





GARDIX Accident Prevention Light Barrier USL



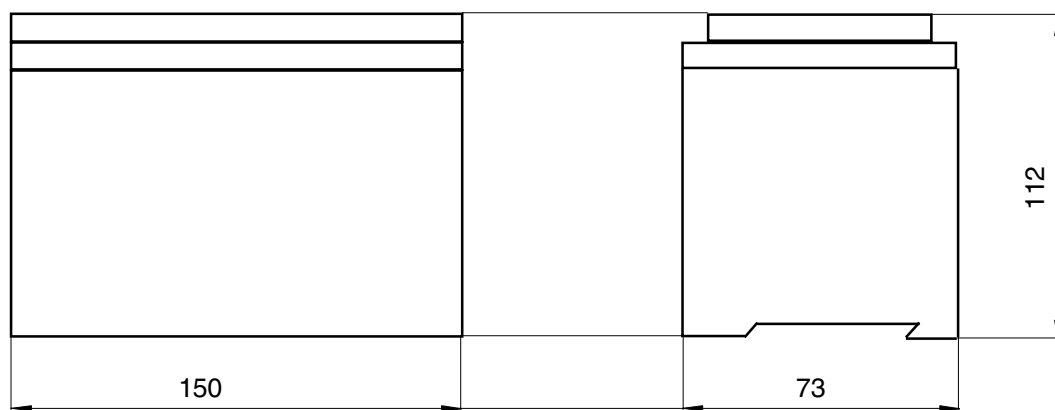
ISO 9001 ATEX

BG PRÜFZERT / PTB Ex-Approval

- Safety Light Barrier for Accident Prevention in dangerous area
- Safety Category 4
- Also for applications in Ex-Zones 1 and 2
- Optimal alignment help by state indication in the receiver optic
- High EMC level

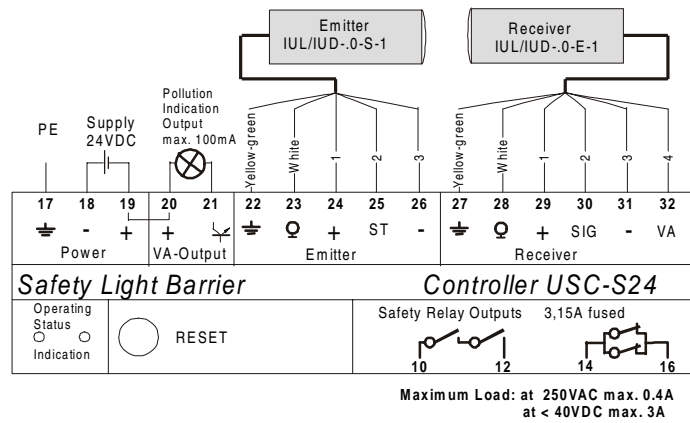
	Types	USC-S24	USC-S24A	UDC-S24A
System U.C-.. Controller				
Count of Light Barriers		1		
Supply Voltage		24 VDC +/- 10%		
Current Consumption		330mA (incl. Light Barriers)		
Power Consumption		9.24W		
Circuit Speed		30ms (worst time to switching off the safety relay contacts)		
Safety Outputs, Type		Relay contacts forcibly actuated		
Safety Outputs, Contacts		1xNO + 1xNC (internal redundancy)	2xNO + 2xNC	
max. Load		AC: 0,4 A at 250VAC - DC: 3A at U<40VDC		
Pollution Output		1 x NPN / 100mA / Short Circuit Resistant		
Enclosure Rating		IP20 according to EN 60529		
Safety Light Barrier (BLS)				
Designation: Safety Light Barrier, Standard		IUL-.0-SE-1	IUL-.0-SE-A1	IUL-.0-SE-A1
Designation: Safety Light Barrier, Ex d 		IUD-.0-SE-1	IUD-.0-SE-A1	IUD-.0-SE-A1
Sensing Range		10m or 30m (additional designation -10/30)		
min. Sensible Object Size		20mm		
Wavelength		880nm (Infrared)		
Radiation Pattern		max. 4°		
Housing, Standard		M30, Yellow Brass Nickel Plated		
Housing, Ex 		M30, Yellow Brass Nickel Plated, EEx d IIC T6		
Enclosure Rating		IP 65 according to EN 60529		
General				
Ambient Temperature T _A (all elements)		-20°C < T _A < +50°C		
Options		- Standard Safety Light Barriers with Connector ..-T - Laser Safety Light Barriers, Cl. 2 / 30m - Cable Length up to 100m		

Dimensions:

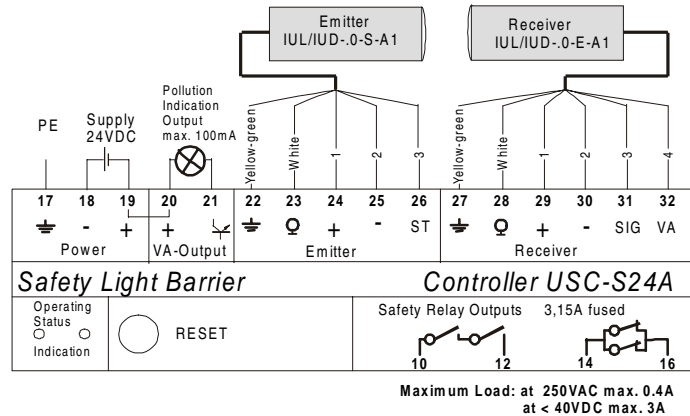


Mounting on DIN rail track 35mm x 15mm (EN 50022)

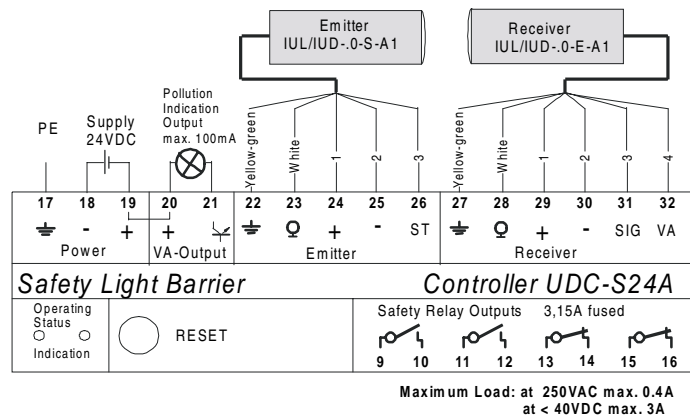
Connection Layout USC-S24:



Connection Layout USC-S24A:



Connection Layout UDC-S24A:



General Notes

For more details to the Safety Light Barriers look to the corresponding data sheet.

Accident Prevention:

When installing the system USL it is necessary to take into consideration the complete operating manual. Safety is only achieved, when all conditions regarding application, installation, safety arrangements, safety distances and maintenance are satisfied.

Ex-Protection:

It is necessary to take into consideration the valid international and national rules and regulations. The controller must be installed outside the hazardous location. The local equipotential bonding have to be done. On Ex-d safety light barriers the PE (Protective earth) is solidly connected with the housing and to connect on the PE-terminals at the controller. Additional optical devices are not allowed in hazardous locations. The cables have to be installed and protected against damages. Connection of cables inside hazardous locations only in certificated Ex-e housings. The end of the cable has to be connected outside the hazardous location at the controller. The electrical connections must be exactly as shown in the control drawing for hazardous locations.

Connection:

The connection layout is strictly observed. Do not exceed the maximum ratings. Connection cables must not be installed parallel to high voltage cables.

Safety Informations

When installing and operating the safety system USL, it is necessary to take into consideration the valid international and national regulations specially for Ex-protection and accident prevention:

ATEX118a, EX-RL, ElexV, TrbF, TRD, UVV

Standards met:

- EN 50100-1; prEN 50100-2; EN 954; EN 50014, EN 50018; EN 50081-1/-2, EN 50082-1/-2, EN 60825-1
- Ex-Protection 76/117/EEG
- Machine directives 89/392/EEG, 91/368/EEG, 93/44/EEG, 93/68/EEG
- Low voltage directives 73/23/EEG, 93/68/EEG
- EMC 89/336/EEG, 91/263/EEG, 92/31/EEG, 93/68/EEG

General Informations

We reserve the right to modify our equipment. Our equipment is designed such way, that it has the least possible adverse effect on the environment. It neither emit or contain any damaging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations.

Approvals

BG-PRÜFZERT, EU-Certificate of conformity

PTB Ex-83/1072, - PTB Ex-83/1118

Usl_e1/SEP.11,00/HB