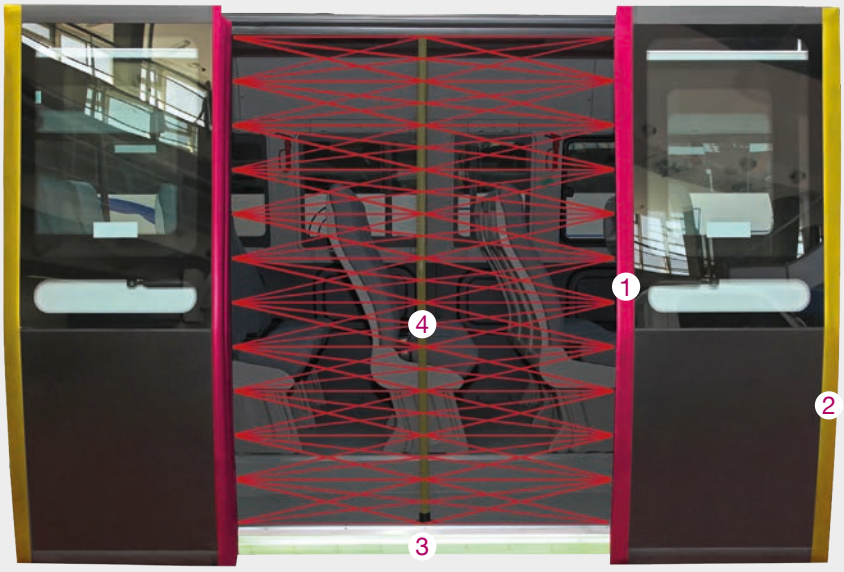

1. Finger protection profile on the door's leading edge
2. Impact protection on the secondary closing edge
3. Foot protection edge
4. *SensIQ touchless*

Light curtain: ***SensIQ touchless***

Door-closing systems that think ahead
Anti-trap door protection for buses and trains

The *SensIQ touchless* light curtain is a touchless safety system for monitoring the entry and exit areas of power-operated vehicle doors.

How it works
Through a combination of parallel and crossed infrared beams, the light curtain system monitors the passage area for any obstacles.

When one of these light beams is obstructed, a switching pulse is generated that causes the door to remain open or to reverse when in the process of closing. Persons and objects in the risk area are thus actively detected.

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How to integrate the *SensIQ touchless* light curtain in your door-closing system:

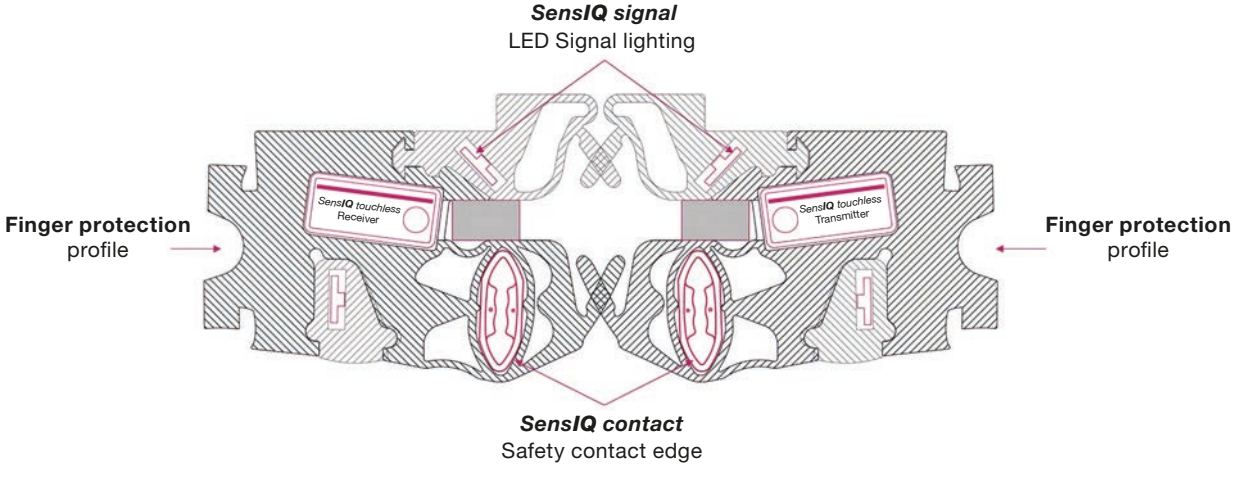
Installation possibilities of *SensIQ touchless*

- Integrated in HSK aluminum profile
- Integrated in finger protection profile
- Integrated in an aluminum profile which can:
  - Be screwed onto the door panels
  - Be screwed into the portal (interior laterally to the door)
- All models can be retrofitted

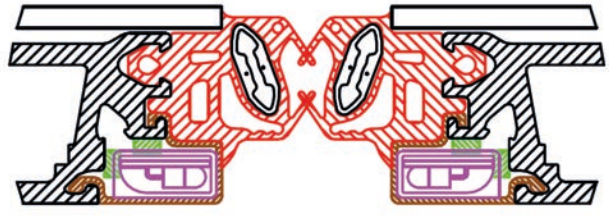
The integration of *SensIQ touchless* in a finger protection profile provides the following benefits:

- Touchless anti-trap protection directly at the door's leading edge aluminium profile
- Interior space immediately in front of the door is completely accessible
- Suitable for straight, curved and angled doors
- Can be used on IST, AST, SST, FT, DFT, ST
- Cost reduction through elimination of installation parts
- Automatic testing function
- XOR output to driver
- Vandalism resistant

Possible integrated solution using *SensIQ* products



SensIQ touchless SST or AST



Technical Data

Dimensions

Model	RM46 - 32 beams	RM46 - 12 beams	RM92 - 16 beams
Length in mm	1546	1178	1546
	Other lengths are possible		
Installation position	Along the door's vertical edge		

Material properties

Housing material	Transparent polycarbonate

LED properties

Model	linear		
LED spacing in mm	46	92	92
Placement of lowest beam in mm	24 (from bottom edge)		
Light type in nm	IR LED 950		

Switching properties

Height of sensor area in mm	1426	1012	1380
	Other sensor heights are possible		

Mechanical operating conditions

Operating temperature	-25°C to +70°C
Storage temperature	-40°C to +80°C

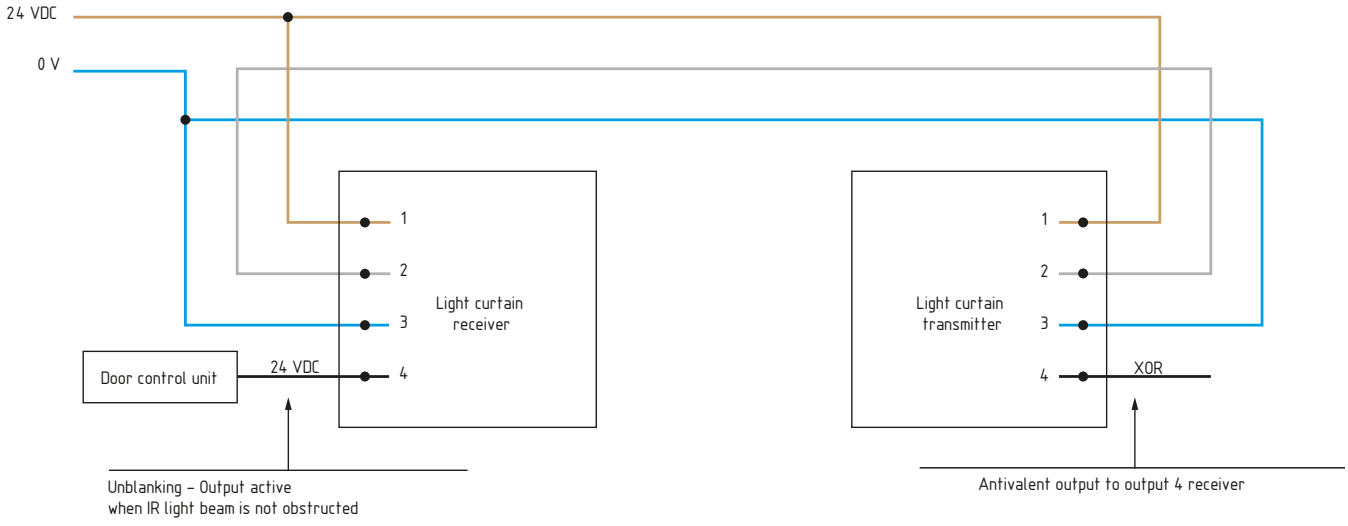
Electrical operating conditions

Voltage	24 VDC Direct connection reverse polarity protected
Current	< 100 mA RMS; < 200 mA Peak
Signal control indicator	Red LED on transmitting and receiving edges
Switching output	PNP - Max. 0.8 A, short-circuit proof
Output function	Receiver: Unblanking, output active when IR light beam is not obstructed
	Transmitter: Blanking, output passive if IR light beam is not obstructed
Sensitivity setting	Fully automatic
System control function	For each transmitter/receiver, a PNP-output (antivalent to each other)

Testing and certifications

Railway	DIN EN 14752:2015	Applicable clauses fulfilled
Fire & Smoke (train)	DIN EN 45545-2	Passed
EMC & Environment (train)	DIN EN 50155:2017	In assessment
Bus	ECE-R 107	Applicable clauses fulfilled
Fire & Smoke (bus)	ECE-R 118/03	Passed
EMV (bus)	ECE-R 10/05	In assessment
E1 (bus)		In assessment
Insensivity to ambient light	Under normal conditions, sunlight will not cause interference	
Vibration protection	Integrated	
Protection Class	IP67	

Wiring Diagram



PIN assignment
M8 plug

1	=	brown
2	=	white
3	=	blue
4	=	black

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