

report
TECHNICAL SPECIFICATIONS
OBJECT: INSTALLATION OF "TRAFFIC LIGHT" SIGNALING

In implementation of order No. 325 dated 25.05.2026 for the drafting of the implementation project for the placement of traffic lights at the intersections studied and determined by the working group according to the presented report.

In designing and determining the placement of traffic lights according to the location of the material base at problematic intersections in the city, effective urban traffic management,

Due to the current situation, these intersections need traffic lights, especially during peak traffic and pedestrian flows, which are difficult and dangerous.

The placement of traffic lights is based on the Highway Code and the technical standards in force.

Traffic volume criterion

Pedestrian safety

The geometry of the crossroads

Type of lighting and traffic detectors, pedestrian buttons

Civil works and infrastructure

1. Drilling and underground spaces for the passage of underground electrical cables
2. Concreting the foundations for the pillars
3. Installation of control manholes
4. Horizontal signage

The establishment of this traffic light system will bring long-term traffic regulation in these urban nodes.

For these reasons, the designer took into account all the peculiarities of traffic light adaptation and, conversely,

During the implementation and provision of traffic lights, their technical conditions must be respected:

- Micro-controller based modular structure
- Easy programming via Bluetooth or USB connection
- Up to 32 signal groups, 32 inputs isolated by loop detector
- Accurate control of lamp current and voltage and safe signaling
- Options for 12, 16, 20, 24, 28 and 32 groups
- Remote connection options via Ethernet, GPRS and SMS
- 2 separate programming interfaces for new and experienced users
- All inputs for measuring compliance with traffic counts and occupancy rates

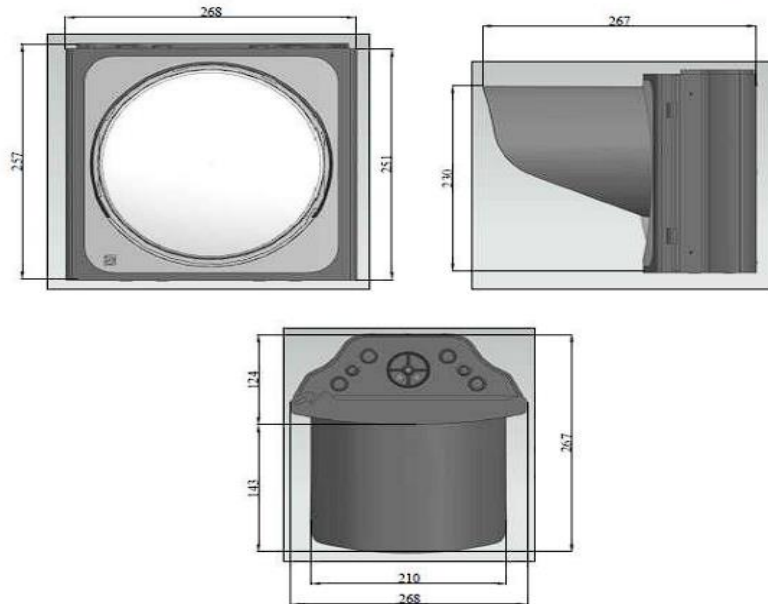
- External connections: 1 USB port
- 16 units assigned to different phases according to the phase plan and signaling plan
- 48 units by 16 units in signal sequence using defined steps
- Adaptive Traffic working mode for logical functional blocks
- Opening and closing sequence
- To avoid unreliable or faulty signaling, simulate signal plans without using signal outputs
- Normal and fault mode status, flashing, colors and frequencies
- Certifications: TS EN 12675, HD 638

Traffic lights should be according to this data.

- **Diameter** : Ø200 mm
- **LED**: 5 mm LED / red , green
- **Body color** : Black
- **material The Body** : 100% Polycarbonate
- **Supply Voltage**: 220 V AC, 50 Hz
- **consumption The Energy** : 15 Watt / Module
- **Cover** : Airtight Box
- **Working Temperature** : -40 / +60 ° C
- **Body**: Meets TS EN 12368 standard

BODY The signal includes :

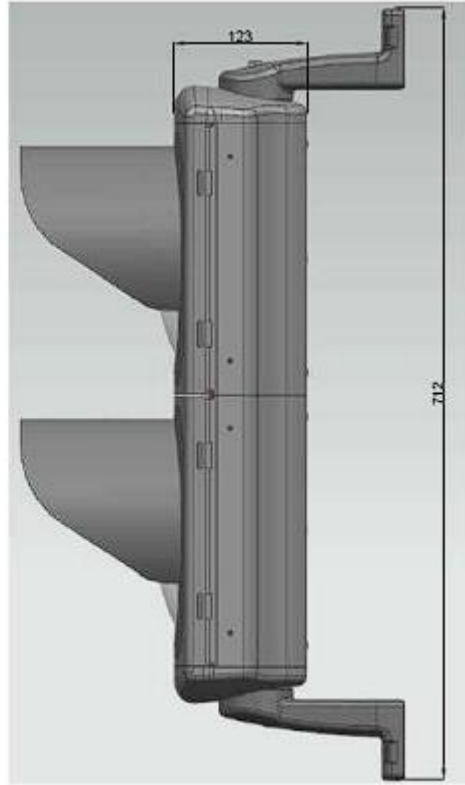
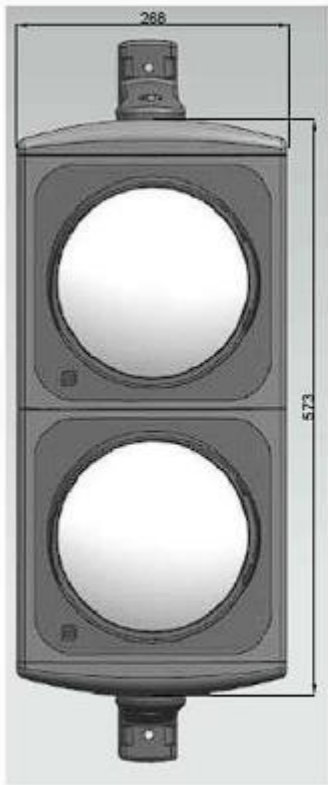
- 1 body with canopy (visor)
- 1 lid
- 2 brackets
- washer rubber
- Mounting screws and O-rings



- **Diameter (LED module):** 200 mm
- **Color / Type The Body :** Black
- **LED (Type / Color):** Power LED, red / green
- **Light Distribution :** Fresnel lens
- **Power Factor:** PF > 0.9, THD < 20%
- **consumption The Energy :** 8 Watt / Module
- **Supply Voltage:** 220 V AC, 50 Hz
- **Certificate :** TS EN 12368:2015, IP65
- **Body/Mask Material:** Polycarbonate (100% PC)

BODY The signal includes :

- 2 shelters (visor)
- 2 bodies
- 2 lids
- 2 holders
- washer rubber
- Mounting screws and O-rings



- **Diameter (LED Module):** 200 mm
- **Color / Type The Body :** Black
- **Body/Mask Material:** Polycarbonate (100% PC)
- **LED (Type / Color):** Power LED / red, yellow, green
- **Light Distribution :** Fresnel lens
- **Power Factor:** PF > 0.9, THD < 20%
- **consumption The Energy :** 8 Watt / Module

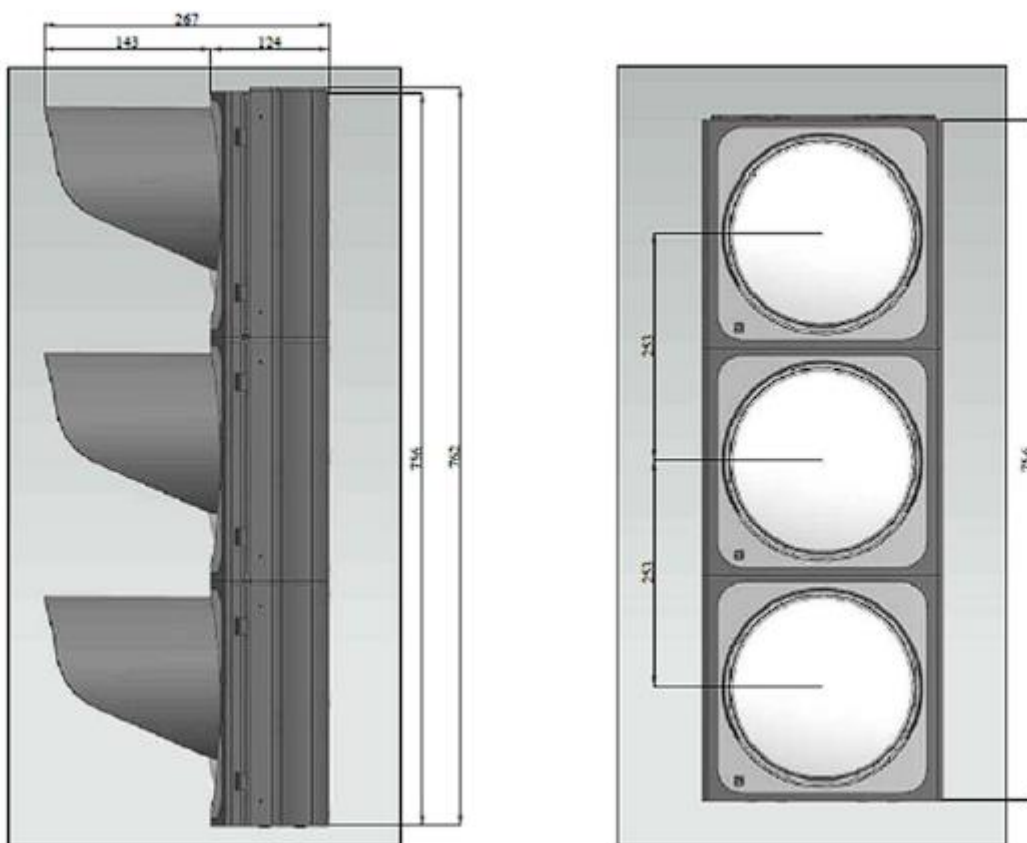
- **Supply Voltage:** 220 V AC, 50 Hz
- **Standards :** TS EN 12368:2015

BODY The signal includes :

- 3 shelters (visor)
- 3 bodies
- 3 lids
- 2 holders
- washer rubber
- Mounting screws and O-rings

The signal body, cover, housing and brackets are made of 100% polycarbonate (PC) material, reinforced against the effects of UV rays. Reports are available confirming the 100% PC polycarbonate composition.

The signal bodies have a modular structure. It is possible to mount a double for a pedestrian signal or a triple for a vehicle signal using a base body.



- **Diameter (LED Module):** 300 mm
- **Color / Type The Body :** Black
- **Body/Mask Material:** Polycarbonate (100% PC)
- **LED (Type / Color):** Power LED / red, yellow, green
- **Light Distribution :** Fresnel lens
- **Power Factor:** PF > 0.9, THD < 20%
- **consumption The Energy :** 8 Watt / Module

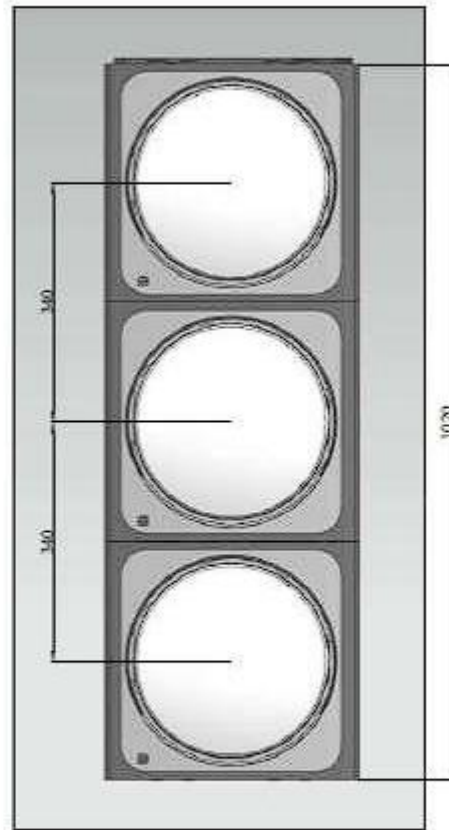
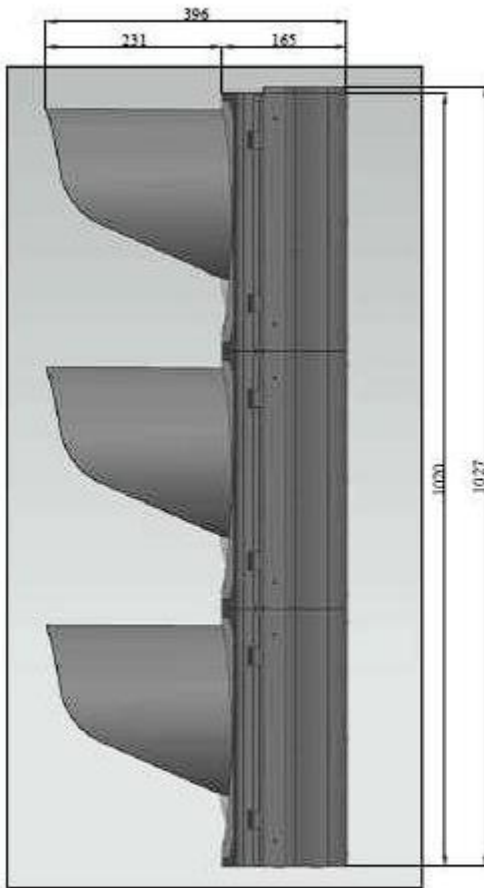
- **Supply Voltage:** 220 V AC, 50 Hz
- **Standards :** TS EN 12368:2015

BODY The signal includes :

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The signal bodies have a modular structure. It is possible to mount a double for a pedestrian signal or a triple for a vehicle signal using a base body.



Technical Specifications

1. 12 Group Crossover Controller

- Structure modular based microcontroller
- PROGRAMMER The easily via Bluetooth or USB
- SUPPORTING UP IN **32 groups The signal AND 32 entries THE isolated BY detector The loop**
- control The Correctly The POWER AND VOLTAGE THE Luminaries AND signaling The SAFE
- OPPORTUNITIES Configuration : **12, 16, 20, 24, 28 and 32 groups**
- options link IN Remote : **Ethernet, GPRS, SMS**
- Two interfaces programming : for USERS THE young and experienced
- of all ENTRIES ABOUT measuring compliance with traffic counts AND occupation rate
- link THE external : **1 USB port**
- Signaling units :
 - 16 units THE determined IN PHASE THE MISCELLANEOUS
 - 48 units by 16 units IN sequence using the defined steps

- **Adaptive Traffic** working mode for logical functional blocks
 - sequences openness AND closing
 - Simulation The PLANS THE signal without using EXITS ABOUT THE avoid unsafe signaling
 - Normal and fault mode status: flashing, colors and frequencies
 - **Certifications** : TS EN 12675, HD 638
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2. Time Counter 200 mm

- Diameter : Ø200 mm
- LED: 5 mm, red/green color
- Color Body : Black
- Material : 100% Polycarbonate
- Supply voltage: 220 V AC, 50 Hz
- consumption The Power : 15 Watt / module
- coverage Protective : Airtight box
- Working temperature : -40 / +60 ° C
- Body compliance with TS EN 12368 standard
- Signal body composition:
 - 1 body with canopy (visor)
 - 1 lid
 - 2 brackets
 - washer rubber
 - Mounting screws and O-rings

3. Time Counter 800x600 mm with LED

- Dimensions : 800 x 600 mm
- Weight: 24 kg
- Business The Body : Metal
- Case color : Black
- Supply voltage: 220 V AC, 50 Hz
- Business The Display OF THE digits : 7-segment
- Number The digits : 2 digits
- LED: 5 mm, red/yellow/green color
- consumption The Power : Max. 30 Watt
- Electronic data processing: ARM 32-base

4. Traffic light 200 mm for pedestrian

- Diameter : 200 mm
- Color / type The body : black
- : Power LED, red / green color
- Light distribution : Fresnel lens
- Power factor: PF > 0.9, THD < 20%
- consumption The Power : 8 Watt / module
- Supply voltage: 220 V AC, 50 Hz
- Certificate : TS EN 12368:2015, IP65
- Body/mask material: Polycarbonate (100% PC)
- Composition :
 - 2 shelters (visor)
 - 2 bodies
 - 2 lids
 - 2 holders
 - washer rubber
 - Mounting screws and O-rings

5. 200 mm Traffic Light for Vehicles

- Diameter : 200 mm
- Color / type The body : black
- Material : Polycarbonate 100% PC
- : Power LED, red / yellow / green color
- Light distribution : Fresnel lens
- Power factor: PF > 0.9, THD < 20%
- consumption The Power : 8 Watt / module
- Supply voltage: 220 V AC, 50 Hz
- Standards : TS EN 12368:2015
- Composition :
 - 3 shelters (visor)
 - 3 bodies
 - 3 lids
 - 2 holders
 - washer rubber
 - Mounting screws and O-rings

Note: Bodies, covers and holders are made of 100% UV-reinforced polycarbonate, with confirmed reports.

6. 300 mm Traffic Light for Vehicles

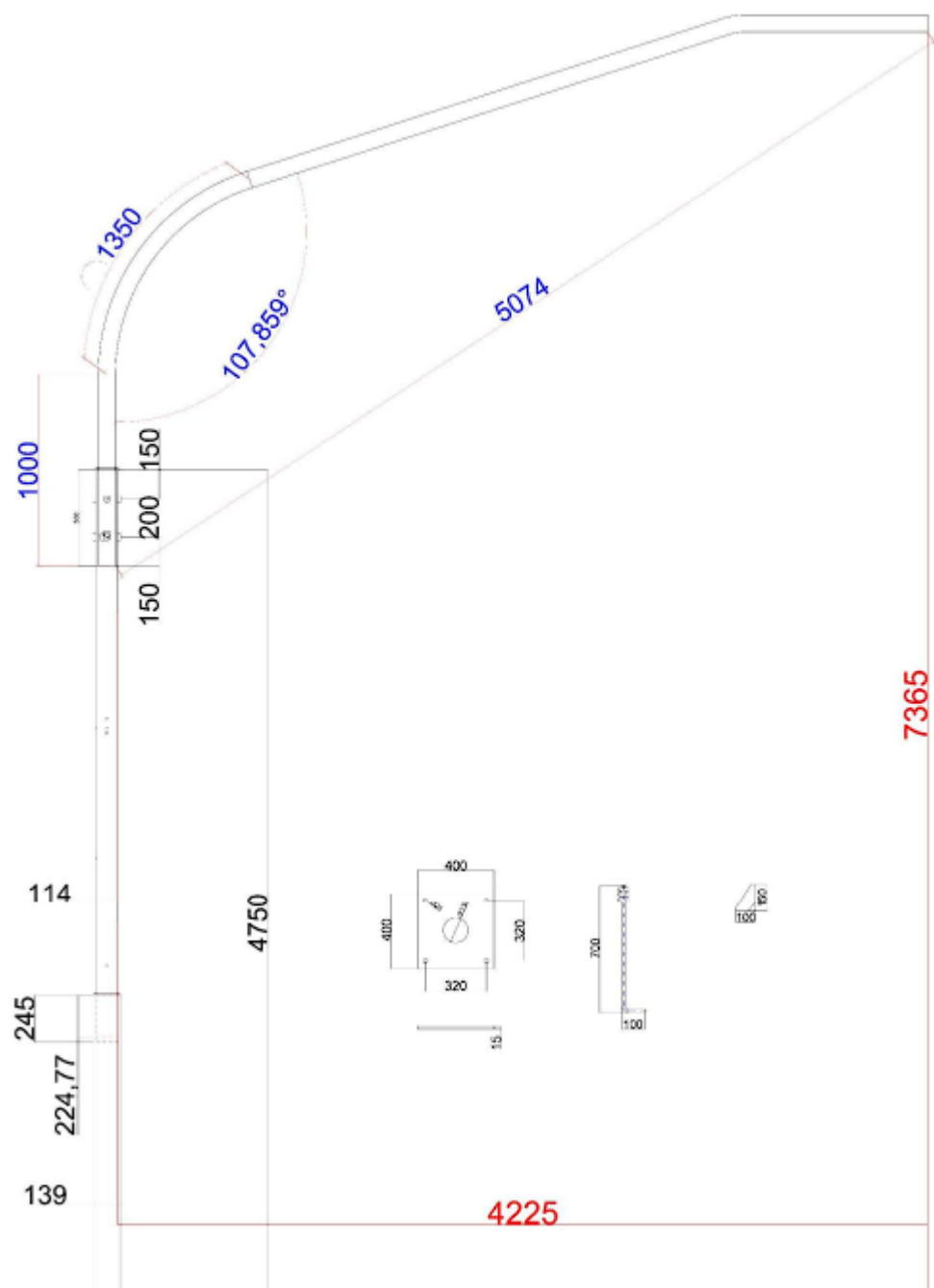
- Diameter : 300 mm
- Color / type The body : black
- Material : Polycarbonate 100% PC
- : Power LED, red / yellow / green color
- Light distribution : Fresnel lens

- Power factor: PF > 0.9, THD < 20%
- consumption The Power : 8 Watt / module
- Supply voltage: 220 V AC, 50 Hz
- Standards : TS EN 12368:2015
- Composition :
 - 3 shelters (visor)
 - 3 bodies
 - 3 lids
 - 2 holders
 - washer rubber
 - Mounting screws and O-rings

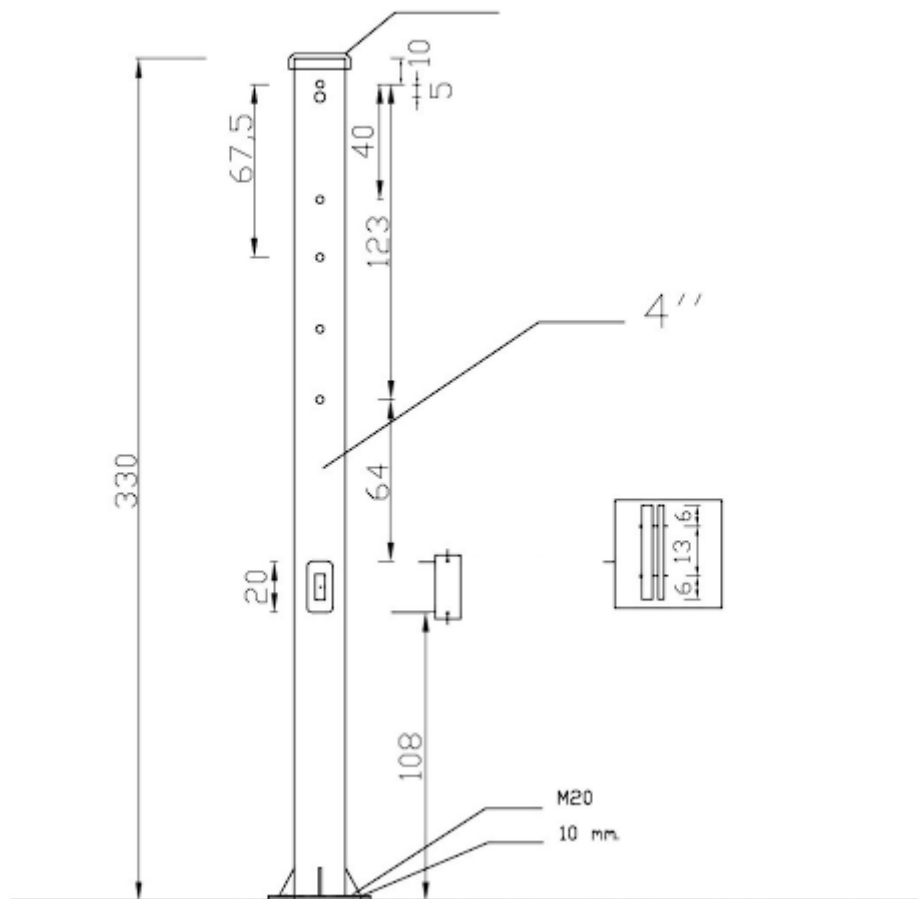
7. Traffic Light Poles and Supports

7.1. Arched columns

- Protection: paint coating (to be determined with the investor)
- Tube type: Cylindrical iron 114 x 4 mm / 139 x 5 mm / 89 x 4 mm
- Height : 6 m
- Anchor dimensions : 40 x 40 cm



- **Protection:** paint coating (to be determined with the investor)
- **Pipe Type:** Cylindrical iron pipe 114 x 4 mm
- **Height :** 4 m
- **Anchor Dimensions :** 25 x 25 cm



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