

MOBILITY

TRAFFIC



STAR C-500^{GP}

NON-INTRUSIVE
SINGLE TECHNOLOGY SENSOR

GENERAL CHARACTERISTICS

The **STAR C-500^{GP}** is a non-intrusive, high performance, low power (GP - Green Power) sensor, used for counting and classifying vehicles and measuring traffic flows.

The sensor has been designed by Famas System S.p.A. on the basis of advanced microwave technology. The **STAR C-500^{GP}** is designed to be installed directly over the centre of the lane it monitors.

Its low power draw makes it high versatile in use, since it can be powered by a photovoltaic panel as well as directly by the mains (230 V / 50 Hz).

The **STAR C-500^{GP}** detects the number of vehicles in transit, their direction of travel, their individual speeds and lengths, the headway and gap, the vehicle class (configurable), and measures the time the lane is occupied.

The **STAR C-500^{GP}** has optional functions for automatically detecting traffic events, thanks to the HIOCC and HIOCC II algorithms in its firmware.

This enables the **STAR C-500^{GP}** to automatically identify traffic accidents and jams, and generate alarms, based on the following categories: normal, slow, stationary and Stop-And-Go.

The **STAR C-500^{GP}** works in both directions of travel, and can thus detect vehicles travelling against the flow: it can therefore continue working in case of overtaking, lane changes, open worksites, and so on.

A single STAR-BUS cable (RS485 + power) connects the sensor to the local controller. For local controls, the unit connects via USB or Bluetooth® to the local controller, or one can use the STAR-TER converter to connect the **STAR C-500^{GP}** directly to a PC.

The STAR-Manager software (for PC) provides the following local functions (with a special safety procedure which prevents incorrect configurations): data read and display; firmware update; basic parameter configuration and setting - sensor address, installation height, normal traffic direction.



PRINCIPAL CHARACTERISTICS

- Highly precise measurements
- Single microwave technology
- Vehicle classification into 8+1 or 9+1 types
- Traffic conditions detection
- Low power consumption (GP: Green Power)
- Bi-directional operation



TECHNICAL SPECIFICATIONS

TECHNOLOGY

- Microwave

OPERATING CONDITIONS

- Temperature: -20 °C ... +60 °C
- Humidity: 0 % ... 100%, without condensation

POWER

- 12 V_{DC} ... 24 V_{DC}

CONSUMPTION

- 1 W approx.

OPERATING CONTROL

- STAR-BUS (RS485 + power)

OUTPUT

- STAR-BUS (RS485 + power)

OUTPUT DATA

- Number, direction, speed, length, occupation time, headway and gap between vehicles, vehicle category.

DATA GENERATED

- Time stamp in milliseconds
- Sensor diagnostics

DIMENSIONS AND WEIGHT

- 165 X 95 X 280 mm (H X W X D)
- 1,8 kg without accessories

ENCLOSURE MATERIAL

- ABS
- Stainless steel roof

PROTECTION RATING

- IP66

MOUNTING SYSTEM

- Collar / locking assembly

MOUNTING

- Height: 6 m 7,5 m
- Position: aligned with centre of lane

FASTENERS

- Screw, 2 circular M12 fasteners

OPTIONS

- HIOCC and HIOCC II algorithms for detecting traffic accidents and jams with traffic status categorisation: normal, slow, stopped

ACCESSORIES

- Mounting kit (40 mm 80 mm dia. poles)
- Power and communications cable to hook up local control unit to **STAR C-500^{GP}**
- Power and communications cable to hook up multiple **STAR C-500^{GP}** units
- STAR-TER converter