



### To be used in hazardous areas

MSM has developed a GPS for hazardous areas, this module allows the synchronization between beacons with a 12-channel GPS receiver.

## FEATURES

- Classification:  
GROUP II: Equipment in surface (no mining).  
ZONE 1/2: Category 2.  
ZONE 21/22: Category 2.  
ATMOSPHERE: GAS and DUST.
- High-sensitivity GPS satellite reception module of 12 channels, with integrated antenna.
- Flash synchronisation between lanterns.
- A configurable sleep mode is available in order to save energy.
- Free-communication protocols.
- Protection degree IP66.
- Time and date according to GPS satellite signal, with self-adjusting for time zone.
- High-sensitivity GPS satellite reception module, 12 channels, with integrated antenna.



Designed specifically to be connected to MSM beacons, it is also perfectly suitable for synchronization between beacons made by other manufacturers, as the synchronization delay can be adjusted with the programming software.

Our GPS is protected for ATEX Zone 1 and Zone 2 areas.

The equipment is housed in a marine Aluminium enclosure painted with Epoxy paint to withstand the harsh marine environments, the tempered glass window allows a better connection, as the GPS antenna is integrated in our GPS module, so no external GPS antennas are needed.

**Certification: ATEX, IECEx, EAC & RMRS.**

**II 2 G Ex d IIC T6 Gb**  
**II 2 D Ex tb IIIC T85°C Db**

# GPS-EX

Electronic devices

## Synchronization

! Specifications subject to change without previous notice.

### Technical specifications

<b>Voltage:</b>	From 4 to 32V c.c.
<b>Average consumption:</b>	5 mA.
<b>Programming:</b>	PC (HyperTerminal).
<b>GPS receiver:</b>	12 channels, with integrated antenna.
<b>Synchronisation accuracy:</b>	2 ms.

### Materials and environment

<b>Temperature range:</b>	From -40° to +60°C.
<b>Body and cover:</b>	Marine grade copper free aluminum.
<b>Window:</b>	Transparent tempered glass.
<b>Dimensions (L x W x H):</b>	160 x 159 x 141 mm.
<b>Weight:</b>	1.5 kg.
<b>Watertightness degree:</b>	IP 66.

### Standards and Certifications

Gas: II 2G Ex d IIC T6 Gb

Dust: II 2D Ex tb IIC T85° Db

Group II: Equipment in surface (no mining).

Zone 1, 2, 21 & 22: Category 2.

General requirements: EN 60079-0 Standard.

Equipment protection by Flameproof Enclosure: "d", EN 60079-1 Standard.

Equipment protection by Enclosure Protection: "tb", EN 60079-31 Standard.

Temperature Class: T6. 85°C.

Protection against Gas: (G) and Dust (D).

Atex certificate n°: INERIS 02 ATEX 0069X

IECEx certificate n°: IECEx INE 14.0014X

EAC certificate n°: TC RU C-IT. Г 502.B.00689/18

RMRS certificate n°: 19.02521.280

### Options

Other specifications available under request:

- Internal anticondensate painting.
- AISI 316L stainless steel drain valve.

