

OMS-201

INSTALLATION MANUAL

Ref : MI-OMS-201-D-EN

Code : EN-13615-019-D

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1 PREAMBLE

1.1 Subject of this manual

This manual explains how to install OMS-201 product.
Performances and other characteristics are shown in other documents.

1.2 Updates

Version	Date	Writer	Description
A	27/11/2008	B.W.	Translation from FR-13615-019-A
B	08/06/2009	B.W.	Final casing dimensions and drawings
C	30/10/2009	B.W.	Dimensions of metallic installation environment
D	19/03/2010	B.W.	Dimensions of metallic installation environment

1.3 Disclaimer

BALOGH reserves the right to make changes to this manual without further notice.

BALOGH does not assume any liability arising out of errors, oversight, or misunderstanding of following informations.

2 Composition of BRS System

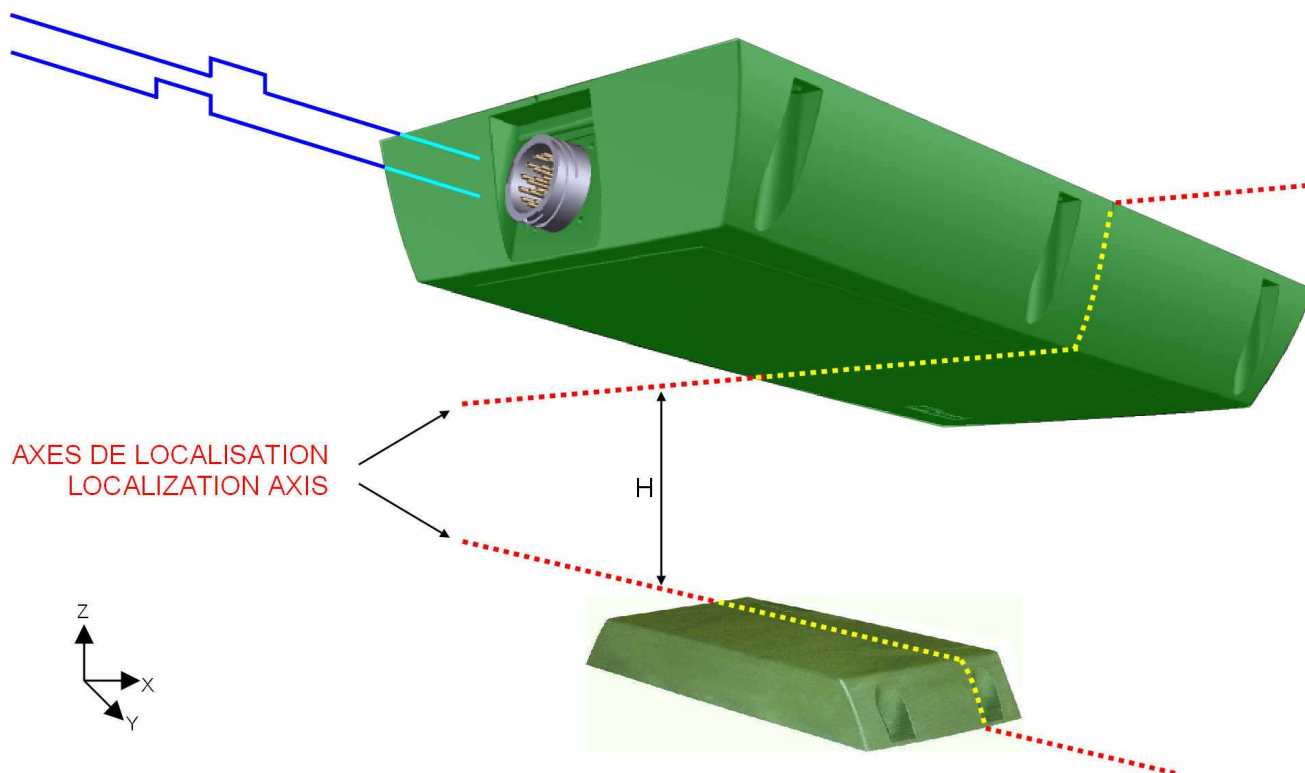
The beacon adjustment system is composed of :

- a reader embedded under the train (product code MOS-200)
- a beacon secured on the ground (product code OMS-201).

The reader is composed of a single unit equipped with a connector (bayonet lock 19 points).

The beacon is composed of a single unit. It communicates by radio-frequency with reader, and has no electrical connection on track side.

Upon passing over the beacon, the reader transfers various data (via the connector), among which a localisation top, when both casings' reference lines are vertically aligned.



Notice:

X shows longitudinal track axis (train movement direction)

Y shows transversal track axis

Z shows perpendicular track axis (vertical)

3 The OMS-201 beacon: mechanic installation

3.1 Mechanic specifications

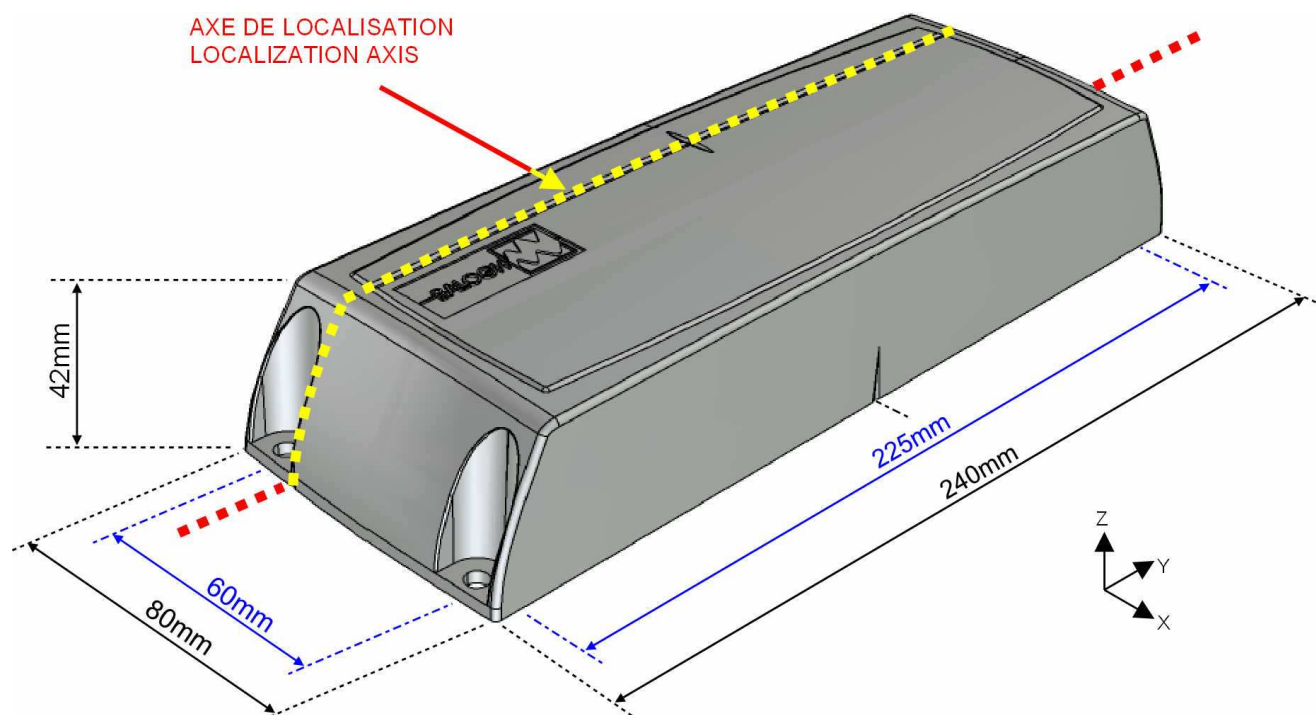
Dimensions of bare casing:

- L = 240 mm
- l = 80mm
- H = 42mm

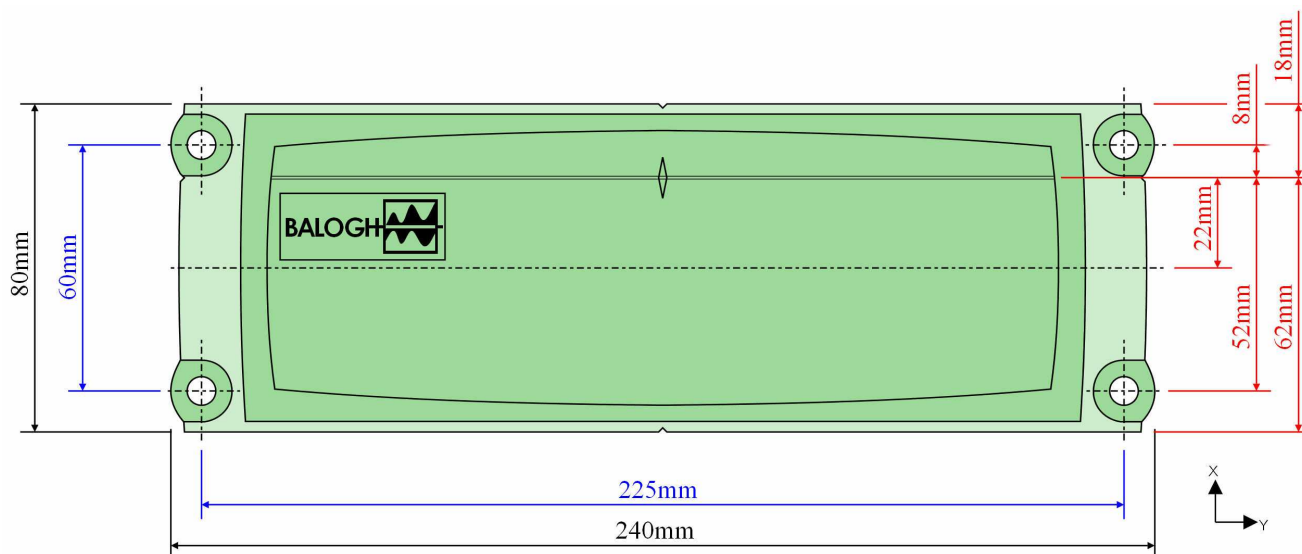
The securing of the beacon will be carried out by means of 4 screws \varnothing 6mm.
Recommended tightening torque is 5Nm.

3.2 Installation plans

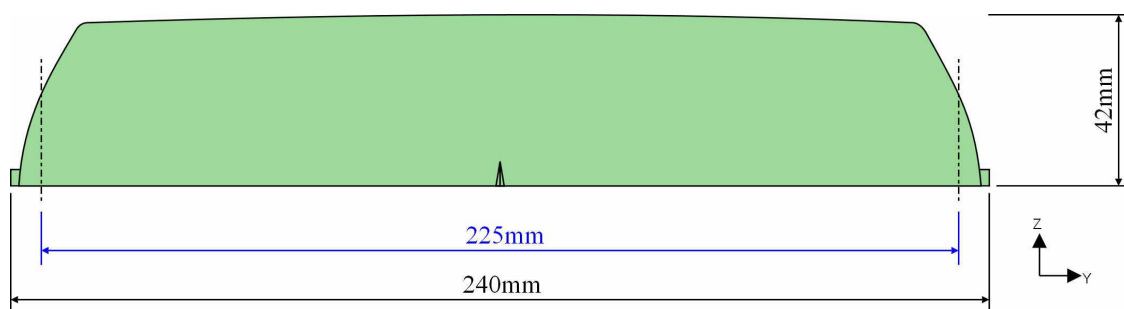
3.2.1 Perspective:



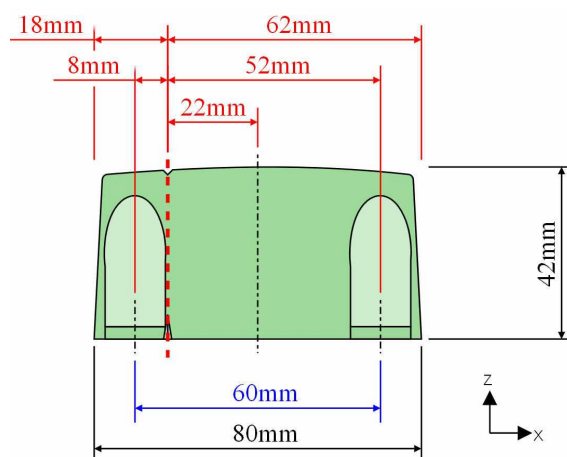
3.2.2 Top view:



3.2.3 Side view:



3.2.4 Front view:



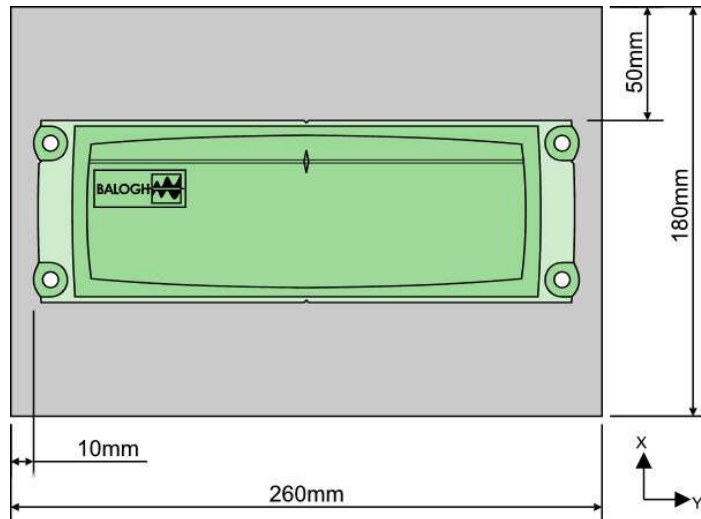
3.3 Beacon position constraints

- The beacon should be installed in the transversal direction (length of casing perpendicular to track axis).
- The reference axis for localisation should be offset by 22mm from the casing axis (mark on casing).
- Based on such offsetting, the beacon may be invariably installed in both directions.
- Distance H between top side of each beacon and under side of each reader of one installation must be between 60mm and 200mm.
- Tolerances of position to be observed for installing:
Lateral and angular tolerances of position must apply between each reader and each beacon of one installation. Indications below concerning beacon versus track installation are only suggestions

			Readers versus aux beacons	Reader versus train	Beacon versus track
ΔY	Lateral decentring		+/- 10mm	+/- 2mm	+/- 8mm
ΘX	Lateral inclination to the horizontal plane		+/- 10°	+/- 2°	+/- 8°
ΘY	Longitudinal inclination to the horizontal plane		+/- 15°	+/- 3°	+/- 12°
ΘZ	Rotation around the vertical axis		+/- 5°	+/- 1°	+/- 4°

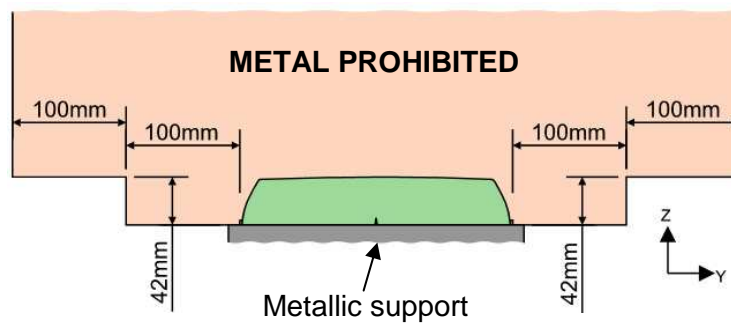
3.4 Beacon environment constraints

- The distance between 2 beacons must be a minimum of 2.50 metres (250 cm).
- The beacon should be secured centred on a metallic support 260mm x 180mm minimum. Such a support should be delivered as accessory (BALOGH part number PLA2618/OMS) :

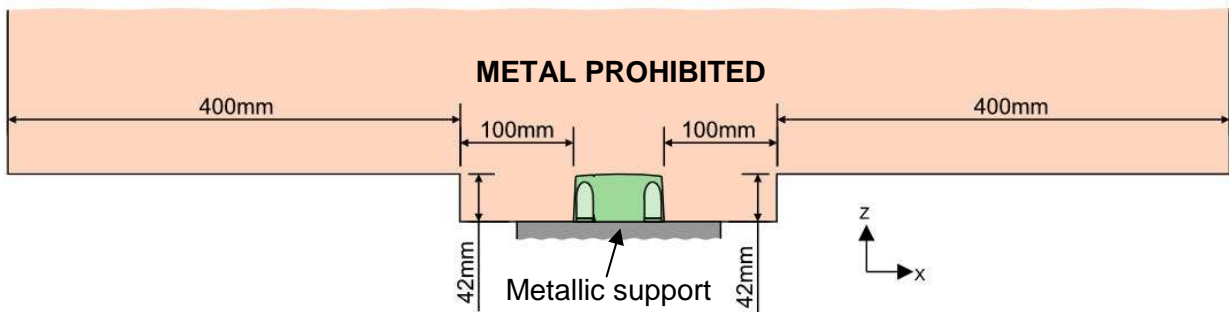


- If metallic parts are situated near the beacon, distances to be observed are indicated in figures below (coloured = no metal area) :

Transversal direction :



Longitudinal direction :



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