# LS2ER/90-135F



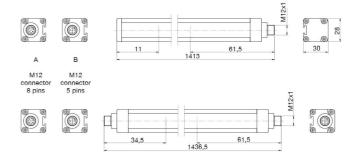


Indicative image

### LIGHT CURTAINS TYPE 2 ACCORDING TO IEC 61496-1 AND 2

- Compact housing (28 x 30 mm) and no dead zone on cap side
- Resolution 30, 40, 50, 90 mm for hand protection and presence control and 2, 3, 4 beams for body protection/access control
- Controlled distance up to: 3, 4,10, 12 m
- Base, Standard versions and Master, Slave version to connect up to 3 sets in cascade configuration
- Selectable Automatic/Manual Restart and EDM integrated functions (Standard models)
- Selectable controlled distance
- IP69K protection models (LS2\_K) and models with integrated heating system to reach -25°C operating temperature (LS2\_H)
- Standard M12 da 5 and 8 poles connectors





Detection properties	
Nominal sensing distance	≤ 12m
Resolution	90mm
controlled height	1360mm
number of rays	18
Effective Aperture Angle	±5°

#### Application

Function Principle

#### Safety parameters

Туре	2
SIL	1
SILCL	1
PL	C
PFHd	3,41E-08
Dcavg	92,60%
MTTFd	100
CFF	80%

#### Outputs

Output type	2 x PNP-NO (OSSD safety output)
Response time	6,5ms
Response Time (Master + Slave)	T=[0,1104*(Tslave+Tmaster)+1,1044]*2
Response Time (Master + 2 Slave)	T=[0,1104*(Tslave1+Tslave2+Tmaster)+1,3228]*2

#### **Electrical data**

Operating Voltage	19,2 28,8 Vcc
Load current	≤ 400mA
Time delay before availability	2s
Interference to external light	according to IEC 61496-2
Power Consumption - Receiver	2W(no load)
Power Consumption - Emitter	1W
Equivalent Resistive Load	$\geq$ 60 $\Omega$
Capacitive Load	≥ 0,82 µF
Cabel Length (Power Supply/Output)	≤ 100m
Cable Length for Master Slave Interconnections	≤ 50m

#### Mechanical data

Dimensions	28mm (front) x 30mm	
Connections	M12-5 poles (emitter) M12-5 poles (receiver)	
Operating temperature	-10°C ÷ +55°C (no condensation)	
Storage temperature	-25°C ÷ +70°C (no condensation)	
humidity	95% (no condensation)	

### Test/Approvals

Approvals	CE, cULus, TÜV
EMC compatibility	According to 2014/30/EU Directive
Shocks and vibrations	according to IEC 61496-1
Degree of protection	IP65, IP67

#### Accessories

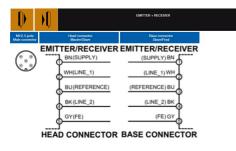
Supplied Accessories

ST 204 6S

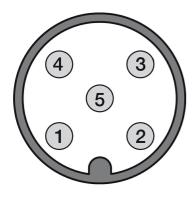
#### **Generical Data**

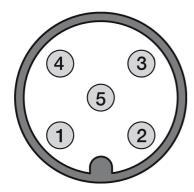
Dimensions	28mm (front) x 30mm
Operating Temperature	-10°C ÷ +55°C (no condensation)
Humidity	95% (no condensation)
Mechanical Protection	IP65, IP67

# **ELECTRICAL DIAGRAMS OF THE CONNECTIONS**



# CONNECTOR





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