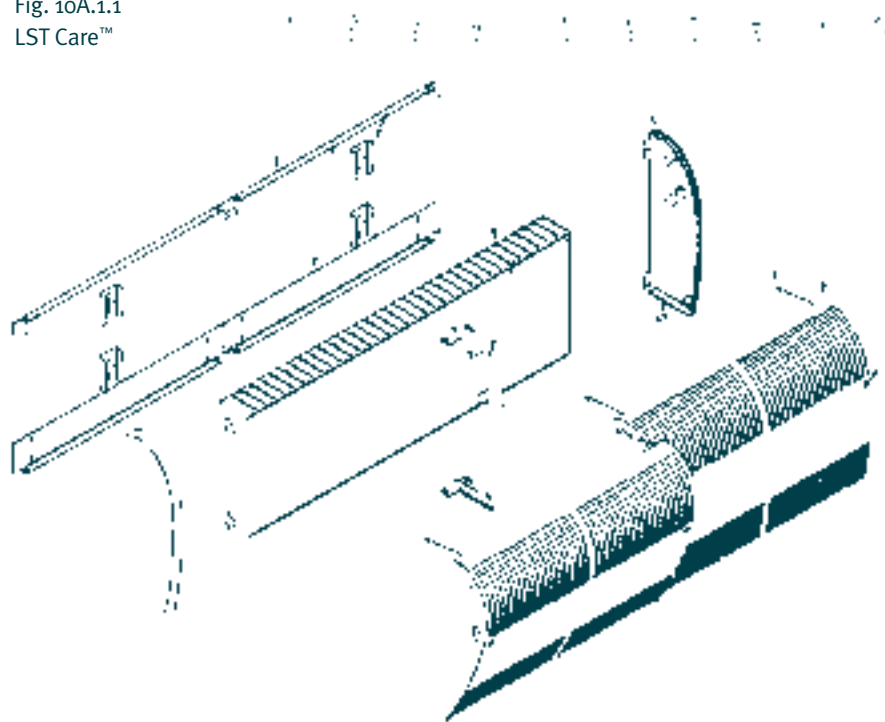


10A.8

## Product description

LST Care™

Fig. 10A.1.1  
LST Care™



### Designation

1. Upper fixing rail
2. Lower fixing rail
3. Bracket
4. Radiator
5. Central mounting frame
6. End panel
7. Pivot stud
8. Safety tie
9. Front panel
10. Spring catch

### Description

Casing system comprising a curved front panel from 2 mm steel with perforated air inlet and outlet grilles and cast iron end panels. Can be used as individual units with one front panel, as a composite system with 2 or more units joined together or as a wall-to-wall system. Casings can be mounted either at floor level or above floor level. Delivered with panel fixing rails and, where required, with central mounting frames to join the front panels. Front panels tilt forward for easy access to radiators and valves and are secured with tie wires. Can, optionally, be provided with bolted or lockable catches to prevent unauthorised access or tampering.

Front panels can be provided as unperforated dummy panels to create a specific length of system or to complete a wall-to-wall system.

Can be used with Plan® 44, 55, 70 and 82. Mounting with standard wall brackets with exception of Plan® 82 on special brackets.

### Material

Front panel: 2 mm steel to DIN 1614, EN 10111  
Dummy panel: 2 mm steel to DIN 1614, EN 10111  
End panel: Cast iron

### Output

Depending on the combination of casing and radiator the output will increase or decrease from the particular radiator's normal output. See output tables, catalogue section 3, page 22



Fig. 10A.1.2

Height and length

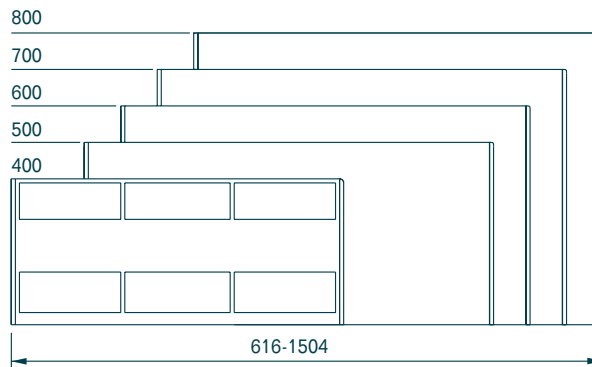


Fig. 10A.1.3

LST Care™, profile



**Length**

Individual units: 616, 912, 1208 and 1504 mm  
 Composite systems: 1800 mm and upwards (no length restriction)  
 Perforated segments are 296 mm long and the end panels each add 12 mm to overall length  
 Casing length, in mm, is calculated as: No. of segments x 296 + 24  
 Dummy panels: 125-1470 mm in 2 mm increments

For precise total lengths and casing combinations see table 10A.1.4  
 When ordering more than 5 segments front panels will be selected to be symmetrical

Radiator lengths: Max radiator length is total length of casing – 140 mm  
 However, max radiator length will depend on tappings and valves, see pages 10A.2.1 - 2

**Height**

Casing: 400, 500, 600, 700 and 800 mm  
 Max radiator height: with casing mounted at floor level: Casing height – 200 mm  
 Max radiator height: with casing mounted above floor: Casing height – 100 mm  
 Any lower radiator height can be used

**Depth**

145 mm

**Tappings**

Radiators with side or bottom tappings can be used. When sizing, space for pipework and valves must be considered, see pages 10A.2.1 - 2.

**Mounting**

Wall mounted at floor level or above floor level

**Colour**

Powder coated in white RAL 9010

Ready-painted in other RAL and BS colours



Radiators are supplied in light grey primer finish

**Packing**

Packed individually in heavy duty cardboard with plastic strapping

**Optional extras  
 (Variant or Individual)**

- Hole in end panel for valve, see page 10A.4.1
- Cut-out in end panel for pipework, see page 10A.6.1
- Lockable catches, see page 10A.6.1
- Security bolted catches, see page 10A.6.1
- Perforated bottom grille (for live panels), see page 10A.6.1
- Non-perforated bottom grille (for dummy panels), see page 10A.6.1
- Casing heights 155, 200, 300 mm, please consult Hudevad
- P5 or P5K radiators, please consult Hudevad



10A.0



10A.1



10A.2



10A.3



10A.4



10A.6



10A.7



10A.8

# Product description

LST Care™

Table 10A.1.4

Combinations of panels and total casing weight

Panel length, mm	No. of segments						Total casing weight, kg				
	Total	Panel 1	Panel 2	Panel 3	Panel 4	Panel 5	Height 400 mm	Height 500 mm	Height 600 mm	Height 700 mm	Height 800 mm
616	2	2					12	13	15	18	20
912	3	3					14	16	19	22	24
1208	4	4					17	20	23	26	29
1504	5	5					20	23	26	30	34
1800	6	3	3				23	27	31	35	39
2096	7	2	3	2			26	30	35	40	45
2392	8	4	4				29	34	38	44	49
2688	9	3	3	3			32	37	42	49	54
2984	10	5	5				35	40	46	52	58
3280	11	4	3	4			38	44	50	57	64
3576	12	4	4	4			41	47	54	62	68
3872	13	5	3	5			44	50	58	66	73
4168	14	5	4	5			47	54	61	70	78
4464	15	5	5	5			49	57	65	74	82
4760	16	4	4	4	4		53	61	70	79	88
5056	17	3	3	5	3	3	56	64	74	84	94
5352	18	5	4	4	5		58	67	77	88	97
5648	19	4	4	3	4	4	61	71	81	93	103
5944	20	5	5	5	5		64	74	85	96	107



Fig. 10A.1.5  
LST Care™ with 5 segments

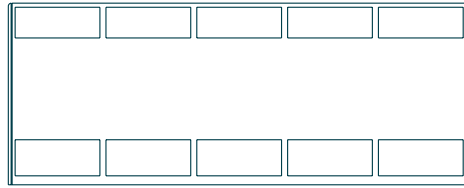
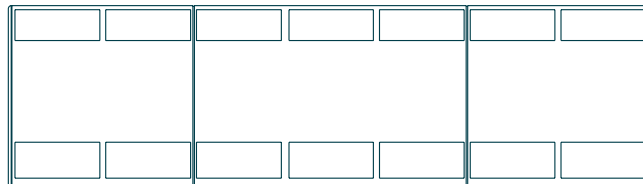


Fig. 10A.1.6  
LST Care™ with 6 segments

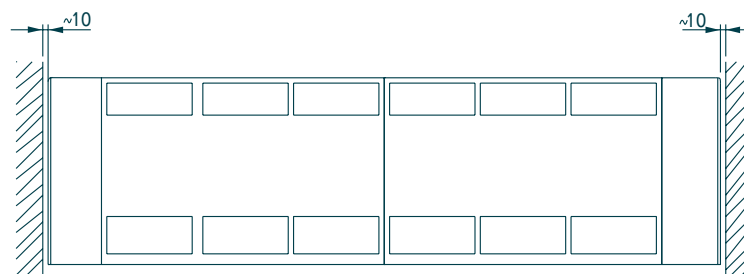


Fig. 10A.1.7  
LST Care™ with 7 segments



By combining dummy (unperforated) panels with live (perforated) panels any required total system length can be achieved, in increments of 2 mm. In order to create a symmetrical appearance 2 dummy sections will be supplied to give the total dummy length required. If total dummy panel length is less than 250 mm only one dummy panel will be provided. If only one dummy panel is required this must be stated at time of order.

Fig. 10A.1.8  
LST Care™ with 6 segments and 2 dummy panels



**NOTE:** For wall to wall systems a shadow gap of approx. 10 mm should be allowed

It is possible to use a dummy panel to fill a gap between live systems, see fig. 10A.1.9

Fig. 10A.1.9  
Use of dummy panels in LST Care wall-to-wall system



10A.0



10A.1



10A.2



10A.3



10A.4



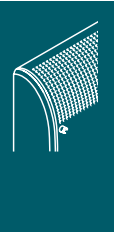
10A.6



10A.7



10A.8



**Side tappings**  
**A, B, C, D**

**Sizes**

1/8", 3/8", 1/2", 3/4"

**NOTE:** All radiators for LST Care™ will be supplied with 1/2" tappings at A, B, C, D, unless otherwise specified

**Positions**

Fig. 10A.2.1  
LST Care™

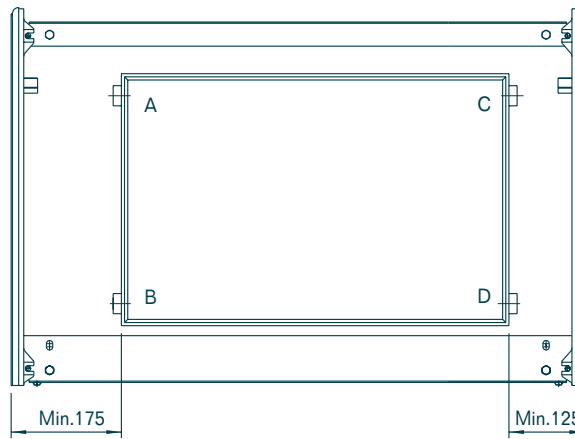
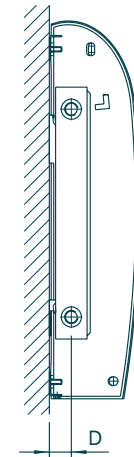


Fig. 10A.2.2  
LST Care™, profile



**NOTE:** To accommodate pipework and regulating valves a 125 mm gap, at either end between radiator and end panel, is recommended. Where a thermostatic radiator valve is required 175 mm should be allowed at valve end.

Table 10A.2.3  
Wall distance for A, B, C, D tappings

Radiator depth, mm	Wall distance D, mm
44	50
55	35
70	43
82	42

10A.0

10A.1

10A.2

10A.3

10A.4

10A.6

10A.7

10A.8

10A.2.1



**Bottom tappings**  
**E, F**

**VARIANT**

**Sizes** 3/8", 1/2"

**Positions** Fig. 10A.2.4  
LST Care™

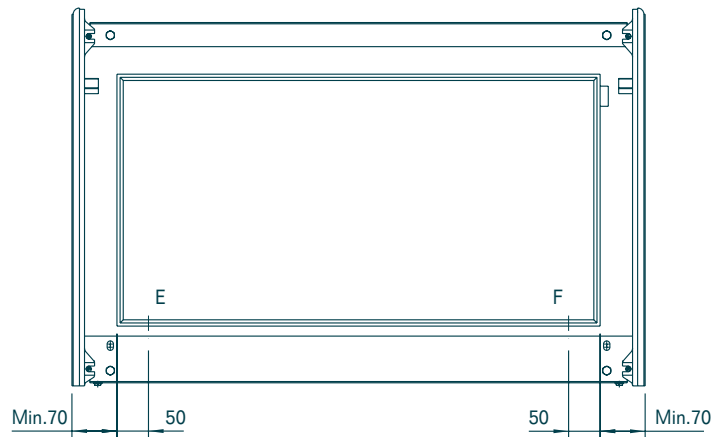
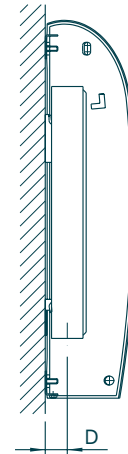


Fig. 10A.2.5  
LST Care™, profile



**NOTE:** Max radiator length with bottom tappings is: Casing length – 140 mm

Table 10A.2.6  
Wall distance for E, F tappings

Radiator depth, mm	Wall distance D, mm
44	46
55	37
70	52
82	57

**NOTE:** Radiators will be supplied with 1/2" air vent at C, unless otherwise specified



10A.0



10A.1



10A.2



10A.3



10A.4



10A.6



10A.7



10A.8

**Brackets BP10/30 and BP3**

All radiators, except Plan 82, are mounted on wall bracket BP 10/30, see fig. 10A.3.1. Plan 44 should be mounted using the outer slot (30 mm wall distance) whilst Plan 55 and 70 must use the inner slot (10 mm wall distance). Plan 82 must be mounted on wall bracket BP3 (3 mm wall distance), see fig. 10A.3.3

Fig. 10A.3.1  
Bracket BP10/30 for  
Plan 44, 55 and 70

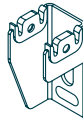
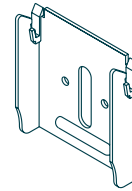


Fig. 10A.3.2  
Spacer for bracket BP10/30



Fig. 10A.3.3  
Bracket and spacer  
BP3 for Plan 82



**Casing at floor level**

Fig. 10A.3.4  
Wall mounting for casing above floor level

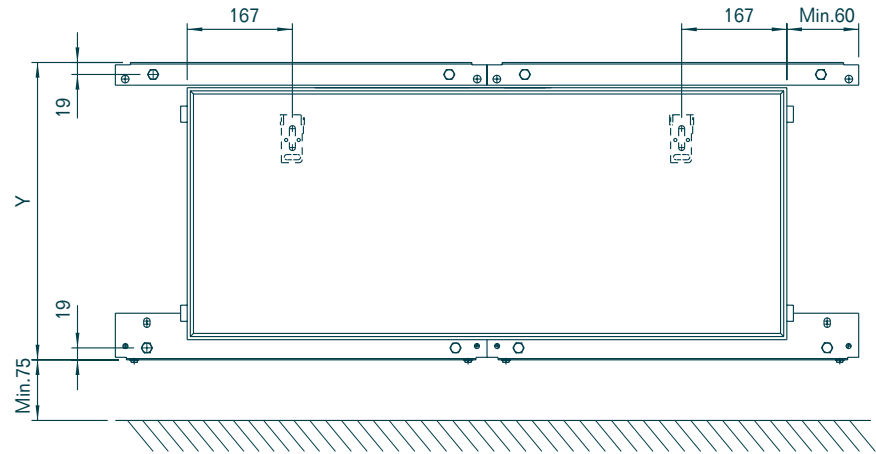


Table 10A.3.5 Distance Y

Panel height, mm	Distance Y, mm
400	372
500	472
600	572
700	672
800	772

Table 10A.3.6 Distance E

Radiator depth, mm	Distance E, mm
44	30
55	10
70	10
82	3

Fig. 10A.3.7  
Wall mounting for casing above floor level, profile

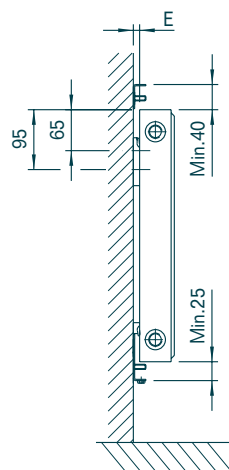
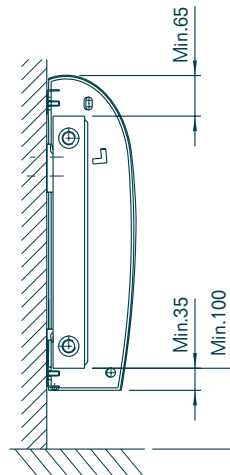


Fig. 10A.3.8  
Casing above floor level, profile



**NOTE:** Max. radiator height when wall mounted above floor level is: Casing height – 100 mm

10A.0

10A.1

10A.2

10A.3

10A.4

10A.6

10A.7

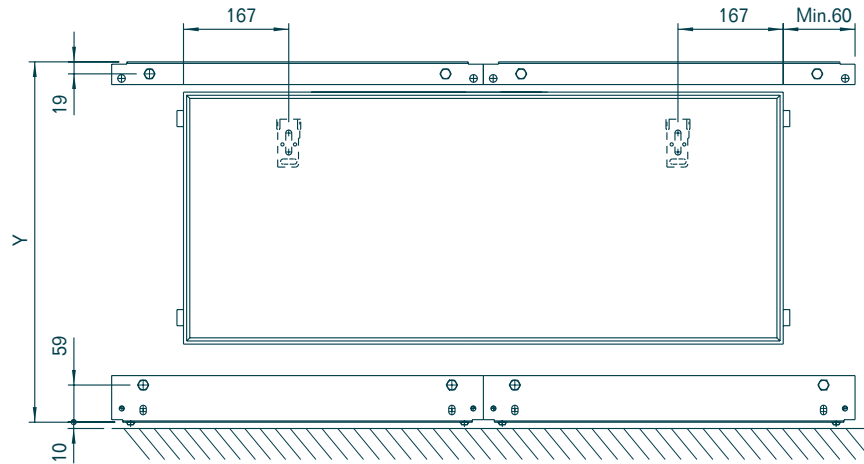
10A.8

10A.3.1



Casing at floor level

Fig. 10A.3.9  
Wall mounting for casing at floor level



**NOTE:** Bottom of rail must be fitted min. 10 mm above finished floor level allowing min. 5 mm gap between bottom of casing and finished floor level, see fig. 10A.3.12 - 13

Table 10A.3.10  
Distance Y

Panel height, mm	Distance Y, mm
400	372
500	472
600	572
700	672
800	772

Table 10A.3.11  
Distance E

Radiator depth, mm	Distance E, mm
44	30
55	10
70	10
82	3

Fig. 10A.3.12  
Wall mounting for casing at floor level, profile

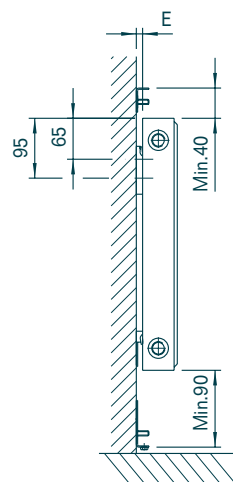
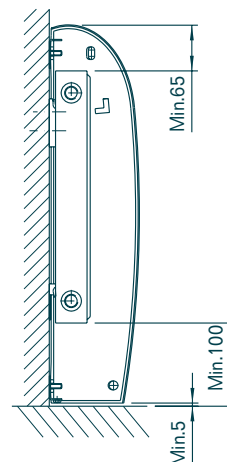


Fig. 10A.3.13  
Casing at floor level, profile



**NOTE:** Max. radiator height when wall mounted at floor level is:  
Casing height – 200 mm



10A.0



10A.1



10A.2



10A.3



10A.4



10A.6



10A.7



10A.8



# Built-in valve LST Care™

## Built-in valve with remote sensor

**VARIANT**

### Application

For use where valve is to be concealed behind front panel for appearance or to prevent unauthorised use or tampering

### Dimensions

Radiators must be ordered with side tappings. To accommodate pipework and valves a minimum 175 mm gap is required between radiator and casing at flow and a 125 mm gap, at return, see fig. 10A.4.1



Fig. 10A.4.1  
Built-in valve with remote sensor

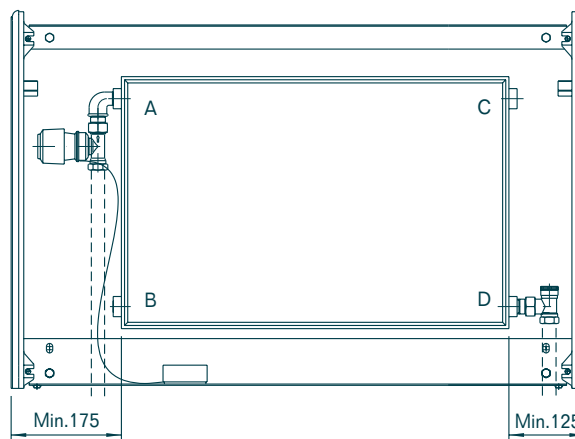
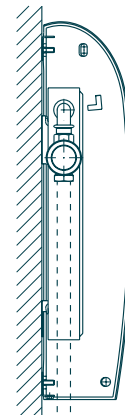


Fig. 10A.4.2  
Built-in valve with remote sensor, profile



## Hole for built-in valve

**VARIANT**

### Application

For use where access to valve is required without opening casing

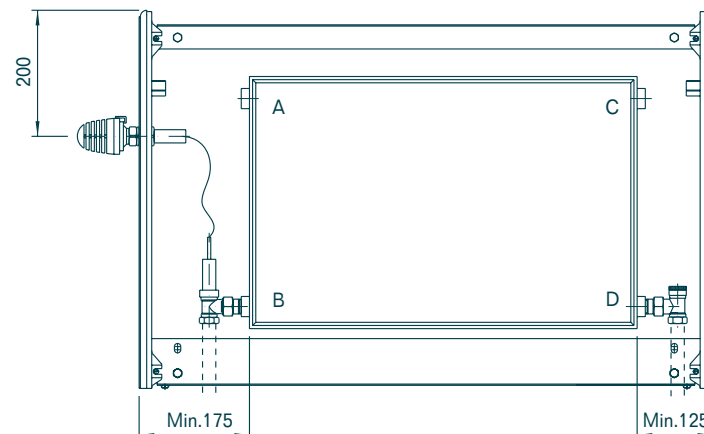
### Construction

End panel is provided with hole to accommodate protruding remote sensor/adjuster from Herz

### Dimensions

Radiators must be ordered with side tappings. To accommodate pipework and valve 175 mm gap is required, see fig. 10A.4.3

Fig. 10A.4.3 Casing with Herz remote sensor/adjuster



### Other valve types

Other valves can be accommodated, please consult Hudevad

**INDIVIDUAL**

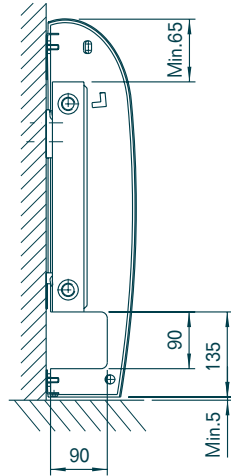


## Cut-out for pipework

VARIANT

Cut-out for pipework can be provided in a standard position, see fig. 10A.6.1

Fig. 10A.6.1  
Cut-out for pipework



Alternatively cut-outs in other positions can be provided, please consult Hudevad

INDIVIDUAL

## Bottom grille

VARIANT



**Application**

To prevent access to radiator from beneath

**Construction**

Steel bottom grille. Perforated for live panels and non-perforated steel for dummy panels. Welded to lower fixing rail.

**Colour**

Same as casing

## Lockable catch

VARIANT

**Application**

To prevent unauthorised opening of casing

**Construction**

Standard spring catches are replaced with key lockable catches

## Security bolted catch

VARIANT

**Application**

Where tamper proof locking of casing is required

**Construction**

Standard spring catches are replaced with M8 Allen bolt with security pin



10A.0



10A.1



10A.2



10A.3



10A.4



10A.6



10A.7



10A.8

## Specification clauses

### LST Care™

Below please note standard specification clauses which give an accurate technical description of the product.

The texts relate to the most common products in this section of the catalogue and are stated in the same order.

#### LST Care™

“Hudevad LST Care™ low surface temperature casing according to NHS Estates Health Guidance Note (March 1998). System comprising curved front panel(s) of 2 mm steel with perforated inlet and outlet grilles, and cast iron end panels, smoothly rounded. Front panel(s) tilts forward for cleaning and maintenance and is secured with tie wires. Electrophoresis primed and ready-painted with oven dried powder coat or wet coat. Surface treatment in accordance with DIN 55900 and BS EN 442. As heat emitter, a Hudevad radiator model Plan® is used.”

#### Built-in valve with remote sensor (page 10A.4.1)

“With thermostatic valve concealed within casing.”

#### Hole for built-in valve (page 10A.4.1)

“With valve concealed within casing and thermostatic sensor head fitted to cast iron end panel.”

#### Cut-out for pipework (page 10A.6.1)

“With cut-out in cast iron end panel to accommodate pipework.”

#### Bottom grille (page 10A.6.1)

“With protective bottom grille of perforated steel sheet.”

#### Lockable catch (page 10A.6.1)

“With key lockable casing.”

#### Security bolted catch (page 10A.6.1)

“With security bolted casing.”



**Casing selection guide**

For selecting the shortest possible casing at a given height plus matching radiator the following steps are recommended:

- 1) Establish required radiator output
- 2) If necessary, correct radiator output to design temperature set using correction table (catalogue section 3, page 4)
- 3) Determine casing height and mounting position (at or above floor level)
- 4) Establish max. radiator height (at floor level: Casing height – 200 mm, above floor level: Casing height – 100 mm)
- 5) Establish output variation using output table (catalogue section 3, page 20) and correct required nominal output
- 6) Choose radiator size using output tables (catalogue section 3, pages 6-10)
- 7) Establish casing length as radiator length plus: 140 mm using bottom tapplings, 250 mm using side tapplings, 300 mm using side tapplings and built-in valve

For selecting casing and radiators for wall-to-wall systems the following steps are recommended:

- 1) Establish required radiator output
- 2) If necessary, correct radiator output to design temperature set using correction table (catalogue section 3, page 4)
- 3) Establish casing height, length and mounting position (at or above floor level)
- 4) Establish max. radiator height (at floor level: Casing height – 200 mm, above floor level: Casing height – 100 mm)
- 5) Establish output variation using output table (catalogue section 3, page 20) and correct required nominal output
- 6) Choose radiator size(s) using output tables (catalogue section 3, pages 6-10)
- 7) If length of chosen radiator(s) is considerably shorter than the casing system, in order to obtain a more even distribution of heat, reduce radiator height and repeat steps 5 and 6

**Order guide**

Units and systems without dummy sections:

When ordering please state height of casing as well as number of segments or total length.

Example 1: For LST Care unit, height 600, 4 segments (length 1208 mm) please state:

LST Care 600, 4 segments  
or LST Care 600-1208

Example 2: For LST Care system, height 700, 9 segments (length 2688 mm) please state:

LST Care 700, 9 segments  
or LST Care 700-2688

Units or systems with dummy sections:

When ordering please state height of casing as well as number of live segments or total length of live system plus dummy panel length

Example 3: For LST Care system, height 800, 7 segments (length 2096 mm) plus 300 mm of dummy panels please state:

LST Care 800, 7 segments + 300 mm dummy panels  
or LST Care 800-2096 + 300 mm dummy panels

When ordering radiators, please see page 4.7.2. Please note limitations to radiator heights and lengths, see page 10A.1.3, as well as variations in radiator outputs, see catalogue section 3, page 22



10A.0



10A.1



10A.2



10A.3



10A.4



10A.6



10A.7



10A.8



### Technical data

#### Construction

Curved and perforated casing system from 2 mm steel with cast iron end panels. Available as individual casing or wall-to-wall system where dummy panels enable any length of installation. Behind casing Hudevad radiator(s), model Plan.

#### Function

A Low Surface Temperature (LST) radiator system designed to protect vulnerable groups (old, young, infirm, disabled) from risk of burning or scalding by offering a maximum touch temperature on the casing surface of 43°C.

#### Surface treatment

Pretreatment:

- Degreasing and iron-phosphating.

Priming:

- Electrophoresis with water based paint in pale grey colour.

Ready-painting:

- White RAL 9010: Powder EP/PE, gloss approx. 40%.
- Other colours: Powder painted as above and wet painted with high degree of total solids, gloss approx. 40%
- Surface treatment in accordance with DIN 55900 and BS EN 44

### Maintenance

#### Repair of powder or wet coated casings

Water based acrylic paint obtained from a decorating wholesaler can be used.

#### Recoating of powder or wet coated casings

After cleaning, powder or wet coated radiators can be recoated with the following:

Powder coat: EP/PE powder

Wet coat: Synthetic, non yellowing coat. Water based or similar acrylic paint

Hardening: 150°C curing temperature for 10 min

#### Opening of casing

Turn spring catches anti clockwise with a coin or similar (with key on lockable casings). Lift casing with spring catches and pull forward. Close casing in reverse order.

#### Venting

Venting of radiators is only necessary if the heating system has been drained or if the radiators for some reason are noisy from air in the system. Before venting the casing must be tilted forward to gain access to air vent. The flow valve must be open when venting. The air vent should be opened cautiously, while a cloth is held in front of it to prevent splashing. When air is vented and only a water jet is emitted, close the vent. Close the casing.

#### Cleaning

Light household cleaning materials can be used for painted surfaces. Abrasive materials such as scouring powder should not be used.