



# MATRIX FAMILY

UL LISTED LOOP DETECTORS



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## CERTIFICATIONS

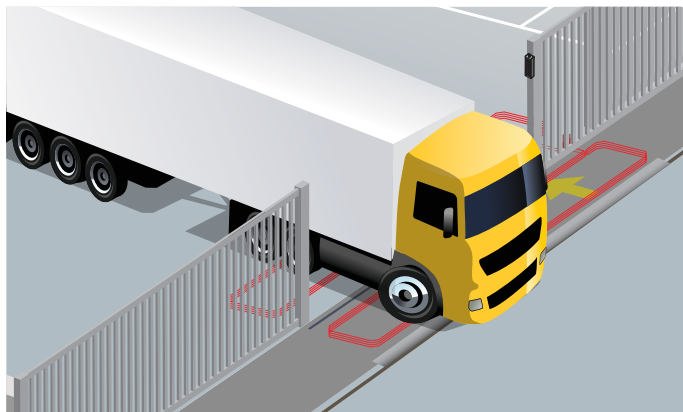


## DESCRIPTION

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

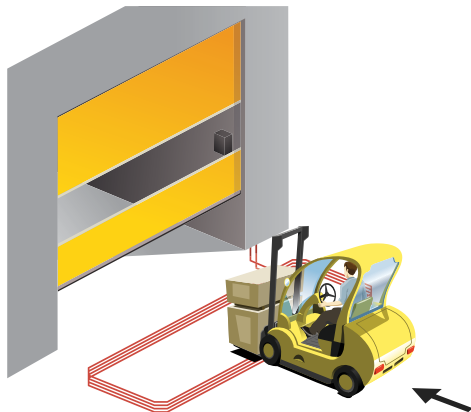
Ideal for vehicle directionality and sequencing applications

### Easy To Adjust

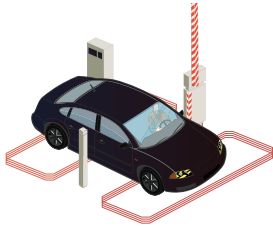
Settings are adjusted via two potentiometers

### Feature Rich

Pulse on entry and pulse on exit presence detection



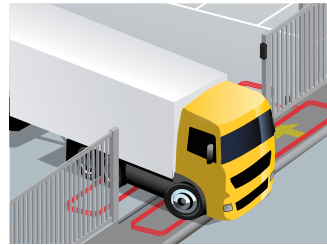
## APPLICATIONS



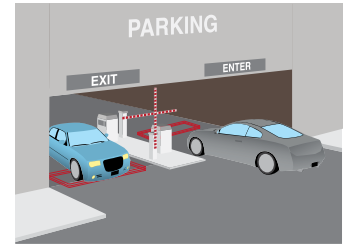
Parking Gates



Industrial Door Vehicle Detection



Industrial Gates & Barriers



Entry & 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 / EE 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 detector



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



**10MATRIXIIS1224**  
12 – 24 VAC / VDC,  
Single loop detector



**10MATRIX-3-S**  
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



**10PSMDR2024**  
Power supply,  
100 – 240 VAC, 24 VDC



**10PSST242**  
Plug-in power supply,  
24 V 2 AMP



**10MATRIXHARN**  
11-pin harness

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