

AG4 Safety Laser Scanner

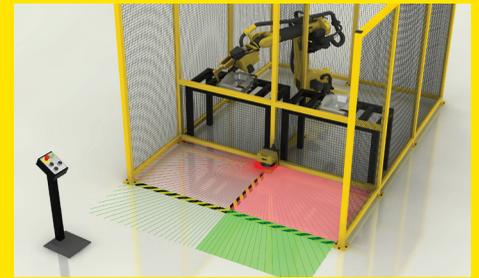


A single device for stationary and mobile safeguarding applications

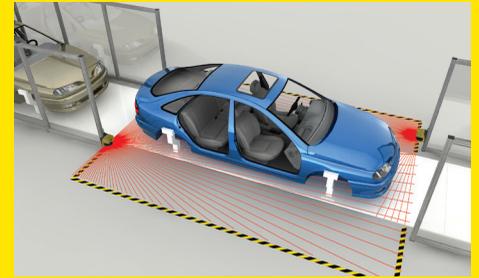
The Banner AG4 is a two-dimensional optical measuring safety laser scanner that emits pulses of infrared light to locate and measure the position of objects in its field of view. A single unit that works on the principle of diffuse reflection (i.e., reflected light), the AG4 is an excellent choice for irregularly shaped safeguarding in applications where a standard two- or three-piece safety light screen will not work.

- ▶ Two-dimensional laser scanner effectively protects personnel, as well as stationary and mobile systems within a user designated area.
- ▶ Persons or objects entering the protection field will be detected and a protective (safety) stop signal will be generated.
- ▶ The highly flexible protective and warning fields can be set to match the shape of the work area.
- ▶ Compact design, simple installation and easy-to-use software provide efficient integration into work zones.
- ▶ Two solid-state OSSD safety outputs (250 mA) and two solid-state auxiliary outputs (100 mA).
- ▶ Low power consumption (420 mA @ 24V dc) and a very forgiving supply range (24V dc +20%/-30%) require fewer or smaller power supplies, reducing power consumption.
- ▶ Five LED diagnostic display presents system status and diagnostics of devices without connecting to a PC.
- ▶ Rugged, die-cast aluminum housing withstands the rigor of factory floors.
- ▶ System meets all requirements for Type 3 per IEC 61496-1/-2 Category 3 PLd per EN ISO 13849-1, and Safety Integrity Level (SIL) 2 per IEC 61508.

Dependable and Flexible Safeguarding



Two-Zone Monitoring



Access Monitoring



Collision Avoidance

Fully Configurable Safeguarding

- ▶ Eight individually defined protective and warning field pairs using a PC
- ▶ Protection field resolution is from 30 to 150 mm with ranges up to 4 m
- ▶ Warning field up to 15 m with a resolution of 150 mm
- ▶ 0.36° lateral resolution and detects objects in a zone up to 190°
- ▶ Configurable response time from 80 to 640 milliseconds
- ▶ RS-232 and RS-422 PC interface connection
- ▶ 24V dc supply voltage

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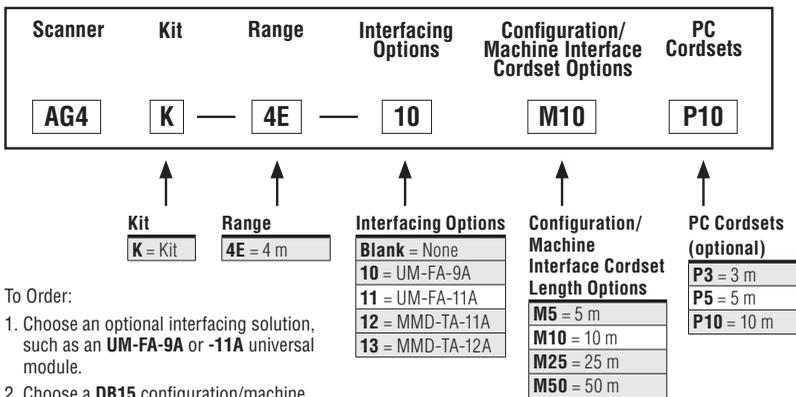
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AG4-4E Safety Laser Scanner, 24V dc

| Model | Range | | Safety Output | Aux. Output | Scanning Angle | Response Time | Data Sheet |
|--------|---------------------------|--------------------------|---------------|-------------|----------------|----------------------------|---|
| | Protective Fields | Warning Fields | | | | | |
| AG4-4E | 30 mm Resolution = 1.6 m | 150 mm Resolution = 15 m | 2 PNP OSSD | 2 PNP | 190° | 80 ms adjustable to 640 ms | AG4 Soft Manual 144923 Product Manual 144924 |
| | 40 mm Resolution = 2.20 m | | | | | | |
| | 50 mm Resolution = 2.80 m | | | | | | |
| | 70 mm Resolution = 4.0 m | | | | | | |
| | 150 mm Resolution = 4.0 m | | | | | | |

Kit Model Key



To Order:

1. Choose an optional interfacing solution, such as an **UM-FA-9A** or **-11A** universal module.
2. Choose a **DB15** configuration/machine interface cordset, such as **AG4-CPD15...**
3. Choose an optional PC communication cordset, such as **AG4-PCD9...**

See AG4-4E manuals (p/n 144923 & 144924) or www.bannerengineering.com for complete information and a current listing of accessories.

Dimensions



Interfacing Products

| | Models | Description | Data Sheet |
|-----------------------------------|---|--|------------|
| Interface Modules and Controllers |  UM-FA-9A (3 NO) UM-FA-11A (2 NO/1 NC) | <ul style="list-style-type: none"> • Universal modules monitor both contact-based and PNP solid-state input devices. • Convenient plug-in terminal blocks on a 22.5 mm DIN-rail mountable housing. | 141249 |
| |  SC22-3-S... SC22-3E-S... | <ul style="list-style-type: none"> • One controller provides configurable monitoring of multiple safety devices. • 22 input terminals can monitor both contact-based and PNP solid-state input devices. • 3 pairs of independent solid-state safety outputs can be used with selectable one- or two-channel external device monitoring. • Ten configurable non-safety status outputs track inputs, outputs, lockout, I/O status and other functions • SC22-3 modules use 24V dc. • 10/100 Base TX Ethernet communication option using EtherNet/IP and Modbus TCP protocols (SC22-3E models). | 133487 |
| Muting Modules |  MMD-TA-12B MMD-TA-11B | <ul style="list-style-type: none"> • Muting Module temporarily inhibits a safety light screen so materials can safely pass through the screen without stopping the machinery. • Module uses redundant microcontroller-based logic. | 116390 |

NC = Normally closed, NO = Normally open

Accessories

Cordsets



DB15 Configuration/Machine Interface

| Length | Model Number |
|--------|--------------|
| 5 m | AG4-CPD15-5 |
| 10 m | AG4-CPD15-10 |
| 25 m | AG4-CPD15-25 |
| 50 m | AG4-CPD15-50 |



DB9 PC Communication

| Length | Model Number |
|--------|--------------|
| 3 m | AG4-PCD9-3 |
| 5 m | AG4-PCD9-5 |
| 10 m | AG4-PCD9-10 |

Bracket



Swivel

AG4-MBK1

Banner Engineering Corp.

www.bannerengineering.com

9714 Tenth Avenue North • Minneapolis, Minnesota 55441 • (763) 544-3164 • Fax: (763) 544-3213
Toll-free: 888-373-6767 • www.bannerengineering.com • Email: sensors@bannerengineering.com

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