



# EM-100 RFID ROUND ELECTRONIC MARKER

## PRODUCT INTRODUCTION

The induction coil of the EM-100 series spherical marker is suspended on the antifreeze inside the sphere. No matter how the sphere rolls, the induction coil can keep horizontal and upward, providing perfect positioning accuracy. There is no need to consider the posture of the sphere during installation, which reduces the difficulty of installation.

The EM-100 spherical marker is designed and produced according to international standard frequencies, and is compatible with electronic marker locators designed and produced according to international standard frequencies (without ID mode). The EM-100 can also be equipped with RFID chips with two modulation modes, becoming electronic information markers. Through the ID number in the marker, ground detection personnel can clearly determine that what they have found is the target marker buried in advance, without suspecting whether it is an interference signal or a marker buried by other units. For ID markers, after obtaining the ID number, ground detection personnel can use the ID number to search for information related to the identified object stored in the cloud database (such as the type, specifications, and photos before covering with soil), which can achieve visual management of underground pipelines or facilities.



The EM-100-RW type marker, equipped with RFID chips, also supports writing simple information such as marker type and specifications directly into the internal chip of the sphere using the ML-1000 version locator before covering soil. For remote areas with poor wireless signals, or for users who are unable to upload marked object information to the cloud due to information security factors, a more direct information management solution is provided.

## APPLICATIONS

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EM-100 can be installed at a certain interval, or at the turning of changing trend and at some event points, such as connection points, valves, well covers, T-shaped branches, etc. According to the project importance and project budget, the installing density can vary from several meters to tens of meters, usually 10-20 meters.

- Pipeline path · Nonmetallic pipe · Various valves · Metering meter
- Various crossing points
- Tee
- Depth change
- Pressure reducing device
- Cathodic protection
- Pressure control point
- Embedded reserved port
- Various elbows
- Pipe diameter change
- Water well
- Cover
- Maintenance point

## BASIC SPECIFICATION PARAMETERS

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### ✓ Physical characteristics

- Shell: HDPE
- Weight: 360g±5%
- Case diameter -4.7in (120mm)

### ✓ Environmental characteristics

- Working temperature: -30°C-50°C
- Storage temperature: -30°C-70°C
- Drop test: it can withstand the drop from 5feet (about 1.5 meters) to the concrete floor
- Waterproof and dustproof: IP68
- Compression capacity: after bearing 4kN axial pressure (uniform pressure), the product has no permanent damage, crack and leakage, and its electronic function has no damage

✓ **Frequency (customizable):**

- Power 169.8khz
- Water 145.7 kHz
- Sanitary 121.6 kHz
- Telecom 101.4 kHz
- Gas 83 kHz
- P\_EU 134kHz
- General 66.35 kHz

## **DETECTION RELATED CHARACTERISTICS**

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<b>Characteristics</b>	<b>EM-100-RW</b>
No ID maximum detectable depth	1.5~1.7m
Maximum ID read depth	1.5~1.6m
Maximum write depth	0.3~0.5m
ID Number Format	3 digit customer number+10 digit ID number
Writable information content	Type and specification of the identified Not Supported object

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