



Meinberg Radio Clocks

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GOAL-S: GPS Optical Antenna Link - Single Mode

GOAL-S is a **GPS Optical Antenna Link** - Set for connecting a Meinberg GPS antenna/converter (GNSS | IF | 15 V DC) with a Meinberg GPS receiver via a **Single-Mode** fiber.

Key Features

- large antenna cable distances - up to 20km. using a continuous connection with a fiber type of category OS2 (0.4dB/km)
- no destructive overvoltage via the antenna cable
- no unintentional monitoring possible via optical fiber

Description

The GOAL-S-R module is connected to the GPS antenna input of the receiver via a coaxial cable at receiver side and can be mounted directly or close to the receiver. The GOAL-S-A module is mounted inside the building and is connected to the Meinberg GPS antenna/converter unit via a coaxial cable.

The two modules are interconnected via E9/125[[Mikro]]m single-mode fiber. This type of antenna connection has the following advantages:

- * long antenna cable runs possible (up to 20 km)
- * no danger caused by overvoltage damage via the antenna cable
- * tap-proof security communication through fiber optic connection

The GOAL-S/R module installed at receiver side is powered by the Meinberg GPS-IF receiver via the coaxial cable. The GOAL-S/A module, installed on the antenna side, requires an external power source for its own power supply for operation, as well as for powering the connected antenna. An unconnected antenna and a short circuit on the antenna line are indicated by a status LED.

An additional LED indicates that the 10MHz reference is being received by the GPS-IF receiver with sufficient signal strength and that the fiber optic link is working properly. Only when these two status LEDs are green the built-in FP laser is switched on. The switching-on of the laser is indicated by another status LED.

The system is suitable for the subsequent extension of existing Meinberg GPS systems. The following GPS receivers are suitable for use with a GOAL-S Antenna Link:

GPS180

GPS180SV

GPS180PEX

GPS180AMC

GPS180XHS

GNS181-UC

and older receivers of the series GPS163, GPS164, GPS165, GPS167, GPS168, GPS169 and GPS170 (but not GPS166!).

When using the GOAL-S Antenna link in combination with the GPS signal converter GPSTGEN1575, please note, that the function of connected GPS (L1) receivers from other manufacturers can not be guaranteed!

Characteristics

Type of Antenna	Input for Meinberg GPS antenna (not included), antenna circuit 1000 V DC insulated
Optical Outputs	SC-APC connector for connecting an E9/125µm SMF * wave length: 1550nm (transmit), 1310nm (receive) * coupling optical power: max 1mW (0dBm), typ. 500µW (-3dBm) * optical input power: min. 1µW (-30dBm)

Electrical Connectors

- * SC-APC connector (FO Link)
- * N-Norm socket (Meinberg GPS-IF Receiver)
- * power supply via 5pol. DFK connector (GOAL-S/A only)
- * ground terminal via 6.3mm flat plug (GOAL-S/R only)

Operating Voltage	GOAL-S/A: 100-240 V AC / 50/60Hz optional: 20-60 V DC power consumption: 5W max.
Form Factor	GOAL-S/A: black eloxadized aluminium housing, with aluminium front and back wall GOAL-S/R: anodized aluminum housing with aluminum front and back wall with clamp for 35mm DIN-railmount protection class: IP30
Physical Dimensions	GOAL-S/A: 44mm x 105mm x 165mm (height x width x depth) GOAL-S/R: 28mm x 69mm x 85mm (height x width x depth)
Supported Temperature	-25 ... 65° C
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

The English manual is available as a PDF file: [1][Download \(PDF\)](https://www.meinbergglobal.com/download/docs/manuals/english/goal-s.pdf)

Links:

[1] <https://www.meinbergglobal.com/download/docs/manuals/english/goal-s.pdf>