

LRS

SINGLE CUT MAGNETORESISTIVE VEHICLE DETECTOR

The Loop Replacement System is a **single-cut** magnetoresistive vehicle detector **with presence**.

Three sensing elements provide magnetic field measurement in the X, Y and Z axes, improving detection sensitivity. The LRS's exciting new technology provides a high-sensitivity, compact, and cost-effective solution for reliable vehicle detection.

The small size of the LRS allows for easy installation in pavement (below grade) with a single saw cut. It provides cost savings on labor and materials when compared to the multiple cuts and corner reliefs required for the installation of inductive loops.

The rugged sensor is also **suitable for above grade installations**, making it ideal for use in confined areas or hidden in non-ferrous architectural components for security purposes.

- Three-dimensional presence detection (select X, Y and/or Z axis independently)
- Control module for programming and relay contact output
- Stand-alone sensor stores background and settings in a non-volatile memory
- Single cut, low-cost installation
- ULTRAMETER™ sensitivity display for easy set-up
- Fast response for high-speed detection
- Logic Interface available for extended range, directional logic and more
- DETECT-ON-STOP™ (DOS®) feature will allow detection only when a vehicle has come to a complete stop near the sensor
- Ignores cross traffic in tight spaces

LRS



scan here for more information



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Applications

- · Automatic gates and doors
- · Drive thru windows
- Car washes
- · Parking and traffic monitoring
- · Loading docks

Sensitive Area vs. Sensitivity Adjustment

Area (ft.)	Height at the center (ft.)	Sensitivity (adjustment setting)	
1x1	1	2	
2x2	2	3	
3x3	3	4	
4x4	4	6	
5x5	5	7	









LRS-C1

LRS-DB-XX

LRS-FP-XX

LRS-L

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Technical Data	Control Unit	Control Unit & Sensor	Sensor	
Sensing Technology		3-axis magnetoresistive		
ULTRAMETER™ Display		10 levels of sensitivity: 0-9		
Axis Sensitivity		512 counts/gauss (typical)		
Environmental Tracking		Automatic compensation		
Local Magnetic Field Nulling		Averages local field signature in any sensor orientation		
Detection Range		5 ft. (1.5m)		
Power/Fault Indicator	ault Indicator Green LED			
Detect Indicator	Red LED			
Pulse/Presence		Allows the relay/NPN output to send either a pulse output or have constant presence		
Detect-On-Stop™		Requires vehicle to stop for a minimum of 1 second (1-2s typical)		
Outputs	SPDT relay/NPN (open collector)		NPN (open collector)	
Output Ratings	Relay: 1A @ 24VDC120VAC NPN: 50 mA (max)		50 mA	
Connection	10 position screw terminal		5 conductor direct burial	
Operating Environment		-40° C82° C (-40° F180° F) 095% relative humidity		
Housing	ABS		DB: PVC FP: Polyamide	
Environmental Rating	IP30		IP69K	
Power Supply	12-30 VDC and 24 VAC		12-30 VDC	
Current Draw	40 mA max		10 mA max	
Supply Protection Circuitry		Reverse polarity and fuse protected		
Dimensions	76mm (3.0") x 22mm(0.9") x 70mm(2.75")		DB:102mm (4.0") x 27mm (1.0") FP: 108mm (4.3") x 22mm (0.9") x 9mm (0.3")	
Weight	68g (0.15 lbs.)		DB: 43g (0.09 lbs.) FP: 27g (0.06 lbs.)	

Ordering Information

- LRS-C1 Control Unit
- LRS-DB-50 Direct Burial Sensor, Probe, 50'
- LRS-DB-100 Direct Burial Sensor, Probe, 100'
- LRS-FP-50 Direct Burial Sensor, Flat Pack, 50'
- LRS-FP-100 Direct Burial Sensor, Flat Pack, 100'
- LRS-L Logic Interface (optional accessory), includes black 11 pin socket base DIN rail mount

WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of sale to our customer. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship. Rev 1.0 08/04/2020

