AutoSense 825

AutoSense™

The **AS 825** is designed to be mounted overhead in order to provide tolling and traffic management agencies with **vehicle detection**, **separation**, **speed**, and **classification** information over several lanes of traffic. In addition, the **AS 825** can be configured to **trigger enforcement cameras**.

The **AS 825** operates by emitting two laser fields beneath the sensor to scan both the roadway and the vehicles passing through the **eye-safe laser**. The **AS 825 scan rate** is **360 scans per second**. The **AS 825** is normally used for **open road toll** applications and is sensitive enough to detect tow bars and motorcycles. Classification is determined by the vehicle's dimensional characteristics as well as detection of tow bars.

Multi Lane – Overhead Vehicle Detection, Separation, Classification and Camera triggering

The **AS 825** provides comprehensive vehicle classification information, which ensures appropriate application of toll rates. The device is designed to identify background noise due to poor weather conditions and automatically change from its **normal operating mode** to a **bad weather mode** when conditions deteriorate.

Accessories

AS 825

Mounting Kit[1]
19471122-9

Power Cable[2,3]
9291011-9-XYZ
for AS825-UDK-H

Power Cable[2,4]
9291111-9-XYZ
for AS825-EDK-H

Comms. Cable[2,5]
9291009-9 **(RS-422)**
9291020-29 **(Ethernet)**

Surge Suppressor[6]
81000143-19

Beam Finder
9301000-9

Notes:
1. The Mounting Kit consists of a Mounting Plate (19476122-1) and Mounting Hardware (19471023-9)
2. Cables are offered in lengths of 50 ft, 100 ft, 125 ft, 150 ft and 200 ft. Part no. for e.g. 150 ft Power Cable becomes: 9291011-9-150
3. This cable is equipped with the PW06P12-3S connector
4. This cable is equipped with the PW06P12-3SY connector
5. This cable is equipped with the PT06P14-19S connector **(RS-422)** / PT06P12-10S connector **(Ethernet)**
6. Replacement Sponge for the Surge Suppressor is part no. 22NX

AutoSense – Beam shape matters!

AutoSense technology

The highly dynamic toll operation environment continues to demand **very precise data collection** systems which are flexible, upgradable, and able to work in tandem with legacy elements as well. With millions in revenue on the line every day, **AutoSense** delivers the level of precision and functionality you require.

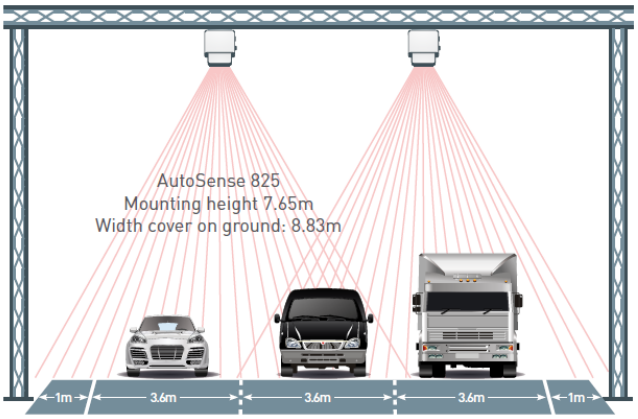
AutoSense products are developed to provide a highly sophisticated, noninvasive solution to track and analyze traffic across a wide range of applications, including toll collection, traffic flow analysis, bridge/tunnel clearance verification, as well as traffic control and surveillance.

AutoSense products are also commonly used as highly accurate trigger sensors for enforcement cameras.

Concessionaires that employ **AutoSense** have realized substantially lower life cycle costs when compared to other technologies, due to ease of maintenance, extreme reliability and all-weather performance with advanced **Multi-Pulse™ Logic** and automatic switching between normal operation and bad weather mode operation. AutoSense products include transparent window heating technology to ensure reliable operation in environments down to – **40 degrees**.

AutoSense products provide extremely accurate information via patented, eye-safe laser scanning technology that continuously self-tests to feature **vehicle detection accuracy exceeding 99%**.

AutoSense technology features unique **continuous line pixel technology** that allows accurate measurement of vehicle volumetric dimensions, vehicle speed and direction of travel.



Specifications

PERFORMANCE	AS825-UDK-H (120V)	AS825-EDK-H (240V)
Use, MultiLane	Multi Lane - Open Road to achieve vehicle detection, separation, classification and camera trigger	
Typical mounting location	Overhead: 25 Ft – 30 Ft	Overhead: 7.6 - 9.2m
Field of View	60 degrees	
Angular resolution	0.667 degree	
Scan rate	360 scans per second per beam	
Vehicle Classification Categories	11 standard, plus 20 user-definable categories	
Vehicle Detection Accuracy	>99% (ORT)	
Vehicle Classification Accuracy	>95% (into 6 vehicle classes)	
Vehicle Speed Accuracy	± 10% (Under assumption of constant speed during passing of entire vehicle under scanner)	
Vehicle Length Accuracy	± 10% (Under assumption of constant speed during passing of entire vehicle under scanner)	
Vehicle Height Accuracy	± 0.5 inches Max	± 12.7 mm Max
PHYSICAL		
Power Input	90-140 V, 50-60 Hz, 1.5 A	200-264 V, 50-60 Hz, 1.0 A
Power Consumption	40 W nominal, 160W maximum	
Dimensions (L x W x H)	16 x 13.5 x 5 inches	406 x 343 x 127 mm
Weight	29 pounds	13.1 kg
DATA INTERFACE		
Ethernet	TCP/IP 10/100 Mbps	
RS-422	19.2, 38.4, 57.6 Kbaud (User selectable), 8 data bits, 1 start, 1 stop, no parity	
ENVIRONMENTAL		
Temperature (with sun loading)	-40 to +160 degrees F	-40 to +70 degrees C
Thermal Shock	60 degrees F/minute	15.5 ˚C/minute
Humidity	0 to 100% condensing	
Rain	0.8 inches/hour operating, 4 inches/hour maximum	20 mm/hour operating, 100 mm/hour maximum
Snow Loading	20 lb./ft2	98 kg/m^2
Wind Loading	43 knots steady, 73 knots gusts	22 m/s steady, 37 m/s gusts
Reliability (MTBF)	>35,000 hours	
Maintainability	15 minutes (Mean Time to Replace)	
ACCESSORIES		
Mounting Plate	19476122-1	
Mounting Hardware	19471023-9	
Power Cable	9291011-9-XYZ (XYZ = 50ft, 100ft, 150ft, 200ft or 250ft)	9291111-9-XYZ (XYZ = 15m, 30m, 45m, 60m or 75m)
Power Cable Connector	PW06P12-3S	PW06P12-3SY
Communications Cable (RS-422)	9291009-9-XYZ (XYZ = 50ft, 100ft, 150ft, 200ft or 250ft)	9291009-9-XYZ (XYZ = 15m, 30m, 45m, 60m or 75m)
Communications Cable (Ethernet)	9291020-29-XYZ (XYZ = 50ft, 100ft, 150ft, 200ft or 250ft)	9291020-29-XYZ (XYZ = 15m, 30m, 45m, 60m or 75m)
Communications Cable Connector (RS422)	PT06P14-19S	
Communications Cable Connector (Ethernet)	PW06P12-10S	
Beam Finder	9301000-9	

Standards and Certifications

• IEC 60825-1 2007 (Class 1 Laser product) • UL 60950-1:2007 ED:2 • IEC 60950-1:2005 ED:2 • CAN/CSA C22.2 • 21 CFR 1040.10 & 1040.11

This product is manufactured in a facility certified to • AS9100B / ISO 9001:2008 • US Patent 5,546,188

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