

XTRA.SECTOR SENSOR

User manual




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1 Getting started

This manual provides one with all the information needed to install and use the Xtra.Sector Sensor.

The Xtra.Sector Sensor is a product that can be used for loop detection. Depending on the Xtra.Beacon configuration, several functions can be performed such as controlling kart speed and lap-timing. The Xtra.Sector Sensor is powered through the Xtra.Transponder and therefore no batteries are required. The Xtra.Sector Sensor is a supportive product that could result in less dangerous situations. The Xtra.Sector Sensor is designed as supplement to make karting safer but cannot replace safe track procedures.

1.1 What is in the box

Before proceeding, make sure the box contains the following items:

1. Xtra.Sector Sensor



Figure 1 - Xtra.Sector Sensor

2. De Haardt network cable



Figure 2 - De Haardt network cable

1.2 Mounting

Each kart requires its own Xtra.Sector Sensor. It is essential that the Xtra.Sector Sensor is installed according to the descriptions below, otherwise performance problems or even damage can be expected.

The most important rules of installation are:

- The maximum distance between the loop antenna and the housing of the Xtra.Sector Sensor is 20 cm.
- For best performance the Xtra.Sector Sensor must be mounted flat on the karts plastic floor plate in line with the driving direction (printed arrow points to the driving direction). Metal floor plates may reduce performance.
- Keep the Xtra.Sector Sensor as far away as possible from tubes, iron or other electric conducting materials as well as the karts high current conducting cables.

The Xtra.Sector Sensor can be fixated using 4 plastic screws or tie wraps.

1.3 Connecting

This chapter describes how to connect the Xtra.Sector Sensor. The Xtra.Sector Sensor must be connected to a Xtra.Transponder through a network port. The Xtra.Sector Sensor has two identical network ports. This makes it possible to chain multiple De Haardt products into the De Haardt network. The network ports are normally protected with a rubber cap. This rubber cap has to be removed before the network cable can be attached. Connect one side of the network cable to the network port of the Xtra.Transponder followed by connecting the other side of the network cable to any network port of the Xtra.Sector Sensor.

It is recommended to install the Xtra.Sector Sensor on a single kart first and verify correct operation before installing it on other karts.



Figure 3 - Xtra.Sector Sensor



Check the polarization before fitting the connector!



Keep unplugged connectors (both sockets and plugs) completely dry and clean. Never expose them to water, fuel, oil, chemicals or any kind of dirt!



Make 100% sure that vibration CANNOT loosen the network connection as this can cause several problems like bad functioning of the system, corrosion of the network plug and socket, etc..



The Xtra.Sector Sensor is compatible with all De Haardt transponders.

2 Technical specifications

This chapter describes the technical specifications of the Xtra.Sector Sensor.

2.1 Specification overview

Description	Min	Typical	Max	Unit
Operational temperature	-10		55	°C
Operation voltage	3		24	V
Input current*	4	5	25	mA
Radio Range safety band**		20		cm
Radio frequency 1		125		kHz
IP code	IP65			

*Ambient temperature 20°C.

** The environment is of great influence on the achieved range.

2.2 Water and dust resistance

The Xtra.Sector Sensor is rated as an IP65 device.



De Haardt cannot be held responsible for water damage when:

- An network cable other than the one supplied is used.

3 Support

For support, one can contact the support department of De Haardt by email: support@de-haardt.com