

Dual Channel Loop detectors « STB - STD ».

The DUAL channel STB and STD series have been developed for applications requiring 2 loops.

The STB series acts as 2 independent detectors. The multiplexing function minimizes all interference risks between both loops.

The STD series uses the 2 loops for vehicles direction discrimination, over-speed information or size classification.

Parameters are set on front-face and can be locked by the user.



Applications:

- ✓ Traffic and signalling control.
- ✓ Access control.
- ✓ Parking, barriers and bollards management.
- ✓ Toll gates control.
- ✓ Driving direction discrimination.
- ✓ Speed signalling.
- ✓ Vehicle size classification.

Properties:

- ✓ Self checking and loop self tuning.
- ✓ Clear visual diagnostics by LED.
- ✓ Time multiplexing between 2 loops
- ✓ Reliable: high technology microprocessor.
- ✓ Speed detection between 40 and 90 Km/h
- ✓ ΔF shift for each loop independently
- ✓ Easy installation and adjustments.

Main features:

• Technology

The STM detector is based on the magnetic induction principle. An inductive loop (WAB) buried into the ground is linked to a detector (STM) which gives the information to the control system.

• Integrated self diagnostics

When switched on, a self diagnostics of the all installation is operated. Then a permanent control takes place. Clear messages (7 possible defaults messages) can be displayed by LED indicator : frequency, state loop circuit, turns, instability ...so that the installation is perfectly operated.

• Self checking and self tuning

Integrated functions to avoid bad operating. Easy and reliable set up without any tuning.

• Double galvanic insulation

High immunity of the loop and power supply cable against earth leakages.

• High and constant sensitivity

2 wheels detection possible. Constant sensitivity whatever loop quality. Easy adjustments by potentiometers.

• Drift compensation

Self calibrating calculation brings reliable controls and allows a 40°C/hour drift.

• Easy set up

DIN-rail socket and removable rear mount 11-pin connector.

• Multiple time delays

Easy adjustment by potentiometer.

• Loops management

Signal processing and time multiplexing avoid interference risk on multi-loops sites.

• Vehicle presence time

Depending on the application, presence time can be limited (reset) at 4mn or unlimited. Permanent detection (without reset) is also available.

• Over-speed information STD-V

Adjustable according to preset thresholds between 40 to 90 km/h (measuring precision 5% at 60 km/h).

• Classification, size detection STD-1EC

2 Relay outputs : 1 for driving and presence detection, 1for the vehicle size information.

• Compatibility

Detectors compatible with existing loop installations and all controllers.

Technical characteristics:



Technology	Magnetic detection by inductive loop.
Sensitivity dL/L	Constant on all the inductance range
Sensitivity dynamic	Factor 100, adjustable by potentiometer from 0.004% to 0.4% - 0.5%
Loop inductance	Min = 10 µH Max = 1500 µH
Mode	STB : Omni directional / STD : Directional and overspeed.
Output and Commuted power	Relay. NO/NC relay = 5A / 250 Vac positive security. Mini 10mA/ 10 VDC
Reaction time	Constant on all the inductance range, independent from frequency : 90 ms Typ.
Power supply	230, 127, 48, 24 Vac / 48 to 62 Hz / 12-24 Vdc / 12 to 24 Vacdc
Power tolerance	AC = ± 15% / DC = -10% +20%
Power requirement	< 1,5VA
Power cut operation	0,5 sec. typically
Temperature range	Stock : -50 to +85°C Use : -30° to +70°C.
Housing/dimensions/Weigh	IP 40 / with socket 80 X 40 X 102 mm / ~220 g.
Connection	DIN-rail socket , removable rear mount 11-pin connector
Adjustments	Switch and potentiometers / possible locking by user
Display	Output relay state and diagnostics message by LED.
Norm	Conform to EC norms. Loop and power supply inputs protected against lightning.

Technical notice under request : ST62001A

Options :

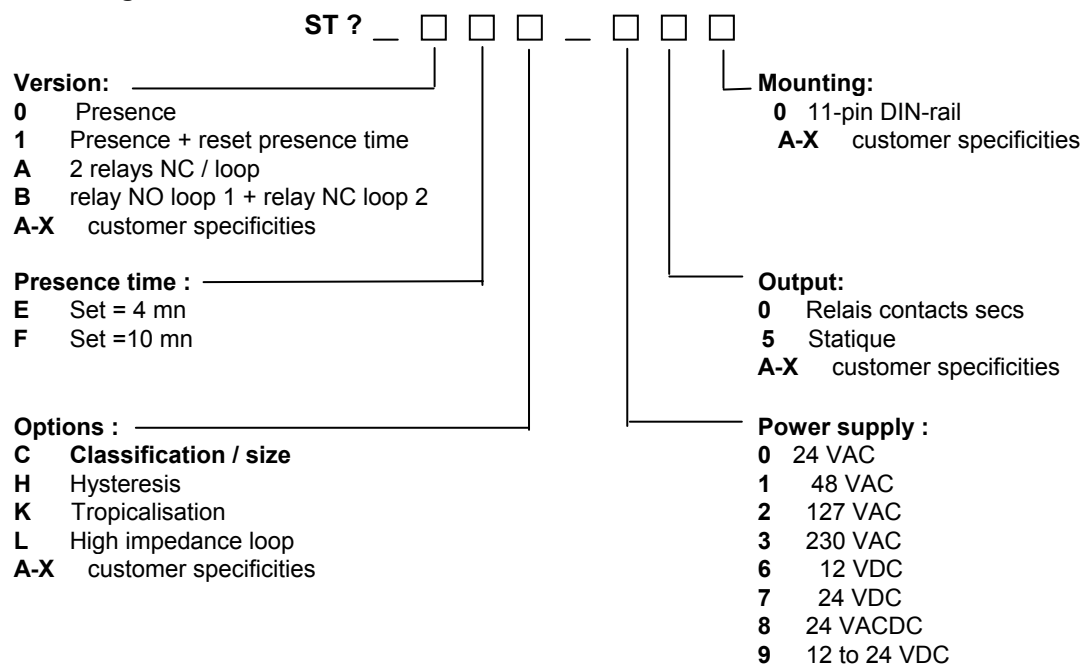
- Specific socket cable.
- Delivery without socket.
- Overspeed values on the STD-V

Glossary:
 NO = normally open ; NC = normally closed
 NO/NC functionality: power supplied when product is out of detection.
 Positive security: closed relay when out of detection.

Accessories:

- Ref.: WAB-0 -1XX Prewired loop, with 10m cable link, perimeter 6 - 9 -12 – 16 m
- Ref.: WAB-0 -0XX Precabled connector

References organisation: STB = Dual Channel / STD = Directional / STD-V = Over-speed / STD-1EC = Size



Preferential references:

- STB-0.- 300:** Dual channel detector, output NO+NO positive security, power supply 230VAC.
- STB-1E.- 300:** Dual channel detector, output NO+NO positive security, Ltd. presence time 4 mn, power supply 230VAC.
- STB-1EH- 300:** Dual channel detector, output NO+NO positive security, Ltd. presence time 4 mn, hysteresis on detection, 230VAC.
- STD-1EC- 300:** Size detector, 1 output NO+ 1 NO for size, Ltd. presence time 4 mn, power supply 230VAC.
- STD-OV.- 300:** Over-speed detector 40 to 90 km/h, 1 NO + 1 NO for over-speed, power supply 230VAC.
- STD-1E.- 300:** Driving direction discrimination, ..., Ltd. presence time 4 mn, power supply 230VAC.

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