

SGA

Simin Gaman Aria

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AFR-1000 Installation Manual

Be
Different.



Safety Cautions:

- It is necessary to install and operate only informed and trained people.
- Before starting the installation operation, read this instruction carefully.
- Avoid opening the Flasher when it is power on in environments where there is a possibility of flammable gas.
- Before opening the Flasher, make sure it is power off.

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1 Introduction

The **AFR-1000** is a high-performance flashing beacon equipped with a 16J Xenon lamp or LED, designed for efficient and reliable obstacle signaling. It is ideally suited for marking structures such as chimneys, smokestacks, flares, bell towers, buildings, cranes, bridges, radio and TV towers, cableway pylons, power lines, wind turbines, radar and telecommunication antennas.

2 Mechanical Features

- 1) Body Material:
 - Aluminum (Epoxy-Coated)
- 2) Body Color: Red
- 3) Dimension: 240x230x100mm
Without Bracket:
- 4) Weight: Approx.1.5Kg

3 Main Features

1. Operating Voltage: 24 VDC/110 VAC/230 VAC
2. Rated current: ~410mA
3. Frequency: 60HZ
4. Power Consumption: Max 350 mA@ 24 VDC
5. Effective Intensity: 16J 300Cd
6. Service: Continuous
7. Cable entries: 2xM20
8. Approvals:
 - ATEX: (Exd IIB T6)
 - T6: -20 to +60 °C
 - Ingress Protection Rating: IP66

4 Ordering Numbers

AFR-1000-Y-V-U-Z

AFR-1000	Y: Voltage	V(Color)	U(Lamp)	Z(Polarized)
	<ul style="list-style-type: none"> •1: 24 VDC •2:110 VAC •3:230 VAC 	<ul style="list-style-type: none"> •R: Red •G: Green •B: Blue •Y: Yellow •A: Amber 	<ul style="list-style-type: none"> •X: Xenon •L: LED 	<ul style="list-style-type: none"> •X: Xenon •L: LED

Accessories:

- 1) Sunshade: Model AFR-1000-SS
- 2) Mounting Bracket: AFR-1000-MB

5 Installation Instructions

Installation of the flasher on-site, as well as opening or handling the installed device, must be carried out only by authorized personnel or certified installation and maintenance technicians approved by our company.

Failure to follow this instruction may result in fire, explosion, serious personal injury, or damage to equipment and property.

Please ensure the power supply is completely disconnected and verify the absence of any flammable gases or explosive materials in the surrounding area before beginning any work.

According to the type of installation, it is possible to install the Flasher on the ceiling, wall, and on a two-inch pipe base. If the flasher does not have a mounting bracket, go to Item 5.3 ; otherwise, follow the below steps:

5.1 Mounting Bracket Installation

5.1.1 Preparation

- Ensure all components listed in the parts list are available: stud screws, lock nuts, flat washers, and spring washers.
- Verify that the mounting surface (ceiling, wall, or 2-inch pipe base) is clean.

5.1.2 Bracket Attachment to Structure

- Position the mounting bracket on the desired surface.
- Use 2 pcs M8×30 steel grade 8.8 screws with lock nuts, flat washers, and spring washers to secure the bracket to the structure. Tighten firmly.

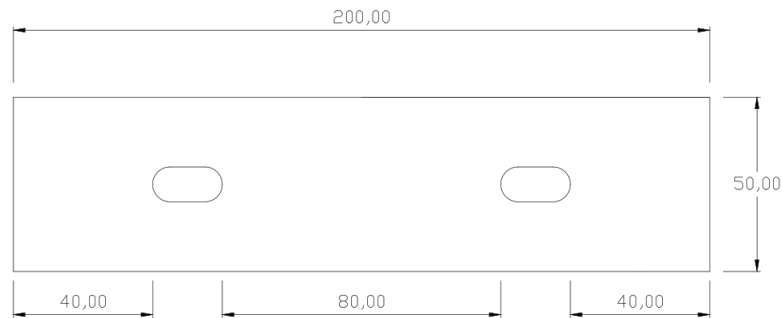


Figure 1: Bracket Attachment to Structure

5.1.3 Bracket Connection to Flasher Body

- Align the bracket with the Flasher body.
- Insert 2 pcs M5×10 stainless steel screws to lock the bracket to the body.

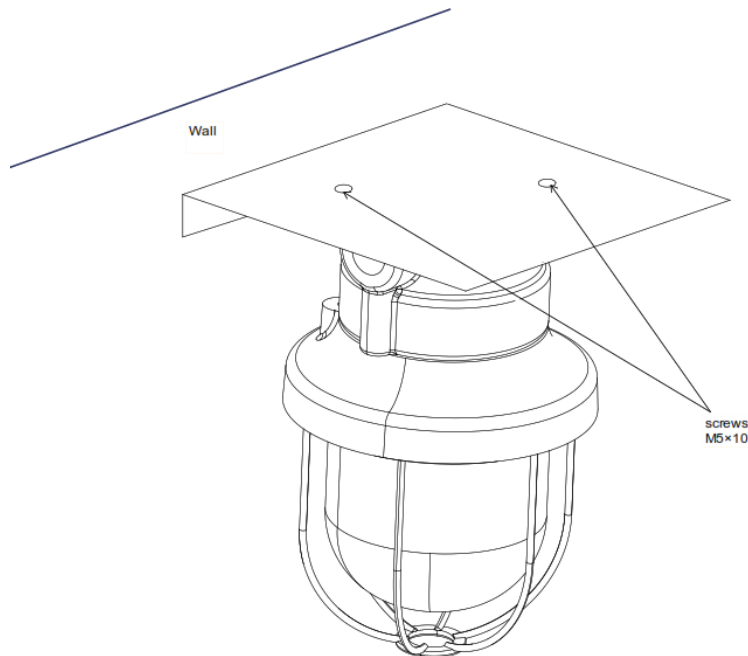


Figure 2: Bracket Connection to Flasher Body

5.2 2" Pipe Mounting Bracket Installation

- Align the 2" Pipe bracket with the Flasher body.
- Insert 2 pcs M5×10 stainless steel screws to lock the bracket to the body.

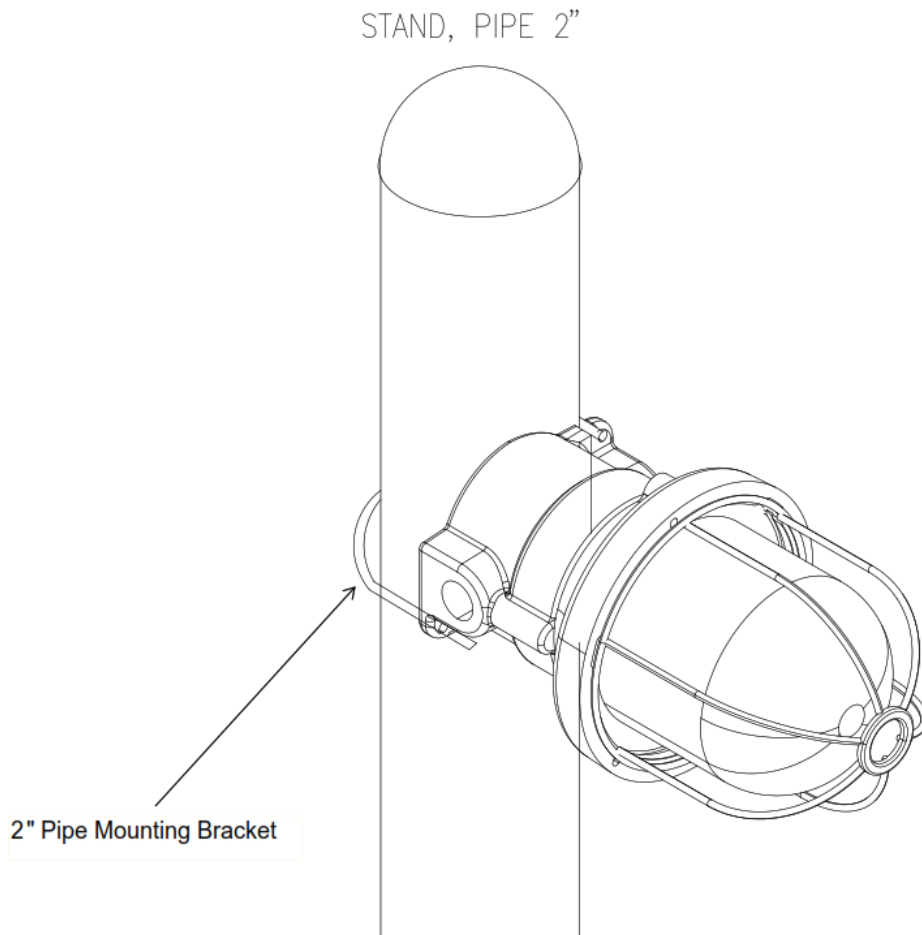


Figure 3: 2" Pipe Mounting Bracket Installation

5.3 Mounting Directly to Wall

- Align the Flasher body to Wall According to Figure 4
- Insert 2 pcs M5×10 stainless steel screws to lock the body to Wall.

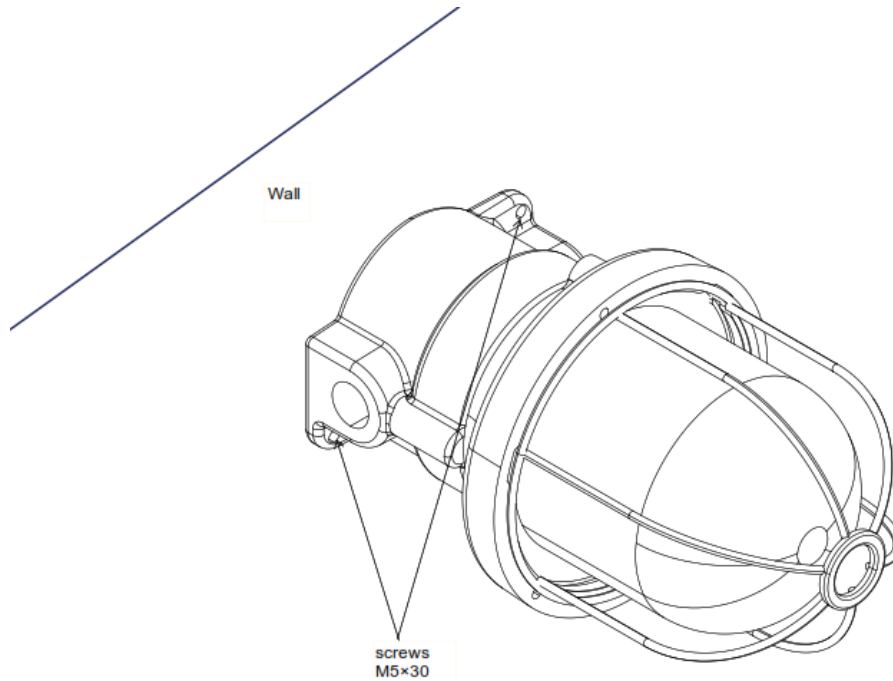


Figure 4: Mounting Directly to Wall

5.4 Opening the Top Cover and Lamp Housing

To perform wiring and installation, first remove the top cover of the AFR-1000 flasher by rotating it counterclockwise.

Then, remove the Xenon lamp housing by gently twisting it off the main body.

No screws are involved, as the top cover use a secure twist-lock mechanism, and the lamp housing is secured by plastic clip

5.5 Cable Entry and Wiring

Feed the power cable through the cable gland installed on the device housing.

Next, connect the wires passed through the gland to the designated terminals inside the device, following the wiring instructions provided in Section 6.

Ensure all connections are secure and properly fastened.

5.6 Reinstalling the Lamp and Top Cover

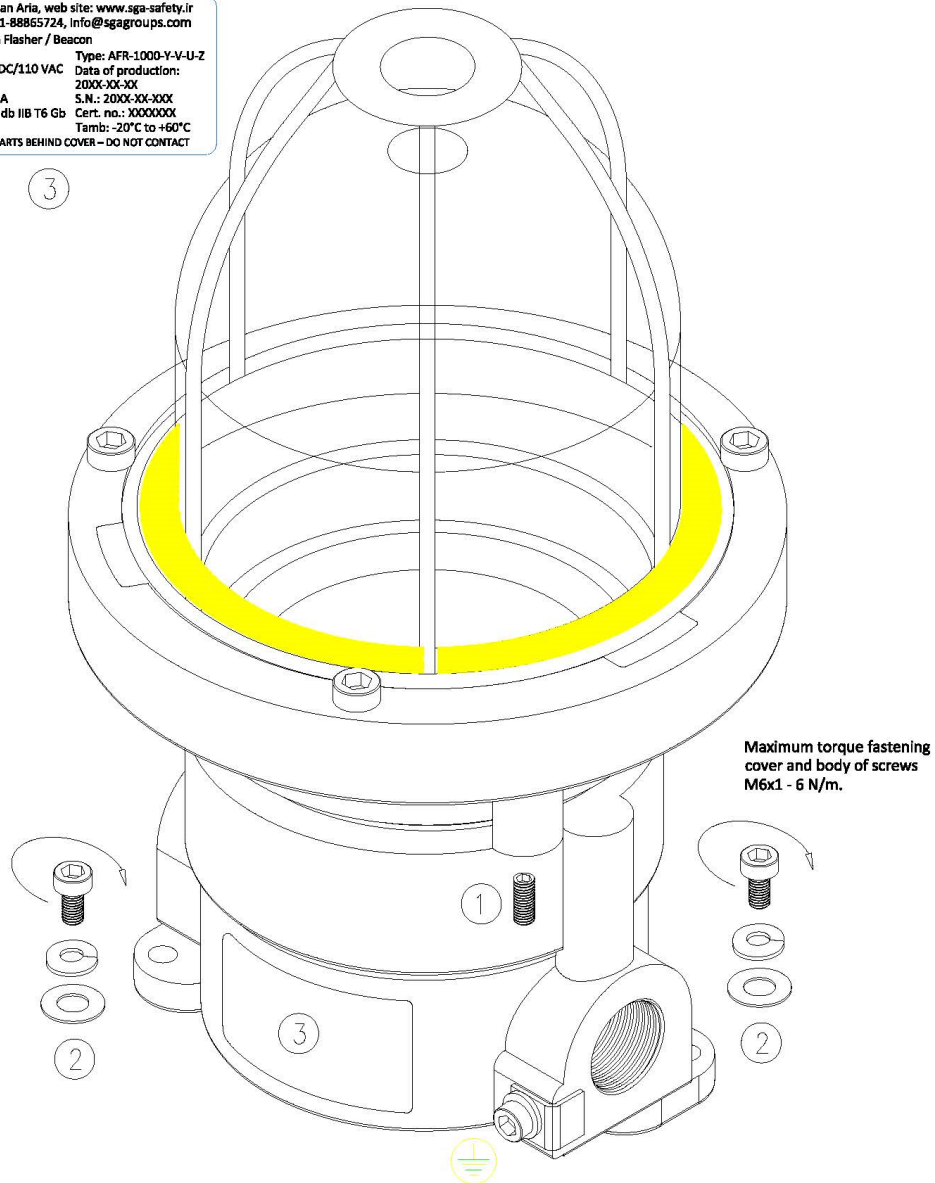
Insert the xenon lamp, align its plastic tabs with the slots inside the flasher body, and press it in until two clicks are heard

Finally, close the top cover by twisting it clockwise until it is fully sealed.

The device is now ready for operation.

5.7 Installation Mounting

SGIA Simin Gaman Aria, web site: www.sga-safety.ir
 Tell: +98-21-88865724, info@sgagroups.com
 Product name: Alarm Flasher / Beacon
 Power rating: 3 W
 Supply Voltage: 24 VDC/110 VAC /230 VAC
 Rated current: 350 mA
 Marking: II 2G Ex db IIB T6 Gb
 IP66
 Type: AFR-1000-Y-V-U-Z
 Date of production: 20XX-XX-XX
 S.N.: 20XX-XX-XXXX
 Cert. no.: XXXXXXXX
 Tamb: -20°C to +60°C
WARNING – LIVE PARTS BEHIND COVER – DO NOT CONTACT



- ① 1 n° Stud Screw 3x10, stainless steel grade A2-70 for lockable cover and body
- ② 2 n° Screws 5x30, steel grade 8.8 with Lock nut +Flat+Spring washer for connection bracket to structure

Figure 5: Installation Mounting

6 Input and Output Terminals and Wiring Diagram

The AFR-1000 flasher operates with a 24V DC power supply and is equipped with two main terminals for power input.

To activate the device, a constant +24V must be applied to the positive input terminal, and 0V (GND) to the negative input terminal. These are located on terminals 1 (Positive) and 3 (Negative) respectively.

** To connect flashers in series, a voltage of +24V must be taken from the positive output terminal and a voltage of 0V (GND) must be taken from the negative output terminal and fed to the input terminals of the next device. These voltages are located on terminals 2 (positive) and 4 (negative) respectively. According To Figure No 6 .

Use End Off Line Resistance Between V+ Input & V- Input to Achieve Line monitoring System.
No additional signals or connections are required .

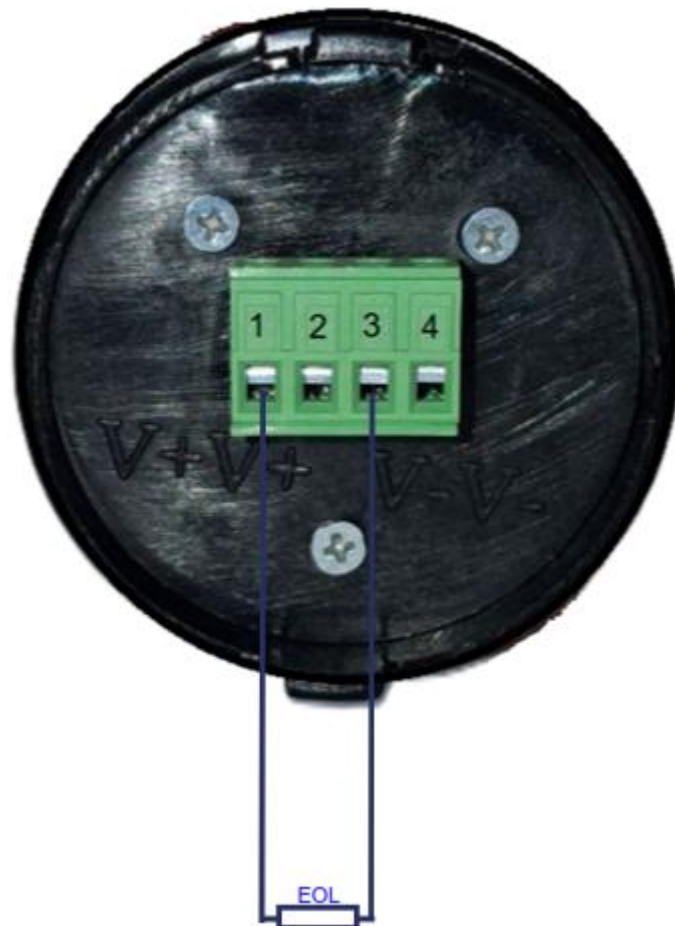


Figure 6: Wiring Terminal

7 Drawings and Dimensions

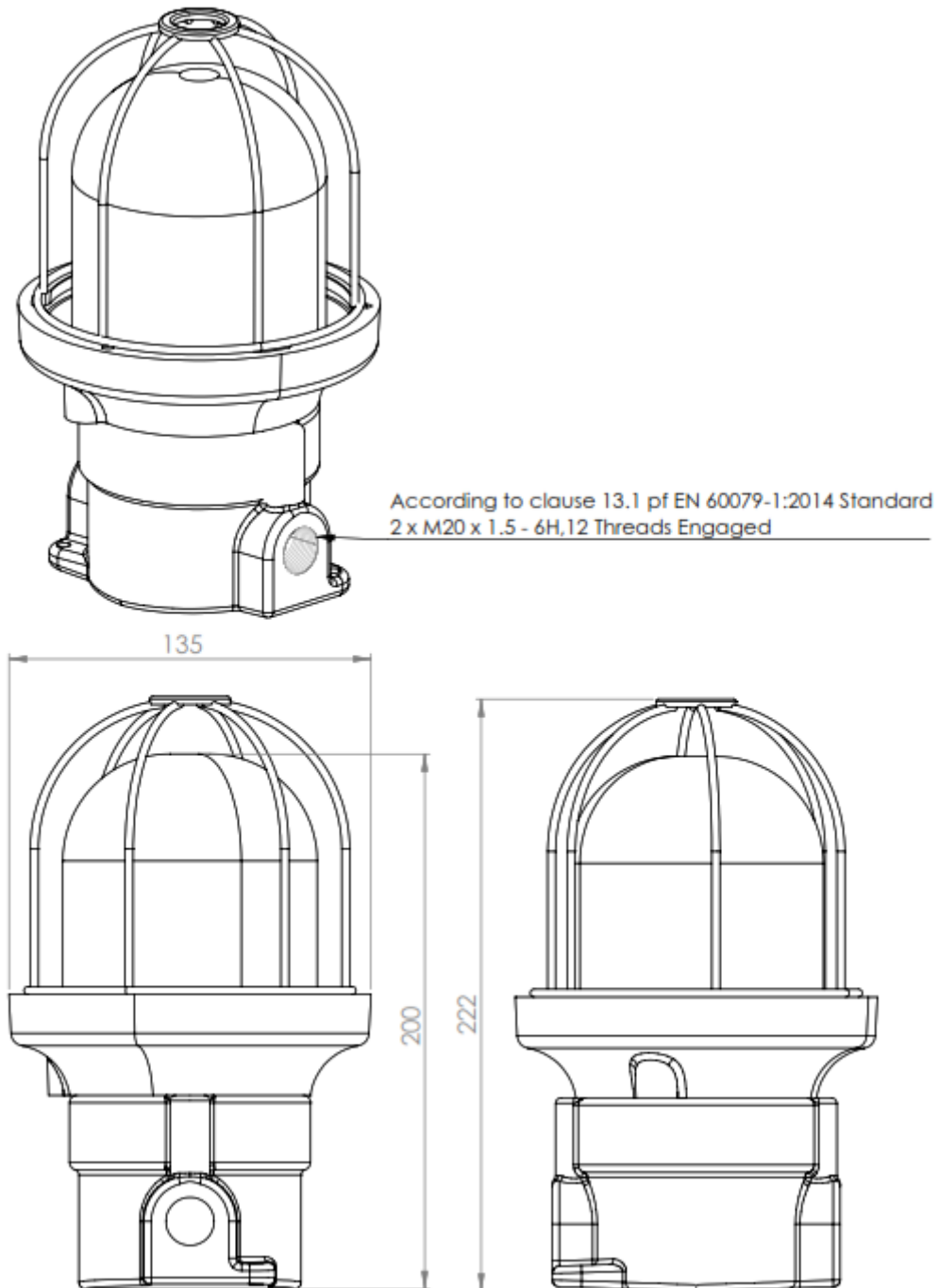


Figure 7: Overall, View & Dimensions

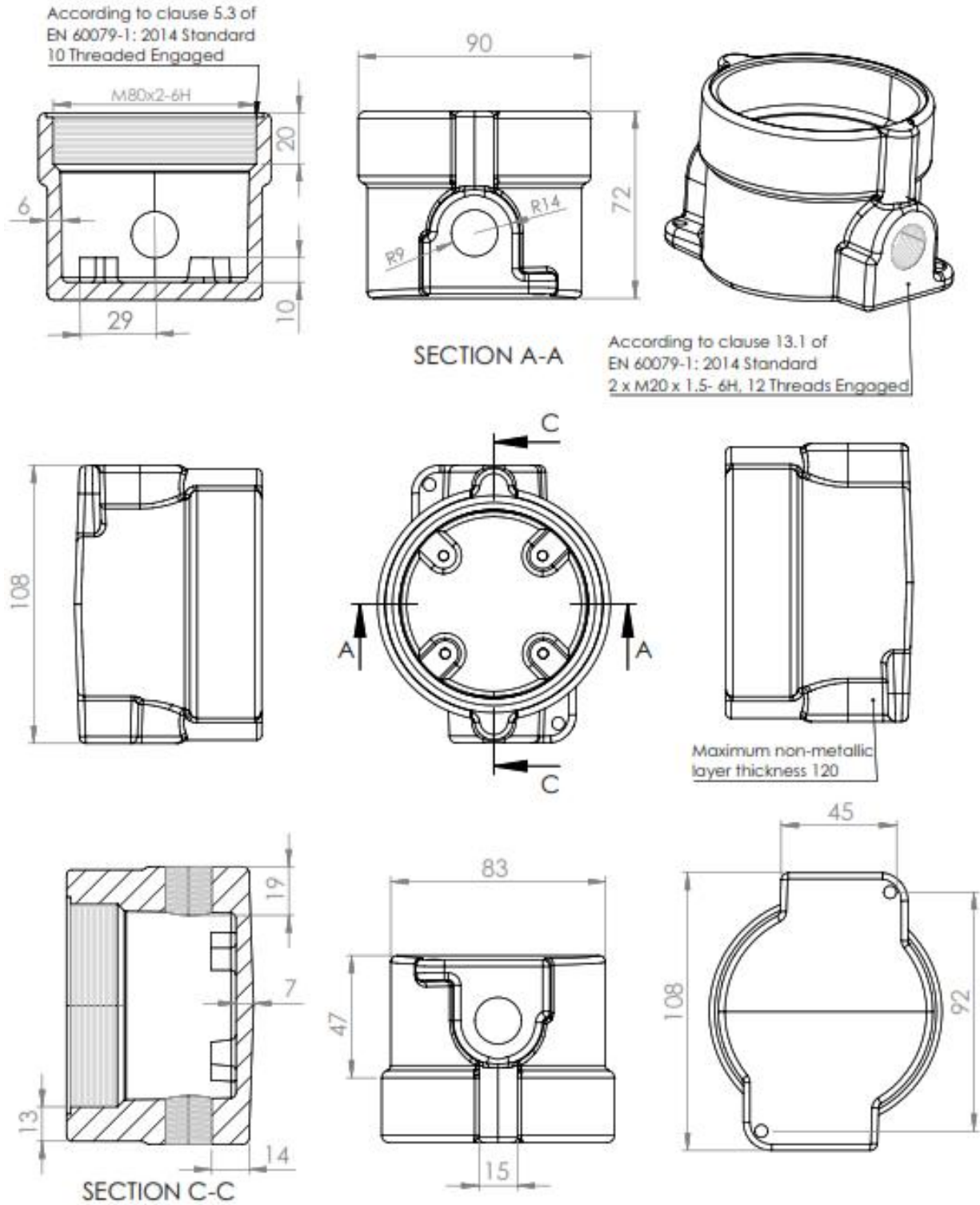


Figure 8: Body View & Dimensions