The 317 Single Channel Loop Detector



- Small size
- · Failsafe or failsecure outputs
- · Increased sensitivity
- · Dual output dry contacts
- · Easy to use controls
- · Automatic sensitivity boost
- Piggy back AC power cord
- · Second relay output mode selectable
 - -Pulse on entry
 - -Pulse on exit
 - -Second presence output
 - -Loop fault output
- Current and historical loop fault indicators
- Compatible with existing equipment
- · Automatic tuning
- · Consistent presence time
- Made in the USA

Commercial Electronics is pleased to introduce the next generation detector, the Model 317 inductive loop detector for the drive-thru and access control markets. The Model 317 Loop Detector incorporates time tested detection techniques with state-of-the-art manufacturing processes resulting in a compact design that offers increased performance and compatibility with existing equipment.

The 317 is a single channel vehicle detector designed to provide vehicle presence information required by drive-thru communication systems, gate operators, ticket spitters, card readers, etc. Although compact and

lightweight, the 317 is designed to operate in the most demanding high volume control installations in all environmental conditions.

The 317 is a full performance detector that does not sacrifice features for the evolutionary reduction of size. Two outputs are available. One to provide the presence of a vehicle over the loop, the second is switch selectable to provide pulse on entry of the loop, pulse on exiting the loop, a second presence output or a loop fault output. Easy to use front panel slide switches provide positive identification of frequency and sensitivity settings.

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Specifications

Inductance Range: 18 to 1800 microhenries.

Automatically tuned

Frequency Range: 10 to 97 KHz

Temperature Range: -40°C to +80°C

Outputs:

Presence and Relay 2 are change over relay

contacts rated at 250VAC, 5A, 150W/600VA max.

Lightning and

Transient Protection: Zener diode protection from over voltage induced on loop and feeder leads. Flash over protection from loop to earth. Protection exceeds NEMA

specifications.

Supply Power:

120VAC VA Rating 1.2VA

Relay 2 Output:

Relay 2 Output Control Switch internally

programmable

SW3 SW2

OFF + OFF = Pulse on Entering the loop,

125mS ±25mS

ON + OFF = Pulse on Leaving the loop,

125mS ±25mS

OFF + ON = Second Presence Output

ON + ON = Loop Fault Output

Sensitivity:

Sensitivity settings are available using the

3-position front panel slide switch.

MAX = 0.02%

MED = 0.08%

MIN = 0.32%

Frequency:

One of three operating frequency ranges can be

selected with the front panel slide switch to climi-

nate crosstalk.

Reset:

The Reset button must be depressed for three

seconds for automatic retune. If depressed for less

than three seconds, it will show loop faults as

described below.

Loop Fault

Indications:

If the 317 sees a loop fault (open loop, shorted loop or greater than a 25% inductance change), the Presence LED will flash at a 16Hz rate. If the fault condition corrects itself, the Presence LED and detector will resume normal operation. This historic fault can be displayed by depressing the Reset button. The Presence LED will flash at 16Hz rate to indicate a fault has occurred. When the reset button is released, the detector will resume normal operation within three seconds.

Detector Failure

Conditions:

Two factory set options are available.

1 Failsafe (Standard) when supply or loop fails.

a. Presence output falls into detect state.

b. Relay 2 output falls in the quiescent state.

2. Failsecure when supply or loop fails.

a. Presence output falls in the quiescent state.

b. Relay 2 output falls in the quiescent state.

Presence Time:

60 minutes standard. Options: 8, 16 minutes or

permanent.

Dimensions:

3.5" High, 4.25" Long, 2" wide (excluding mount-

Loop

Red - Orange

ing ear on top).

Connections:

Relay 1 Relay 2

N.O. Yellow Com. Black

N.C. Blue N.O. White

Com. Brown