



# MATRIX FAMILY

UL LISTED LOOP DETECTORS



## PRODUCT



[Go to the product page](#)

## CERTIFICATIONS

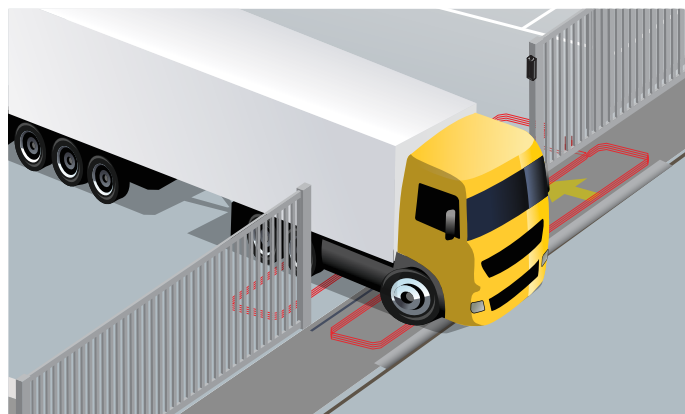


## DESCRIPTION

BEA's **MATRIX FAMILY** of induction loop detectors is designed for vehicle detection application in industrial environments.

These UL 508 listed loop detectors offer a wide range of features including automatic boost sensitivity (ABS), pulse on entry and pulse on exit. The **MATRIX 3** provides learn on power up, as well as an independent dual loop detection setting.

The **MATRIX FAMILY** includes single and dual loop detectors with operating voltages of 110 – 120 VAC or 12 – 24 VAC / VDC, depending on model.



### Two Loop Models Available

Available in single or dual loop models

### Dual Outputs

Two relay outputs

### Vehicle Detection, Direction And Counting

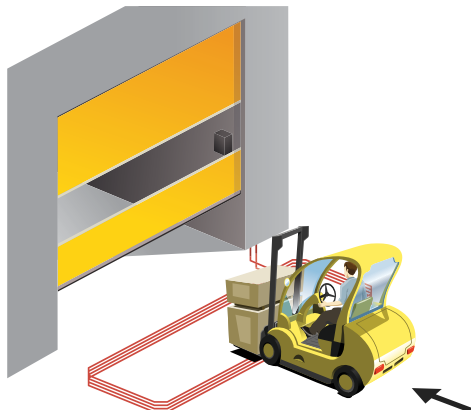
Ideal for vehicle directionality and sequencing applications

### Easy To Adjust

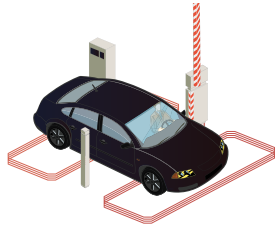
Settings are adjusted via two ease-to-use potentiometers

### Feature Rich

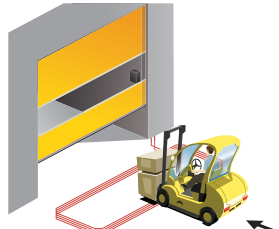
Pulse on entry and pulse on exit presence detection



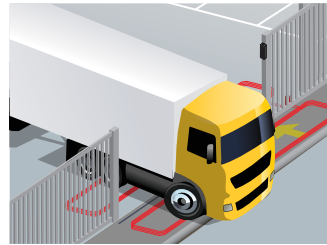
## APPLICATIONS



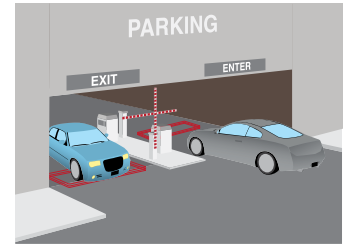
Parking Gates



Industrial Door Vehicle Detection



Industrial Gates &amp; Barriers



Entry &amp; Exit

## TECHNICAL SPECIFICATIONS

<b>Tuning</b>	Automatic
<b>Connector</b>	11-pin male (86CP11)
<b>Presence Time</b>	1 min – infinity
<b>Pulse Time Output</b>	100 ms or 500 ms
<b>LED Indicators</b>	
Green	Power
Red	Loop Status 1 / Loop Status 2
<b>Frequency Range</b>	20 kHz – 130 kHz
<b>Frequency Steps</b>	
Single Loop	4
Double Loop	2 (for each loop)
<b>Sensitivity (<math>\Delta L/L</math>)</b>	0.005 – 0.5%
<b>Reaction Time</b>	
Single Loop	25 ms
Double Loop	50 ms (each channel)
<b>Setup Time After Configuration</b>	2 s max by channel
<b>Power Supply (depending on model)</b>	12 – 24 AC / DC $\pm 10\%$ 115 VAC $\pm 10\%$
<b>Power Frequency</b>	48 – 62 Hz
<b>Power Consumption</b>	< 2.5 W
<b>Temperature Range</b>	-22 – 158 °F (-30 – 70 °C)
<b>Protections</b>	Loop Insulation Transformer Zener Diodes Gas Discharge Clamping
<b>Inductance Range</b>	20 – 1000 $\mu$ H
<b>Connection</b>	86CP11 (Standard 11-pin Round)
<b>Relay Outputs</b>	2 (free potential change-over contact)
Max. Contact Voltage	230 VAC
Max. Contact Current	5 A (resistive)
<b>Setup Time at Power On</b>	
MATRIXD/S	8 s max by channel
MATRIXIIS	8 s max by channel
MATRIX-3S	1.6 s max by channel
MATRIX-3D	2.2 s max by channel
<b>Norm Conformity</b>	R&TTE: 1999 / 5 / EC EMC: 89 / 336 / EEC EMC: 89 / 336 / EE EMC: 2004 / 108 / EC FCC: 47 CFR 15 IC: RSS-210 ISSUE 5 UL Listed equipment for UL 508
<b>Degree of Protection</b>	IP40
<b>Weight</b>	7 oz
<b>Dimensions</b>	1 1/2" (W) $\times$ 3" (H) $\times$ 3" (D)

## PRODUCT SERIES



**10MATRIXD110**  
110 – 120 VAC,  
Dual loop detector



**10MATRIXD1224**  
12 – 24 VAC / VDC,  
Dual loop detection



**10MATRIXIIS110**  
110 – 120 VAC,  
Single loop detector



**10MATRIXII1224**  
12 – 24 VAC / VDC,  
Single loop detector



**10MATRIX-3-2**  
12 – 24 VAC / VDC,  
Single loop detector



**10MATRIX-3-D**  
12 – 24 VAC / VDC,  
Dual loop detector



**70.0262**  
11-pin Socket based  
din rail



**10PS12-24D**  
UL / ULC Listed power supply,  
backup circuit  
(battery not included)



**10MATRIXHARN**  
11-pin harness

**DISCLAIMER** Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will BEA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information from this document or the products to which the information refers. BEA has the right without liability to change descriptions and specifications at any time.

WWW.BEASENSORS.COM



BEA AMERICAS / RIDC Park West / 100 Enterprise Drive / Pittsburgh, PA  
T 1-800-523-2462 / F 1-888-523-2462 / E info-us@BEAsensors.com

A Halma company