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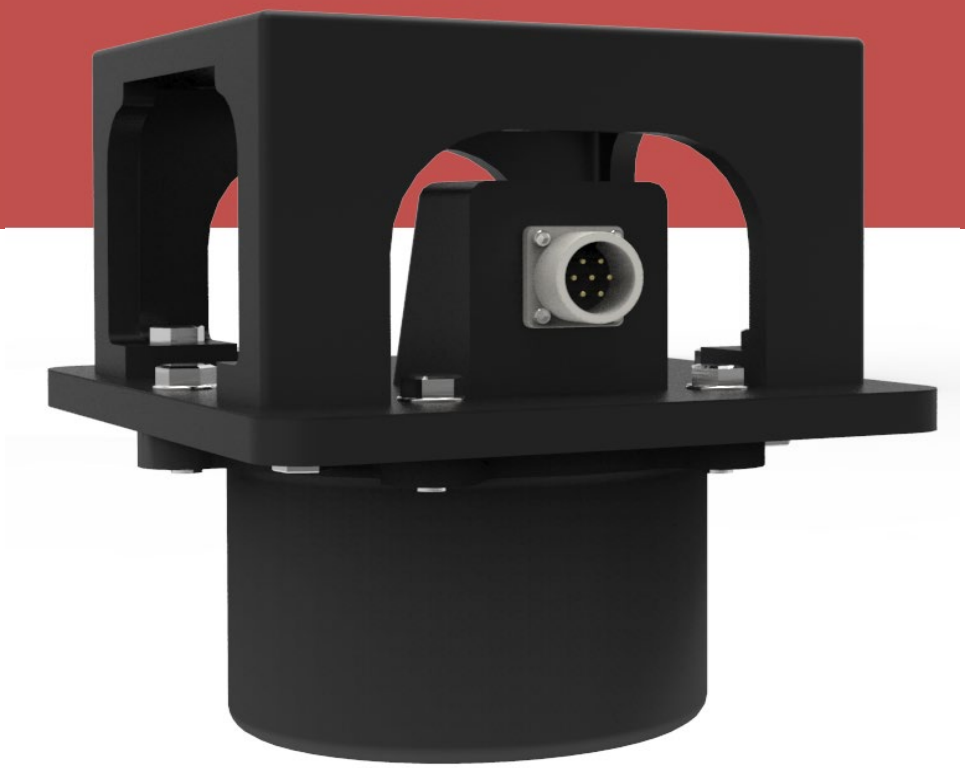
MagSense®

User Manual



MagSense® User Manual

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1. Introduction

The MagSense® is designed to accurately detect the sequence and polarities of magnetic fields emitted by the configurations of Automatic Warning System (AWS) track magnets. It features the latest integrated circuit technology in combination with a solid and robust enclosure to ensure high reliability and performance.

2. Basic Operation

The MagSense® is a magnet receiver which accurately measures the field strength of AWS track magnets and then sets its outputs according to the magnet polarity and a defined threshold. It provides a RESET function to default the outputs after the magnet has been measured.

3. Package Checklist

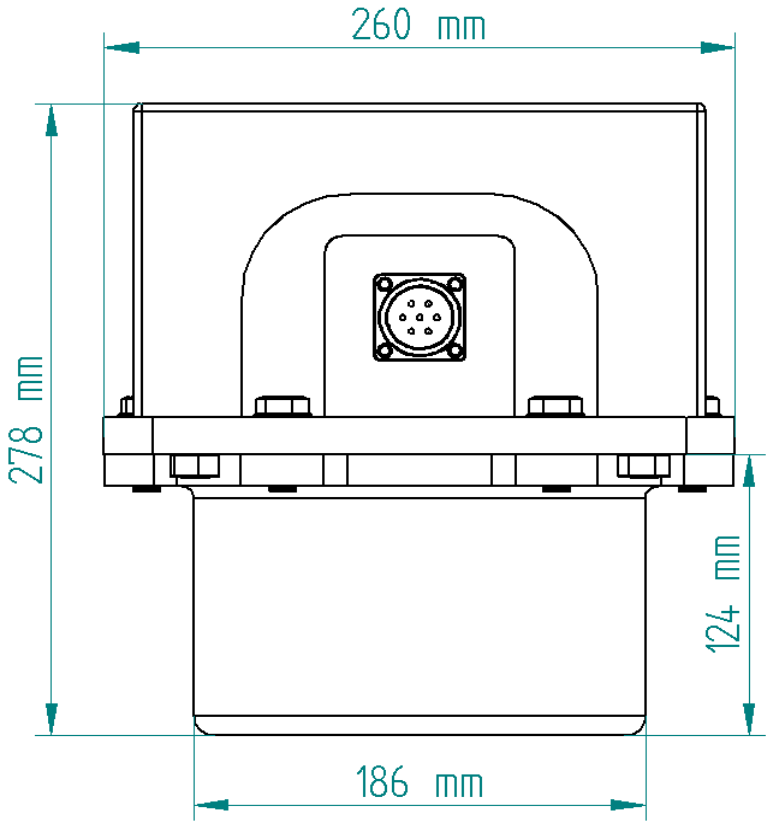
The MagSense® is shipped with the following items. If any of these items are missing or damaged, please contact our sales representative for assistance.

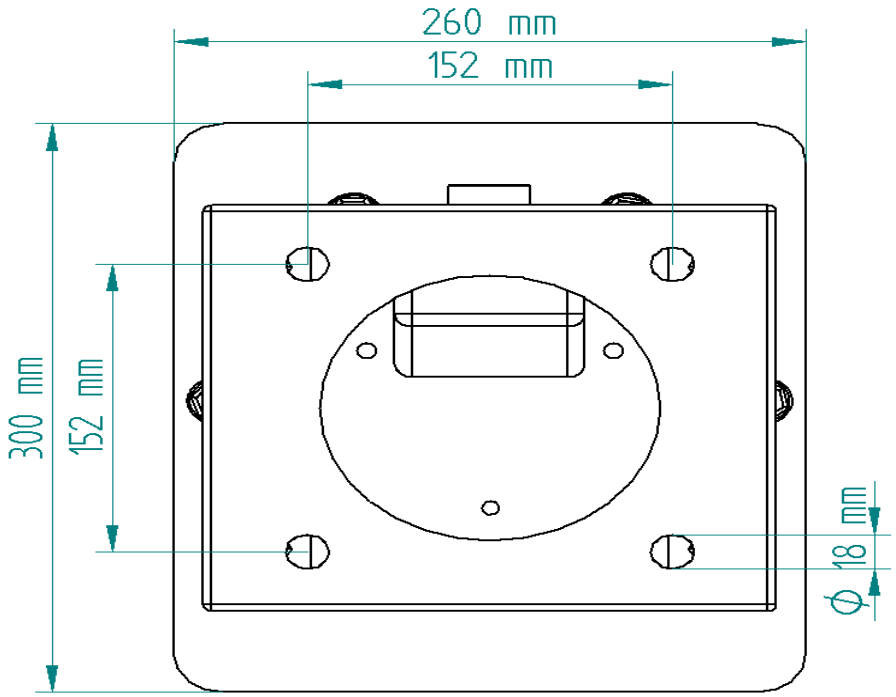
- MagSense®
- Quick Installation Guide

4. Product Features

- Wide Input Voltage
- Gel Filled
- Robust design
- Maintenance limited to functional testing only
- Retrofit option available to use with the existing UG/Fischer enclosure
- No moving part
- Easy installation

5. Dimensions





6. Pin Allocations

ITT Cannon CA-Bayonet Connector

PIN	Function
A	74VDC POS (PA)
B	NTH POLE OUT
C	STH POLE OUT
D	74VDC NEG (NA)
E	RESET
F	NC
G	NC

CA3102E20-15PBA176 Connector

Marechal Connector

PIN	Function
1	74VDC POS (PA)
2	NTH POLE OUT
3	STH POLE OUT
EARTH	RESET
N	74VDC NEG (NA)

01N4017 Connector

7. Operation Mode

The MagSense® can be configured to different operation modes depending on the application. The standard configuration is shown in the table bellow:

MD03 (Latching Outputs)				
INPUTS			OUTPUTS	
Reset	**South Field**	**North Field**	**South Output**	**North Output**
1	-	-	1	0
0	1	0	1	0
0	0	1	0	1

8. Ordering Information

Part Number			
Type	**Connector**	**Mode**	**Description**
MS	C	MD01	MagSense Cannon Connector MD01
	M		MagSense Marechal Connector MD01
MSR	C	MD01	MagSense Retrofit Cannon Connector MD01
	M		MagSense Retrofit Marechal Connector MD01

9. Technical Specifications

Power	
Input	50 to 150VDC
Consumption	10W
Input	
Reset Impedance	90KΩ
Minimum Reset Voltage	45 to 150VDC
Output	
Voltage	Within 10% of the supply voltage
Maximum current	50mA
Sensitivity / Threshold	
North	22.5 ± 2.5 Gauss
Maximum current	17.5 ± 2.5 Gauss
Mechanical	
Casing	IP67 protection, metal case
Dimension (W x D x H)	230mm x 230mm x 279mm
Weight	Approximately 6Kg
Environmental	
Operating Temperature	-25 to 70°C (EN50155)
Storage Temperature	-40 to 85°C
Ambient Relative Humidity	5 to 95% (non-condensing)
Regulatory Approvals	
Transient & Surge Testing	EN50155 (pending)
Vibration & Shock	EN61373 (pending)
EMC	EN50121-3-2 (pending)
MTBF	On request
WARRANTY	3 years