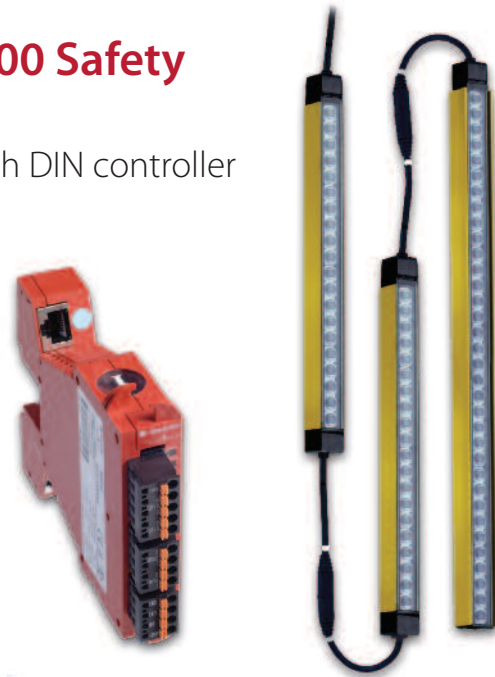


# GuardShield™ Cascadeable Micro 400 Safety Light Curtains

Small profile, Type 4, SIL 3 safety light curtains with DIN controller

## Features:

- The 20 inch integrated cables located on the top and bottom of each transmitter and receiver (with M12 connectors) allow interconnection of multiple segment pairs
- Merge 14mm and 30mm resolutions in a cascaded system
- Interconnection patch cords available in 1M and 3M lengths
- Slim profile housing (15 mm X 20mm)
- 14mm cascadeable heights: 150mm to 1200mm protective heights, in 150mm increments
- 30mm cascadeable heights: 150mm, 300mm, 600mm, 900mm, 1200mm
- 3 box system with dedicated safety controller
- DIN controller is also a multi-function safety module, allowing additional safety devices to be connected
- Configuration of controller functionality through wiring or software
- Expansion safety relay modules (MSR45E) easily connect to controller
- A global safeguarding solution that meets IEC61496 and UL61496 and is CE marked by TÜV



The Allen-Bradley® Guardmaster® GuardShield Cascadeable Micro 400 safety light curtains are an economical, Type 4, three box safety light curtain designed for small assembly machines in ambient operating environments, or where mounting space is limited. These GuardShield Cascadeable Micro 400 safety light curtains are presence sensing devices designed for use on hazardous machinery providing point of operation guarding. Offered in 14mm and 30mm resolutions, this SIL 3 rated safety solution offers expanded functionality with the MSR42 controller. The MSR42 controller is also a multifunction safety module with hard-wired or software configurable operating modes. The MSR42 controller has two PNP OSSDs which can be connected directly to the final switching device. If safety relay outputs are required, up to three safety relay expansion modules (MSR45E) may be easily connected to the controller.

### GuardShield reliability and functionality, with added configuration flexibility

A GuardShield Cascadeable Micro 400 light curtain system connected to an MSR42 controller, improves flexibility for applications requiring multiple light curtains or other safety devices such as safety laser scanners, E-Stops or safety switches by simple configuration of the general purpose MSR42 inputs. These configurable MSR42 inputs result in a reduction of the overall system wiring and can simplify the safety circuit, resulting in a possible lower overall cost for the multiple safety device system. The GuardShield Micro 400 together with the MSR42 controller has a SIL 3 rating per IEC61508 - And since these light curtains meet IEC61496 and UL61496 and are CE marked by TÜV, they are also a global solution for a wide range of challenging machine guarding applications.

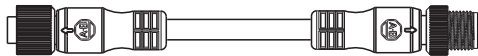
The GuardShield Cascadeable Micro 400 safety light curtains are ordered as pairs (transmitter and receiver) and are shipped under a single catalog number for ease of selection. It is necessary that the last segment pair in a cascaded system be a standard GuardShield Micro 400 safety light curtain. The MSR42, MSR45E, ribbon cable connectors and patch cords are ordered separately to complete the safety system.



## Ordering Information

Resolution	Protected Height mm (in.)	No. of Beams	Catalog Number		
			Pair	Transmitter	Receiver
14MM	600 (23.6)	60	445L-C4C0600FP	445L-G4C0600FP	445L-F4C0600FP
	900 (35.4)	90	445L-C4C0900FP	445L-G4C0900FP	445L-F4C0900FP
	1200 (47.2)	120	445L-C4C1200FP	445L-G4C1200FP	445L-F4C1200FP
30MM	150 (5.9)	6	445L-C4E0150FP	445L-G4E0150FP	445L-F4E0150FP
	300 (11.8)	12	445L-C4E0300FP	445L-G4E0300FP	445L-F4E0300FP
	600 (23.6)	24	445L-C4E0600FP	445L-G4E0600FP	445L-F4E0600FP
	900 (35.4)	36	445L-C4E0900FP	445L-G4E0900FP	445L-F4E0900FP
	1200 (47.2)	48	445L-C4E1200FP	445L-G4E1200FP	445L-F4E1200FP

Note: The maximum length of a GuardShield Micro 400 system is limited to 10m. This total length includes the length from the last beam in the light curtain housing plus the length of the pigtail cable and the patch cord length. The maximum number of beams in a cascaded system can not exceed 255 beams.

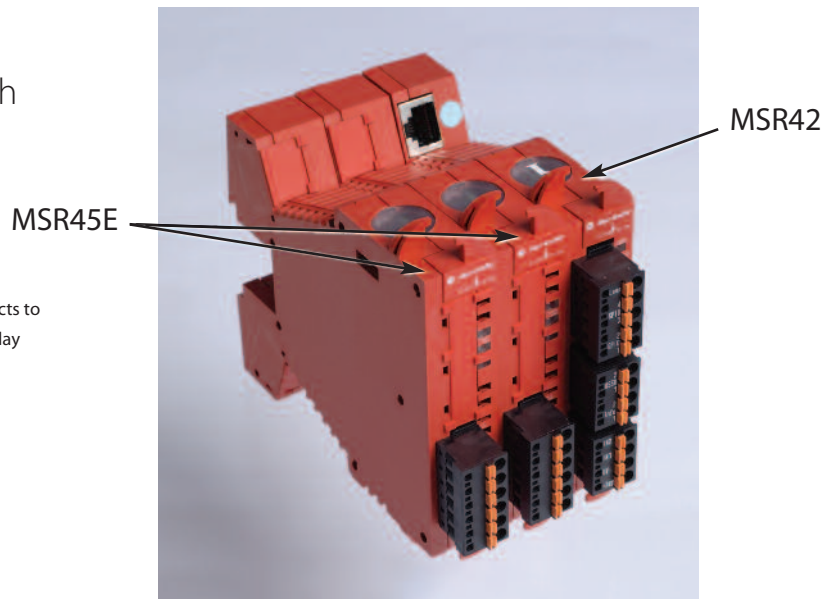


Example of Patchcord

Catalog Number	Description
445L-AC8PC1	1 Meter Patch cord
445L-AC8PC3	3 Meter Patch cord

MSR 42 Micro 400 Controller and Multi function safety module with MSR 45E safety relay expansion module

Note: The MSR 45E safety relay expansion module easily connects to the MSR42 Micro 400 controller and provides a pair of safety relay outputs per module. Up to three MSR45E modules can be interconnected to each MSR 42 controller.



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