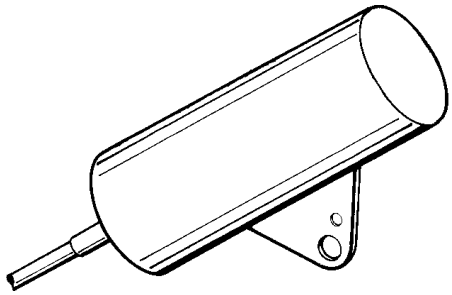
Proxitron
Sensoren für Automation

Piros Thru-Beam Sensor
LAA 201.1 (Transmitter)

Piros thru-beam sensor for material monitoring and object detection in steel and rolling mills.

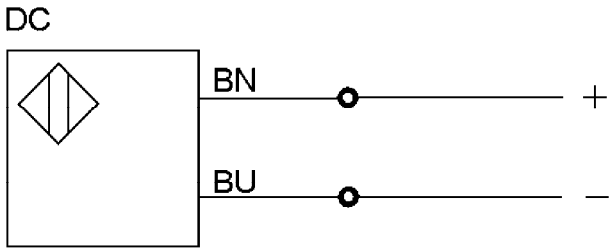
Robust stainless steel design with LED indication

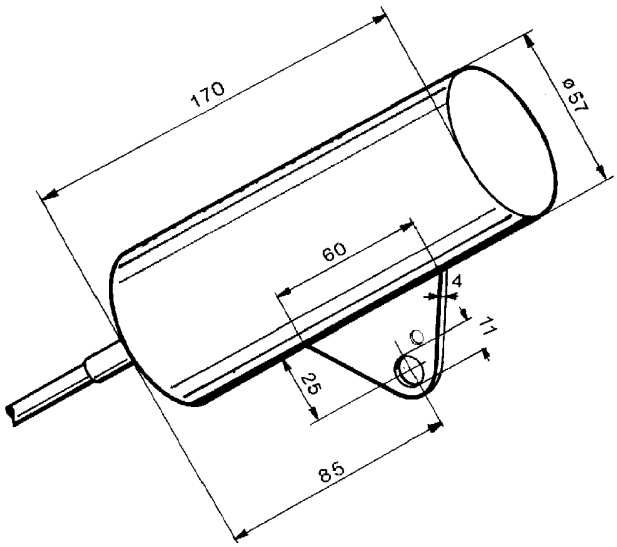


Technical data

Type	LAA 201.1
Art.-No.	5004N
Usable with receiver	LSA 201 LSB 201
Range	25 m max.
Function	transmitter
Supply voltage	24 V DC
Ripple voltage	15 % max.
Current absorbed	approx. 30 mA
Ambient temperature	-20 ... +80°C
Protection class	IP 67
Connection	2m POKT-Therm cable
Supply voltage display	LED
Housing material	stainless steel

Diagram of connections





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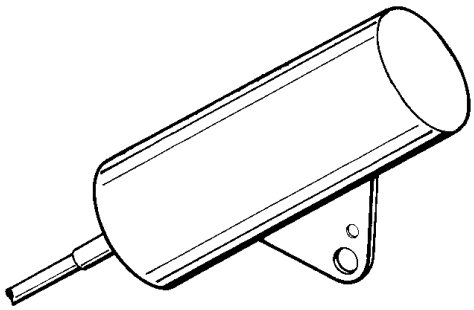
Sensoren für Automation

Piros Thru-Beam Sensors
LSA 201.18 G (Receiver)

Piros thru-beam sensor for material monitoring and object detection in steel and rolling mills.

Robust stainless steel design with electronic adjusting aid and contamination control by LED indication

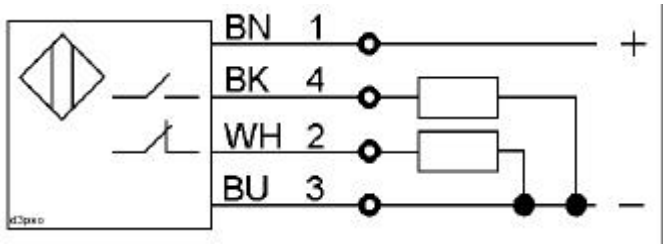


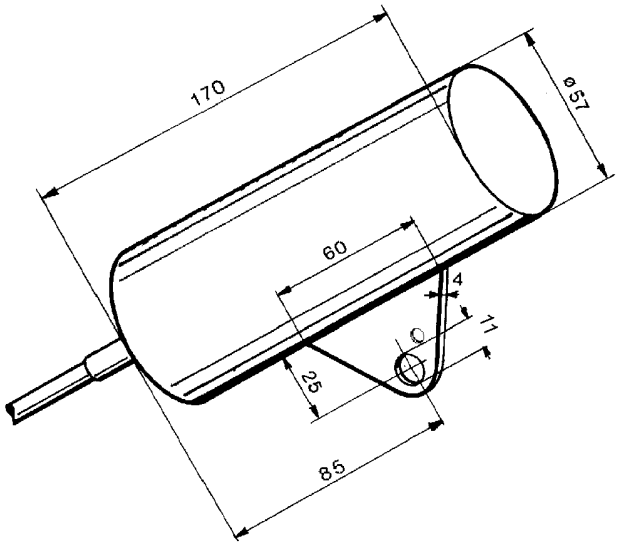
Technical data

Type	LSA 201.18 G
Art.-No.	5010D
Usable with transmitter	LAA 201 LAB 201
Output closed by beam-interruption opened by beam-interruption	PNP n. o. PNP n. c.
Range	25 m
Function	receiver
Supply voltage	24 V DC
Ripple voltage	15 % max.
Load current max.	0 - 400 mA
Short-time load current	2 A / 10 ms 0,8 A / 100 ms
Short circuit protection	yes, pulsing
Current absorbed	approx. 35 mA
Operating frequency	100 Hz
Ambient temperature	-20 to +80 °C
Protection class	IP 67
Connection	2m POKT-Therm cable
Function display	LED Ø 5mm
Adjusting device and contamination control	3 LED Ø 3mm
Housing material	stainless steel

The electronic adjusting device of Proxitron thru-beam sensor receivers serves for exact alignment to the transmitter. When the thru-beam sensor swivels, the green LEDs reach their max. indication in the centre of the optic axis. If no IR-radiation from the transmitter reaches the receiver, all three 3 mm LEDs remain dark. Already slight transmitter radiation incoming causes the receiver to switch. Normally-close: large LED (red) gives light. Normally-open: large LED (red) stops to give light.
In the moment of switching the left 3 mm LED starts blinking in red. Thus it indicates: there is radiation, but it is not sufficient for safe operation. With increasing radiation the left LED changes from blinking in red to green light. Now safe operation is guaranteed. During alignment it should be tried to induce the second and third green LED to show green as well, in order to reach max. possible safety margin for operation.

Diagram of Connections





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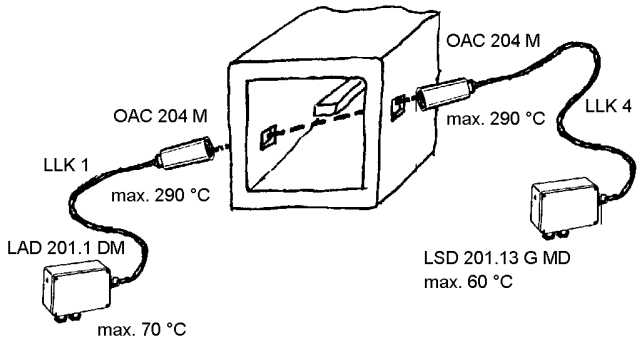
Sensoren für Automation

Piros Thru-Beam Sensor
LAD / LSD 201

For years Proxitron sensors for material pursuance have proved to be successful in hard applications in steel mills. Object identification within channels and annealing furnaces is rendered even more difficult because of long measuring paths at high background radiation. Arrangements with Piros light barriers of series LAD 201 have proved to be reliable for these applications.
The basic version LAD 201 (sender) with LSD 201 (receiver) reaches a barrier widths of 25 m. In the sketch the receiver consists of a transmission path with optic (OAC 204) and a fibre optic cable of 4 m length (LLK 4). Thus the receiver (LSD 201) can be installed beyond the warm furnace area.



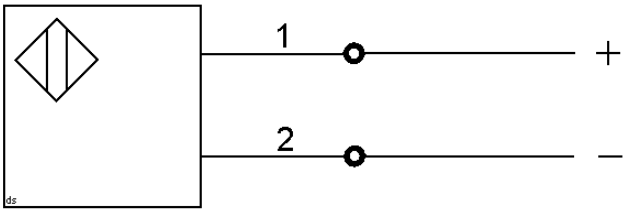
Technical Data

Type	**LAD 201.1 DM**
Art.-Nr.	5004Q
Function	transmitter
Range	25 m max.
Supply voltage	24 V DC
Current absorbed	approx. 30 mA
Ambient temperature	-25 to +70 °C
Protection class	IP 67
Connection	terminals
Function display	LED
Housing material	aluminium

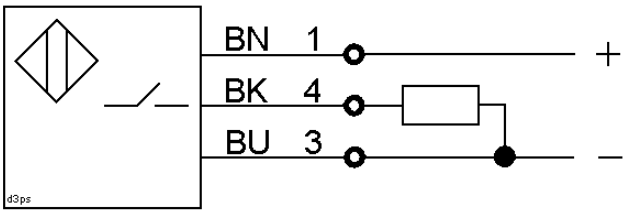
Type	**LSD 201.13 G MD**
Art.-Nr.	5005E
Function	receiver
Range	25 m max.
Output	PNP n. o. closed by beam-interruption
Supply voltage	24 V DC
Current absorbed	approx. 35 mA
Load current max.	0-400 mA
Short circuit protection	yes, pulsing
Operating frequency	100 Hz
Ambient temperature	-25 to +60 °C OAC / LLK -40 to +290 °C
Protection class	IP 67
Connection	terminals
Function display	LED
Adjusting device and contamination control	LED
Housing material	aluminium
Accessories	**Art.-No.**
Protection tube	9824H
Fiber optic cable 1,5 m	6436E

Diagram of Connections

Transmitter LAD 201.1 DM



Receiver LSD 201.13 G MD



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Adjusting Device LSD 201

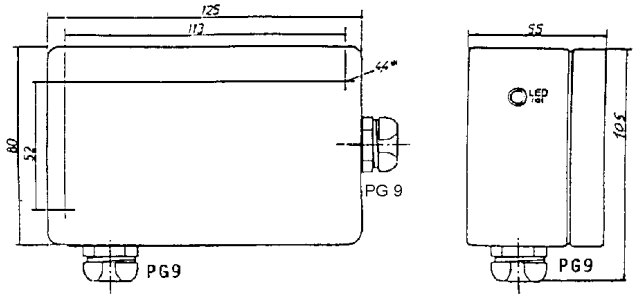
The electronic adjusting device of Proxitron thru-beam sensor receivers serves for exact alignment to the transmitter. When the thru-beam sensor swivels, the green LEDs reach their max. indication in the centre of the optic axis. If no IR-radiation from the transmitter reaches the receiver, all three 3 mm LEDs remain dark. Already slight transmitter radiation incoming causes the receiver to switch.

Normally-close: large LED (red) gives light.

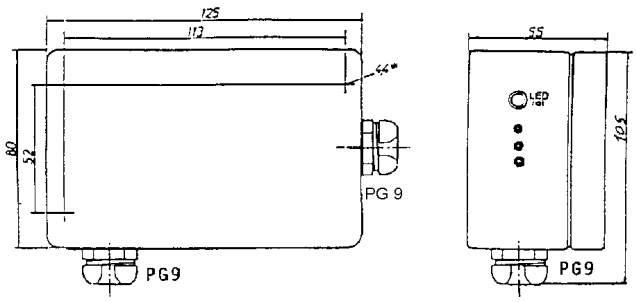
Normally-open: large LED (red) stops to give light.

In the moment of switching the lower 3 mm LED starts blinking in red. Thus it indicates: there is radiation, but it is not sufficient for safe operation. With increasing radiation the lower LED changes from blinking in red to green light. Now safe operation is guaranteed. During alignment it should be tried to induce the second and third green LED to show green as well, in order to reach max. possible safety margin for operation.

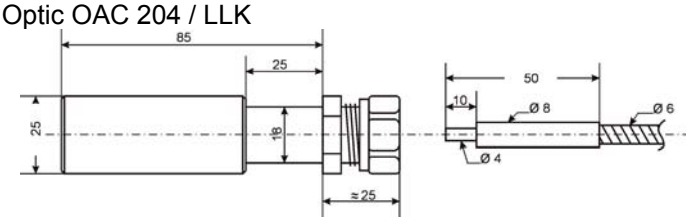
Transmitter LAD 201.1 DM



Receiver LSD 201.13 G DM



Optic OAC 204 / LLK

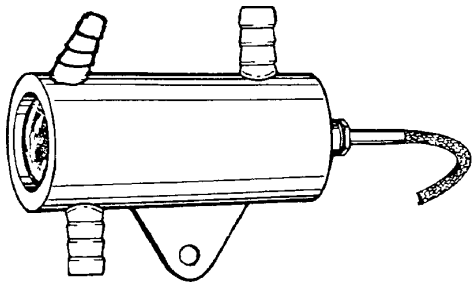


Proxitron
Sensoren für Automation

Piros Thru-Beam Sensors
LSB 201.53 LK (Receiver)

Piros thru-beam sensor for material monitoring and object detection in steel and rolling mills.

Robust stainless steel design with electronic adjusting aid and contamination control by LED indication

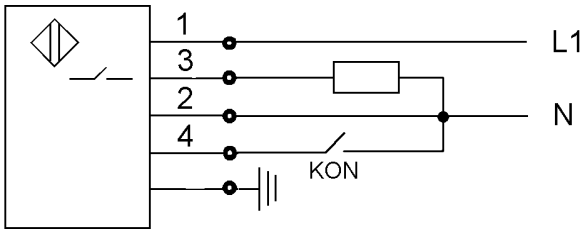


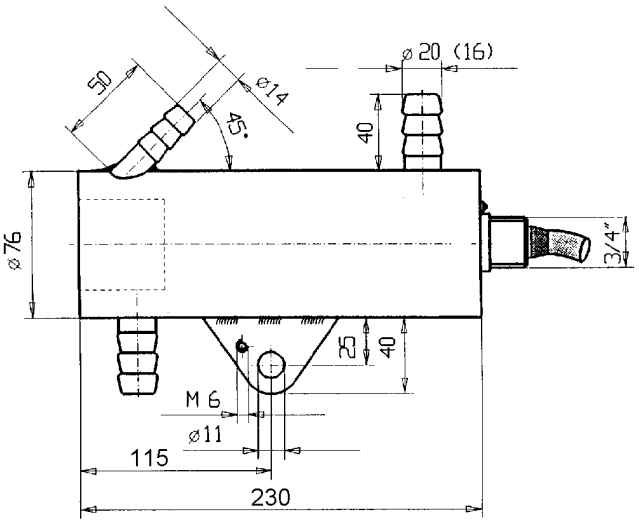
Technical data

Type	LSB 201.53 LK
Art.-No.	5003L
Usable with transmitter	LAA 201 LAB 201
Output closed by beam-interruption	normally open
Range	25 m
Function	receiver
Supply voltage	115 V AC ±15%
Power frequency	45 – 65 Hz
Load current max.	0 - 400 mA
Short-time load current	2 A / 10 ms 0,8 A / 100 ms
Short circuit protection	yes
Current absorbed	approx. 40 mA
Operating frequency	25 Hz
Ambient temperature	-20 to +80 °C without cooling
Protection class	IP 67
Connection	2 m steel armoured silicone cable with G 3/4" flexible tube connection
Function display	LED Ø 5mm
Adjusting device and contamination control	3 LED Ø 3mm
Housing material	stainless steel with cooling jacket

The electronic adjusting device of Proxitron thru-beam sensor receivers serves for exact alignment to the transmitter. When the thru-beam sensor swivels, the green LEDs reach their max. indication in the centre of the optic axis. If no IR-radiation from the transmitter reaches the receiver, all three 3 mm LEDs remain dark. Already slight transmitter radiation incoming causes the receiver to switch. Normally-close: large LED (red) gives light. Normally-open: large LED (red) stops to give light.
In the moment of switching the left 3 mm LED starts blinking in red. Thus it indicates: there is radiation, but it is not sufficient for safe operation. With increasing radiation the left LED changes from blinking in red to green light. Now safe operation is guaranteed. During alignment it should be tried to induce the second and third green LED to show green as well, in order to reach max. possible safety margin for operation.

Diagram of Connections





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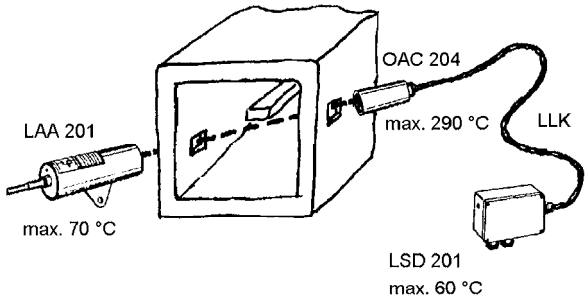
Sensoren für Automation

Piros Thru-Beam Sensor
LAA / LSD 201

For years Proxitron sensors for material pursuance have proved to be successful in hard applications in steel mills. Object identification within channels and annealing furnaces is rendered even more difficult because of long measuring paths at high background radiation. Arrangements with Piros light barriers of series LAA 201 have proved to be reliable for these applications.
The basic version LAA 201 (sender) with LSD 201 (receiver) reaches a barrier widths of 25 m. In the sketch the receiver consists of a transmission path with optic (OAC 204) and a fibre optic cable of 5 m length (LLK 5). Thus the receiver (LSD 201) can be installed beyond the warm furnace area.



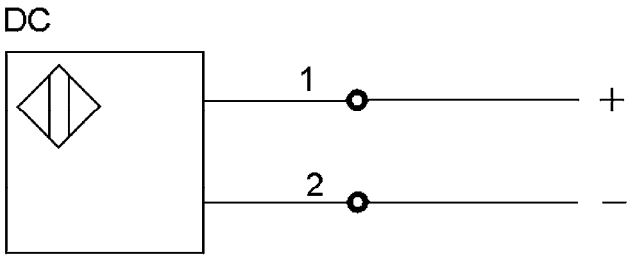
Technical Data

Type	**LAA 201.1 DM**
Art.-Nr.	5004P
Function	transmitter
Range	25 m max.
Supply voltage	24 V DC
Current absorbed	approx. 30 mA
Ambient temperature	-25 to +70 °C
Protection class	IP 67
Connection	terminals
Function display	LED
Housing material	stainless steel

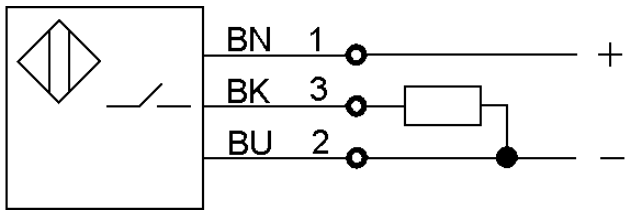
Type	**LSD 201.13 G MD**
Art.-Nr.	5005E
Function	receiver
Range	25 m max.
Output	PNP n. o. closed by beam-interruption
Supply voltage	24 V DC
Current absorbed	approx. 35 mA
Load current max.	0-400 mA
Short circuit protection	yes, pulsing
Operating frequency	100 Hz
Ambient temperature	-25 to +60 °C OAC / LLK -40 to +290 °C
Protection class	IP 67
Connection	terminals
Function display	LED
Adjusting device and contamination control	LED
Housing material	aluminium

Diagram of Connections

Transmitter LAA 201.1 DM



Receiver LSD 201.13 G MD



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Adjusting Device LSD 201

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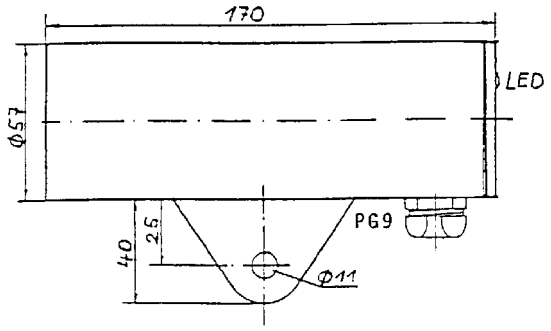
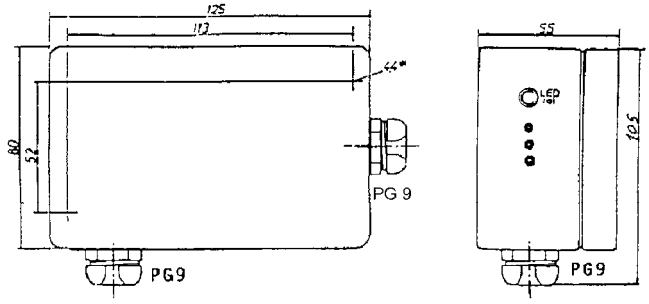
In the moment of switching the lower 3 mm LED starts blinking in red. Thus it indicates: there is radiation, but it is not sufficient for safe operation. With increasing radiation the lower LED changes from blinking in red to green light. Now safe operation is guaranteed. During alignment it should be tried to induce the second and third green LED to show green as well, in order to reach max. possible safety margin for operation.

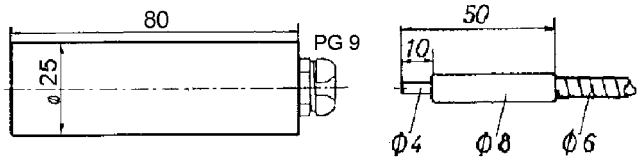
Transmitter LAA 201.1 DM



Receiver LSD 201.13 G DM



Optic for receiver OAC 204 / LLK



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Sensoren für Automation

Piros Thru-Beam Sensors
LAB 201.5 L (Transmitter)

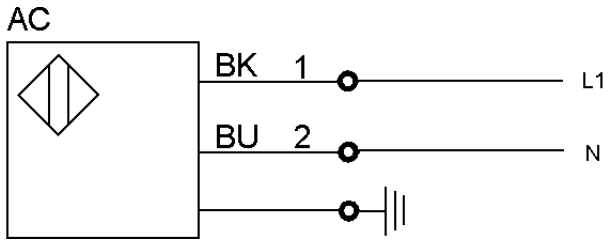
Piros thru-beam sensor with cooling shell for material monitoring and object detection in steel and rolling mills.

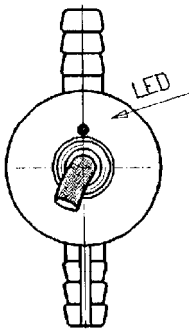
Robust stainless steel design with LED indication

Technical Data

Type	**LAB 201.5 L**
Art.-No.	5002C-3
Usable with receiver	LSA 201 LSB 201
Range	25 m max.
Function	transmitter
Supply voltage	115 V AC +/- 15 %
Power frequency	45 - 65 Hz
Current absorbed	approx. 40 mA
Ambient temperature	-20 ... +80°C
Protection class	IP 67
Connection	3m POKT-Therm cable
Supply voltage display	LED
Housing	stainless steel with cooling jacket and air connection

Diagram of Connections





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