



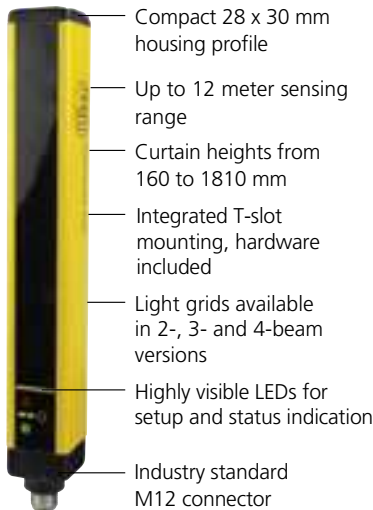
## Top product features!

- Light curtains designed for finger protection – 14 mm resolution
- Compact 28 x 30 mm housing profile for less intrusive mounting
- Up to 6 meter sensing range with no software required
- Light curtains offer protected heights of 160 mm to 1810 mm in intervals of 150 mm
- **You don't have to compromise the safety level of your machine because of cost... competitive list prices set a new benchmark for value!**

## Safety light curtains help to protect plant personnel



ifm's Type 4 safety light curtains provide an optical solution for protecting plant personnel in unsafe work areas. ifm Type 4 light curtains provide continuous protection, tighter effective aperture range, redundant circuitry and the highest maximum achievable safety level requirements.



### Why choose ifm for your safety products?

- ifm has taken the complexity out of selecting light curtains by offering only Type 4 light curtains.
- Not only does ifm provide the maximum achievable safety for a light curtain, ifm also offers the optimal resolution models for finger, hand and body protection applications.
- ifm's pricing enables Type 4 light curtains to be used in all applications.
- Fewer variations that cover a broad range of applications allows for standardizing on a smaller number of light curtain models.
- ifm has stock available for immediate delivery.

ifm safety light curtains provide a multiple beam array of infrared light in front of a hazardous area. If any of the beams are blocked by a **finger** in the sensing field, the light curtain sends a signal to the machine to place it in a safe state.



### Woodworking Power Saws

Operators are denied access to power saws any time the saws are in motion. Finger protection safety light curtains allow operators to work in close proximity to power saws without risk of injury.



### Machine tool Hydraulic presses

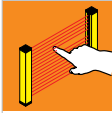
Presses require large amounts of force and pose a serious safety hazard. ifm safety light curtains will halt the press if an operator gets near the dangerous area.



### Assembly automation SMT (Surface Mount Technology) machine


Light curtains help protect an operator from the hazards associated with material positioning such as mechanical power presses.

Company	IO-Link	Position Sensors					Motion Control		Vision Sensors	
	IO-Link	Inductive	Capacitive	Cylinder / valve position	Photoelectrics / lasers / fiber optics	Distance / Application specific	Ultrasonic	Encoders / Speed monitors	2D / 3D inspection	
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## Product + accessory selector

### Type 4 light curtains for finger protection

Type	Resolution (mm)	Protected Area Height (mm)	Protected Area Width (m)	Part No.	List Price
	14	160	6	OY001S	\$903.00
	14	310	6	OY002S	\$1,128.00
	14	460	6	OY003S	\$1,352.00
	14	610	6	OY004S	\$1,579.00
	14	760	6	OY005S	\$1,807.00
	14	910	6	OY006S	\$2,034.00
	14	1060	6	OY007S	\$2,265.00
	14	1210	6	OY008S	\$2,499.00
	14	1360	6	OY009S	\$2,723.00
	14	1510	6	OY010S	\$3,118.00
	14	1810	6	OY011S	\$3,738.00

### Optional Accessories



Type	Description	Part No.	List Price
	Rotatable brackets ± 7°, set of 4 (for light curtains ≤ 1060 mm)	EY3004	\$40.00
	Rotatable brackets ± 7°, set of 6 (for light curtains ≥ 1210 mm)	EY3005	\$55.00
	Clamping bracket ± 6°, set of 4	EY3013	\$45.00
	Rotatable bracket ± 90°, set of 4	EY3011	\$83.00
	Vibration damper for mounting, set of 4 pieces.	EY3001	\$41.00
	Vibration damper for mounting, set of 6 pieces.	EY3002	\$64.00
	Laser alignment tool	EY3099	\$261.00

Additional accessories see page 151.



### Technical Specs

Operating voltage: 19.2...28.8 VDC  
 Current rating: 2 x 400 mA  
 Current consumption: Transmitter 42 mA, Receiver 83 mA  
 Safety outputs (OSSDs): 2 x PNP  
 Operating temperature: 14...131 °F (-10...55 °C)  
 Protection: IP67  
 Dimensions (W x D): 28 x 30 mm  
 Connection: M12, Transmitter: 5-pin, Receiver: 8-pin  
 Max. cable length: 100 m  
 Safety category: Type 4 (IEC 61496-1) SIL 3 (IEC 61508) SILcl 3 (IEC 62061) PL d / PL e (EN ISO 13849-1)



### M12 Micro DC cordsets for transmitters


Type	Description	Part No.	List Price
	5 m, 5-pin, PUR	EVC071	\$19.00
	10 m, 5-pin, PUR	EVC072	\$25.00
	5 m, 5-pin, PUR	EVC074	\$19.00
	10 m, 5-pin, PUR	EVC075	\$25.00

### M12 Micro DC cordsets for receivers

	5 m, 8-pin, PUR	E12166	\$54.00
	10 m, 8-pin, PUR	E12167	\$69.00
	5 m, 8-pin, PUR	E12168	\$54.00
	10 m, 8-pin, PUR	E12169	\$69.00

### Safety relays


Type	Safety Outputs	Non-safe Outputs	Part No.	List Price
	2 x relay (N.O.)	1 x PNP	G1501S	\$181.00
	2 x PNP	1 x PNP	G1503S	\$165.00
	3 x relay (N.O.) 2 x relay (N.O.) with time delay	1 x relay (N.O.) 1 x relay (N.C.) 1 x PNP with time delay	G1502S	\$292.00

 The following pages include additional safety light curtain options.


### Simple and comprehensive website



Data sheets, application examples, software downloads, virtual product demos... just one click away.

 Place orders, tech support  
800-441-8246

 Visit our product catalog  
www.ifm.com/us

 Shop for products online  
Easy ordering via eShop

#### Safety Technology

#### Process Sensors

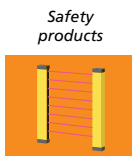
#### Industrial Networks

#### ID Systems

#### Machine Condition

#### Power Supplies

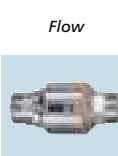
#### Wiring Technology



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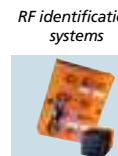
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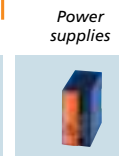
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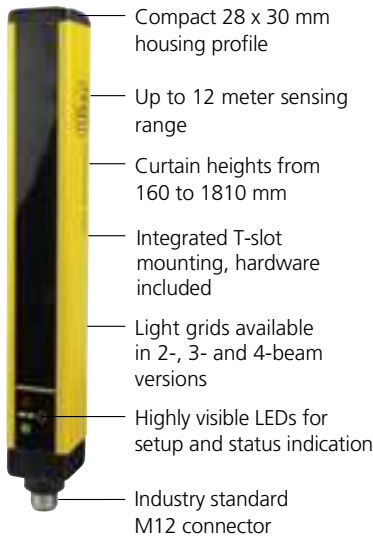
## Top product features!

- Light curtains designed for hand protection – 30 mm resolution
- Highest level of safety protection without increasing cost – Type 4 curtains at a Type 2 price
- Up to 12 meter sensing range with no software required
- Light curtains offer protected heights of 160 mm to 1810 mm in intervals of 150 mm
- **You don't have to compromise the safety level of your machine because of cost... competitive list prices set a new benchmark for value!**

## Safety light curtains help to protect plant personnel



ifm's Type 4 safety light curtains provide an optical solution for protecting plant personnel in unsafe work areas. ifm Type 4 light curtains provide continuous protection, tighter effective aperture range, redundant circuitry and the highest maximum achievable safety level requirements.



### Why choose ifm for your safety products?

- ifm has taken the complexity out of selecting light curtains by offering only Type 4 light curtains.
- Not only does ifm provide the maximum achievable safety for a light curtain, ifm also offers the optimal resolution models for finger, hand and body protection applications.
- ifm's pricing enables Type 4 light curtains to be used in all applications.
- Fewer variations that cover a broad range of applications allows for standardizing on a smaller number of light curtain models.
- ifm has stock available for immediate delivery.

ifm safety light curtains provide a multiple beam array of infrared light in front of a hazardous area. If any of the beams are blocked by a **hand** in the sensing field, the light curtain sends a signal to the machine to place it in a safe state.



### Vertical automated storage systems

If the operator reaches into the carousel prematurely or accidentally, ifm light curtains will stop the carousel from rotating to prevent injury.



### Carton erecting

Carton machines can jam during the erecting process. Once the operator breaks the protective area of the safety light curtain, the machine stops to allow the operator to clear the jam.



### Semi-automated assembly station

Line workers reach into a press to remove the assembly. The press is stopped when an operator reaches inside the machine and breaks the protective field of the light curtain. When the operator has removed the assembly, the machine cycle is automatically restarted, and the light curtains resume operation.

### IO-Link

Company

IO-Link

### Position Sensors

Inductive

Capacitive

Cylinder / valve position

Photoelectrics / lasers / fiber optics

Distance / Application specific

Ultrasonic

### Motion Control

Encoders / Speed monitors

### Vision Sensors

2D / 3D inspection



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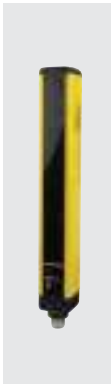


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# Product + accessory selector

## Type 4 light curtains for hand protection

Type	Resolution (mm)	Protected Area Height (mm)	Protected Area Width (m)	Part No.	List Price
	30	160	12	OY041S	\$746.00
	30	310	12	OY042S	\$898.00
	30	460	12	OY043S	\$1,027.00
	30	610	12	OY044S	\$1,176.00
	30	760	12	OY045S	\$1,318.00
	30	910	12	OY046S	\$1,460.00
	30	1060	12	OY047S	\$1,607.00
	30	1210	12	OY048S	\$1,783.00
	30	1360	12	OY049S	\$1,888.00
	30	1510	12	OY050S	\$2,155.00
	30	1810	12	OY454S	\$2,500.00

## Optional Accessories



Type	Description	Part No.	List Price
	Rotatable brackets ± 7°, set of 4 (for light curtains ≤ 1060 mm)	EY3004	\$40.00
	Rotatable brackets ± 7°, set of 6 (for light curtains ≥ 1210 mm)	EY3005	\$55.00
	Clamping bracket ± 6°, set of 4	EY3013	\$45.00
	Rotatable bracket ± 90°, set of 4	EY3011	\$83.00
	Vibration damper for mounting, set of 4 pieces.	EY3001	\$41.00
	Vibration damper for mounting, set of 6 pieces.	EY3002	\$64.00
	Laser alignment tool	EY3099	\$261.00

Additional accessories see page 151.



## Technical Specs

Operating voltage: 19.2...28.8 VDC  
 Current rating: 2 x 400 mA  
 Current consumption: Transmitter 42 mA, Receiver 83 mA  
 Safety outputs (OSSDs): 2 x PNP  
 Operating temperature: 14...131 °F (-10...55 °C)  
 Protection: IP67  
 Dimensions (W x D): 28 x 30 mm  
 Connection: M12, Transmitter: 5-pin, Receiver: 8-pin  
 Max. cable length: 100 m  
 Safety category: Type 4 (IEC 61496-1) SIL 3 (IEC 61508) SILcl 3 (IEC 62061) PL d / PL e (EN ISO 13849-1)



## M12 Micro DC cordset for transmitter

Type	Description	Part No.	List Price
	5 m, 5-pin, PUR	EVC071	\$19.00
	10 m, 5-pin, PUR	EVC072	\$25.00
	5 m, 5-pin, PUR	EVC074	\$19.00
	10 m, 5-pin, PUR	EVC075	\$25.00



## M12 Micro DC cordset for receiver


	5 m, 8-pin, PUR	E12166	\$54.00
	10 m, 8-pin, PUR	E12167	\$69.00
	5 m, 8-pin, PUR	E12168	\$54.00
	10 m, 8-pin, PUR	E12169	\$69.00

## Safety relays

Type	Safety Outputs	Non-safe Outputs	Part No.	List Price
	2 x relay (N.O.)	1 x PNP	G1501S	\$181.00
	2 x PNP	1 x PNP	G1503S	\$165.00
	3 x relay (N.O.) 2 x relay (N.O.) with time delay	1 x relay (N.O.) 1 x relay (N.C.) 1 x PNP with time delay	G1502S	\$292.00

## Floor stands for light curtains

Type	Description	Part No.	List Price
	For safety light curtains ≤ 760 mm. Requires base unit EY2005.	EY2001	\$299.00
	For safety light curtains ≤ 1060 mm. Requires base unit EY2005.	EY2002	\$330.00
	For safety light curtains ≤ 1360 mm. Requires base unit EY2005.	EY2003	\$394.00
	For safety light curtains ≤ 1510 mm. Requires base unit EY2005.	EY2004	\$693.00
	Required spring base unit for floor mounting	EY2005	\$204.00

 The following pages include additional safety light curtain options.

Safety Technology

Process Sensors

Industrial Networks

ID Systems

Machine Condition

Power Supplies

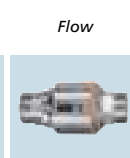
Wiring Technology



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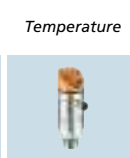
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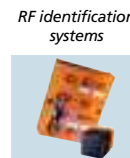
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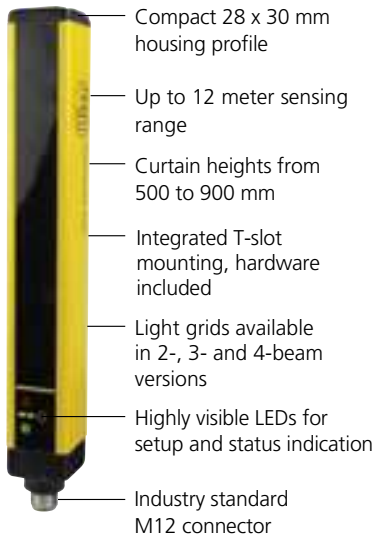
## Top product features!

- Light curtains designed for body protection – 300, 400 and 500 mm resolution
- Highest level of safety protection without increasing cost – Type 4 curtains at a Type 2 price
- Up to 12 meter sensing range with no software required
- Light curtains for body protection offer protected heights of 500 mm to 900 mm in intervals of 150 mm
- **You don't have to compromise the safety level of your machine because of cost... competitive list prices set a new benchmark for value!**

## Safety light curtains help to protect plant personnel



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- ifm has stock available for immediate delivery.

ifm safety light curtains for **body** protection prevent access to a machine by using light curtains and optional mirrors to define a hazardous area.



### Palletizer

A palletizer erects a pallet of kegs and places it on a conveyor. Muting sensors are tripped and the pallet is allowed to bypass the light curtain and leave the area. If an operator attempts to enter the palletizing area from the opposite direction, the light curtain will detect his presence and cut power to the machine.



### Perimeter guarding of palletizing area

Corner mirrors allow a single pair of safety light curtains to be used in perimeter guarding applications. Up to three corner mirrors may be used to "bend" the light into shapes that protect multiple sides of the dangerous area. ifm light curtains enable a safe and economical way to replace expensive hard guarding.

### IO-Link

### Position Sensors

### Motion Control

### Vision Sensors

Company

IO-Link

Inductive

Capacitive

Cylinder / valve position

Photoelectrics / lasers / fiber optics

Distance / Application specific

Ultrasonic

Encoders / Speed monitors

2D / 3D inspection



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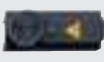



## Product + accessory selector

### Type 4 light curtains for body protection


Type	Resolution (mm)	No. of Beams	Protected Area Height (mm)	Protected Area Width (m)	Part No.	List Price
	500	2	500	12	OY114S	\$679.00
	400	3	800	12	OY115S	\$786.00
	300	4	900	12	OY116S	\$917.00

### Optional Accessories



Type	Description	Part No.	List Price
	Clamping bracket ± 6°, set of 4	EY3013	\$45.00
	Rotatable bracket ± 90°, set of 4	EY3011	\$83.00
	Vibration damper for mounting, set of 4 pieces.	EY3001	\$41.00
	Vibration damper for mounting, set of 6 pieces.	EY3002	\$64.00
	Laser alignment tool	EY3099	\$261.00

Type	Length (mm)	Resolution (mm)	Beams	Part No.	List Price
	715	610	2	EY1004	\$401.00
	1060	910	3	EY1006	\$498.00
	1230	1060	4	EY1007	\$549.00



### Floor stands with integrated corner mirrors

	For light curtains with 2 beams Requires base unit EY2005.	EY1011	\$492.00
	For safety light curtains with 3 and 4 beams Requires base unit EY2005.	EY1013	\$600.00



### Floor stands for light curtains

	For safety light curtains ≤ 760 mm. Requires base unit EY2005.	EY2001	\$299.00
	For safety light curtains ≤ 1060 mm. Requires base unit EY2005.	EY2002	\$330.00
	Required spring base unit for floor mounting	EY2005	\$204.00



### M12 Micro DC cordset for transmitter

Type	Description	Part No.	List Price
	5 m, 5-pin, PUR	EVC071	\$19.00
	10 m, 5-pin, PUR	EVC072	\$25.00
	5 m, 5-pin, PUR	EVC074	\$19.00
	10 m, 5-pin, PUR	EVC075	\$25.00

### M12 Micro DC cordset for receiver

	5 m, 8-pin, PUR	E12166	\$54.00
	10 m, 8-pin, PUR	E12167	\$69.00
	5 m, 8-pin, PUR	E12168	\$54.00
	10 m, 8-pin, PUR	E12169	\$69.00

### Safety relays

Type	Safety Outputs	Non-safe Outputs	Part No.	List Price
	2 x relay (N.O.)	1 x PNP	G1501S	\$181.00
	2 x PNP	1 x PNP	G1503S	\$165.00
	3 x relay (N.O.) 2 x relay (N.O.) with time delay	1 x relay (N.O.) 1 x relay (N.C.) 1 x PNP with time delay	G1502S	\$292.00
	For muting applications only 2 x relay (N.O.)	1 x PNP	G2001S	\$504.00

### Technical Specs

Operating voltage: 19.2...28.8 VDC  
 Current rating: 2 x 400 mA  
 Current consumption: Transmitter 42 mA, Receiver 83 mA  
 Safety outputs (OSSDs): 2 x PNP  
 Operating temperature: 14...131 °F (-10...55 °C)  
 Protection: IP67  
 Dimensions (W x D): 28 x 30 mm  
 Connection: M12, Transmitter: 5-pin, Receiver: 8-pin  
 Max. cable length: 100 m  
 Safety category: Type 4 (IEC 61496-1) SIL 3 (IEC 61508) SILcl 3 (IEC 62061) PL d / PL e (EN ISO 13849-1)

#### Safety Technology

#### Process Sensors

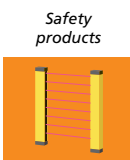
#### Industrial Networks

#### ID Systems

#### Machine Condition

#### Power Supplies

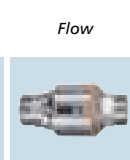
#### Wiring Technology



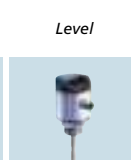
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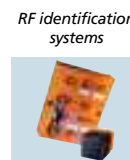
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