

**Specification text: Fire protection – module – standing enclosure (CS 90 Modus - 90 min)**

Tested fire protection enclosure with a fire resistance of at least 90 minutes, with a fire load from outside F90 tested in accordance with DIN EN 1363-1 in the sense of EI90 (i <-o), as well as single components in accordance with EN 13501. Compliance with the limit values specified in EN 1047-2 or EN 12101-10 is possible during normal operation and in the event of a fire.

Based on the General Building Approval/General Type Approval (verification of fitness for use) Z-86.1-138 for the scope of application MLAR 5.2.2c.

Suitable for functional integrity of distribution boards for 90 minutes, with a fire load from outside in the sense of E90.

The heat development of electrical/electronic components inside the enclosure under normal conditions and in the event of a fire can be verified on a project-by-project basis through a calculation or by conducting a fire test at an MPA.

**Fire protection enclosure type standing enclosure (CS 90 Modus)**

- Suitable for functional integrity of safety relevant installations over 90 minutes
- With a tested fire resistance of 90 minutes (fire load from the outside)
- UI 400V, IP 54, IK 10 as per EN 62208
- Approved by building authorities Z-86.1-138 (DIBt verification of fitness for use)

**Dimensions and technical data**

- **Type CS 5.3-90 S Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 966 W 1064 D 300	H 750 W 750 D 166

Weight approx. 227 kg
- **Type CS 5.3-90 M Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 966 W 1064 D 400	H 750 W 750 D 266

Weight approx. 269 kg
- **Type CS 5.3-90 L Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 966 W 1064 D 500	H 750 W 750 D 366

Weight approx. 310 kg
- **Type CS 6.3-90 S Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 1116 W 1064 D 300	H 900 W 750 D 166

Weight approx. 255 kg
- **Type CS 6.3-90 M Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 1116 W 1064 D 400	H 900 W 750 D 266

Weight approx. 300 kg
- **Type CS 6.3-90 L Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 1116 W 1064 D 500	H 900 W 750 D 366

Weight approx. 345 kg
- **Type CS 12.2-90 M Modus fire protection – module – standing enclosure, double-door**  

External dimensions in mm	Internal dimensions in mm
H 2016 W 814 D 400	H 1800 W 500 D 266

Weight approx. 413 kg

Further information can be found at [www.celsion.de](http://www.celsion.de)

Printing errors and mistakes cannot be completely ruled out. In case of uncertainty, please contact us.

- **Type CS 12.3-90 S Modus fire protection – module – standing enclosure, double-door**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H 2016 W 1064 D 300	H 1800 W 750 D 166

Weight approx. 420 kg
- **Type CS 12.3-90 M Modus fire protection – module – standing enclosure, double-door**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H 2016 W 1064 D 400	H 1800 W 750 D 266

Weight approx. 488 kg
- **Type CS 12.3-90 L Modus fire protection – module – standing enclosure, double-door**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H 2016 W 1064 D 500	H 1800 W 750 D 366

Weight approx. 555 kg
- **Type CS 12.4-90 S Modus fire protection – module – standing enclosure, double-door**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H 2016 W 1314 D 318	H 1800 W 1000 D 166

Weight approx. 564 kg
- **Type CS 12.4-90 M Modus fire protection – module – standing enclosure, double-door**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H 2016 W 1314 D 418	H 1800 W 1000 D 266

Weight approx. 637 kg
- **Type CS 12.4-90 L Modus fire protection – module – standing enclosure, double-door**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H 2016 W 1314 D 518	H 1800 W 1000 D 366

Weight approx. 710 kg
- **Type Sondertyp CS 90 Modus fire protection – module – standing enclosure, custom**  

<b>External dimensions in mm</b>	<b>Internal dimensions in mm</b>
H ____ W ____ D ____	H ____ W ____ D ____

Weight approx. on request
- With standard cable entry box large (individually equippable) on top of the enclosure

## Enclosure

- Enclosure door leaf with narrow edge banding to protect against impact loads on the edge, swivel lever and 2-point locking mechanism, flush-closing doors.
- Swivel lever, retrofitting to DIN half cylinder possible.
- The enclosure can be locked at any time by simply pressing the swivel lever shut; a key is not required for locking.
- Doppeltür mit Stahlscharnieren und Schwenkhebel im rechten Türflügel, Schiebern oben und unten im linken Türflügel.
- Fireproof with all-round seal to prevent the leakage of smoke (three-stage protection function). First stage 68°C to 95°C smoke-inhibiting and fireproof. The second stage begins at approx. 300° C with complete endothermic sealing of the enclosure. From 180° C to 1000° C, the third stage begins to additionally foam the enclosure if necessary.
- Tested with built-in components and integrated cable bulkhead
- Exterior color light grey, similar to RAL 7035 coated

## Material

- Basic fire protection panels non-combustible
- Coated fire protection panels meet the requirements of DIN EN 438-2, e.g. abrasion resistance, impact resistance, scratch resistance, etc. ...
- Multi-layer, patented wall construction made of non-flammable building materials, with endothermic middle layers to keep the temperature low even in the event of fire
- Surface: high-quality coated basic fire protection panels with high impact and shock resistance as well as chemical resistance
- The standard surface coating is  $\leq 0.5$  mm and therefore fulfills the instructions in the MVVTB that coatings up to 0.5 mm layer thickness do not affect the assessment of the building material class.

## Test data required to assess the functional integrity according to MLAR

[Example: series CS 90 Modus - internal dimensions [mm]: 2100x1250x1000]

- Temperature increase of the air measured at 2/3 height in an enclosure: **max. 50 Kelvin** after 90 minutes

Verification of functional integrity of electrical installations must be ruled out project-related as per MLAR.

## Temperature and ventilation

- Patented ventilation system CLS, smoke-inhibiting, to dissipate the heat loss (self-closing in case of fire at approx. 65° C)
- Compliance with the temperature and humidity limit values in accordance with EN 61439-1 and EN 12101-10 in normal operation and in case of fire (mandatory)
- Cable entry with integrated heat accumulator, resulting in minimal heat entry into the enclosure via the cable entry
- Patented features include: Enclosure, ventilation systems and various additional options

## Options

- Tested double planked rear wall for free-standing installation in the room in compliance with the above points and floor fixation
- Special colors and special coatings
- Additional ventilation with various fans to dissipate the heat loss
- Duct connection piece for connecting to cable ducts
- Smoke-retardant filter mats that, through a chemical reaction triggered by cold smoke, prevent ventilation and thus the escape or ingress of cold or hot smoke.
- KCLS cold smoke barrier as retrofitted variant to prevent smoke from leaking even in the case of swelling fires
- With a base with levelling feet for a height adjustment, tested at a state-approved MPA
- Swivel lever in both door leaves
- Cable entry boxes on the side, back panel and bottom
- Installation in front of a fire-resistant lightweight partition wall

## Installation and assembly

- High-quality assembly instructions for easy installation and assembly with enclosed documentation
- Incl. fixing material M10 with European technically approved dowels
- Top-hat rails and mounting frames can be attached to the inner walls. Standardized installation fields can be used.
- Certificate RAL quality mark from the Gütegemeinschaft Brandschutz im Ausbau e.V.

## Product

Celsion Brandschutzsysteme GmbH  
Dresdener Straße 51  
D-02625 Bautzen  
Phone: 03591 / 270 78 0  
Email: office@celsion.de  
Web: www.celsion.de

or equivalent.

If a different product is used, the approvals and calculations of the excess temperature including temperature curves must be submitted to the planning office. Equivalence is only given if the above requirements are met.

Service:

Delivery and ready-to-use assembly

## Advantages of CS 90 Modus fire protection – module – standing enclosure

Maximum safety in the smallest of spaces. This enclosure can serve as a substitute for a fire-resistant control room.

Due to its general building approval, it may be used in accordance with MLAR 5.2.2. as an alternative to the requirements for a dedicated room.

The product is delivered in modules to ease installation. The enclosure can be assembled directly at the installation site using the easy-to-understand assembly instructions.

The system is equipped with the required safety components and installed at the destination as a complete unit. Due to the integrated "CLS" ventilation system and the built-in cable boxes with "CKE" cable entries, no additional fire protection measures are necessary.

Due to the freely selectable surface, which can optionally be adapted to the existing architecture, the fire protection enclosure can also be used in representative areas. A possible line-up of the enclosures in a row can create a visually uniform front.

An adapter that has been tested in a fire test allows existing cable conduits to be routed directly to the enclosure and connected.

*Explanations:*

<b>Abbreviation</b>	<b>Description</b>
MLAR	Model piping system directive (Musterleitungsanlagenrichtlinie)
MPA	Materials testing institute
MVVTB	Model administrative regulation