

625X DETECTOR

Inductive Loop Detector

Vehicle Detection

The Model 625X inductive loop detector from Peek Traffic Corporation is designed for the parking and access control markets. After more than 40 years in the traffic control industry, Peek's Model 625X detector is the latest in the company's long line of reliable, full-featured detectors. Time-tested detection techniques combined with state-of-the-art manufacturing result in a compact unit that offers increased performance and compatibility with existing equipment.

The 625X detector is a single-channel inductive loop vehicle detector that provides vehicle presence information required by gate operators, ticket spitters, card readers, etc. Although compact and lightweight, the 625X is designed to operate in the most demanding high volume access control installations in all environmental conditions. The 625X detector 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.

Specifications

Characteristic	Description
Inductance	18 to 1800 μ H (Tuned automatically)
Frequency Range	10 to 97 kHz
Temperature Range	-40°F to +176°F (-40°C to +80°C)
Outputs	Presence and Relay2 are changeover relay contacts rated at 250VAC, 5A, 150W/600VA max. Optional: Optically isolated contact, 50VDC 50mA
Lightning & Transients Protection	Zener diode protection from over voltage induced on loop and feeder leads. Flash over protection from loop to earth. Protection exceeds NEMA specification.

Features

- Small size 3"H x 1.5"W x 3.5"L (76 x 38 x 89 mm)
- Failsafe or failsecure outputs
- Increased sensitivity
- Six selectable sensitivities
- Easy to use controls
- Second relay is output mode selectable
- Pulse on entry
- Pulse on exit
- Second presence output
- Loop fault output
- 12 or 24VDC, 24, 110, or 220 VAC input
- Automatic sensitivity boost
- Current and historical loop fault indicators
- Compatible with existing equipment
- Automatic tuning
- Consistent presence time



Specifications

Property	Description
Supply Power	24 VAC or 120VAC available VA rating: 1.2VA
Relay 2 Output	Relay2 Output Control Switch on back panel 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	Six sensitivity settings are available using the 3-position front panel slide switch and switch 1 (SW1) on the back panel. MAX = 0.04% MAX = 0.02% MED = 0.16% MED = 0.08% MIN = 0.64% MIN = 0.32%
Frequency Setting	One of three operating frequency ranges can be selected with the front panel slide switch to eliminate cross talk.
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 Indicators	If the 625X sees a loop fault (open loop, shorted loop or greater than a 25% inductance change), the Presence LED flashes at a 16Hz rate. If the fault condition corrects itself, the Presence LED and detector resume normal operation. This historic fault can be displayed by depressing the Reset button. The Presence LED flashes at 16Hz rate to indicate a fault has occurred. When the Reset button is released, the detector resumes normal operation within 3 seconds. the Presence LED and detector resume normal operation. This historic fault can be displayed by depressing the Reset button. The Presence LED flashes at 16Hz rate to indicate a fault has occurred. When the Reset button is released, the detector resumes normal operation within 3 seconds.
Presence Time	60 minute standard Options: 8, 16 minutes, or permanent
Dimensions	3"H × 1.5"W × 3.5"L (w/o connector)
Detector Failure Condition	Two factory set options are available: Fail-safe (Standard) when supply or loop fails. Presence output falls into detect state. Relay2 output falls in the quiescent state. Fail-secure when supply or loop fails. Presence output falls in the quiescent state. Relay2 output falls in the quiescent state.

Connections

Pin	Function	Wire Color
1	AC Live (DC Positive)	Black
2	AC Neutral (DC 0V)	White
3	Relay2 N.O.	Orange
4	Chassis Ground	Green
5	Presence Relay Common	Yellow
6	Presence Relay N.O.	Blue
7	Loop	Gray
8	Loop	Brown
9	Relay2 Common	Red
10	Presence Relay N.C.	White/Black
11	Relay2 N.C.	White/Red

Contacts are shown in the "NO VEHICLE PRESENT" condition with power applied and loop connected to the detector.

Ordering Information

Standard order as 625X.

Input Supply	12V _{DC} , 24V _{DC} , 24V _{AC} , 110 V _{AC} , or 240 V _{AC}
Failure Mode	Failsafe or Failsecure
Presence Time	8, 16, 20 (standard) minutes or permanent

Operating Instructions

1. Verify the harness is wired per the connection chart and the input voltage is correct.
2. Set the Relay2 Output Control (switches 3 and 2 on the back panel) to the desired function.
3. Set switch 1 on the back panel to the OFF position and SENS switch to MIN setting.
4. Plug in detector. It will automatically tune.
5. Observe vehicle detections on the PRESENCE LED. If vehicles are not detected, increase sensitivity until detection occurs.
6. If cross-talk with an adjacent loop occurs, use the FREQ switch to change the operation frequency.

