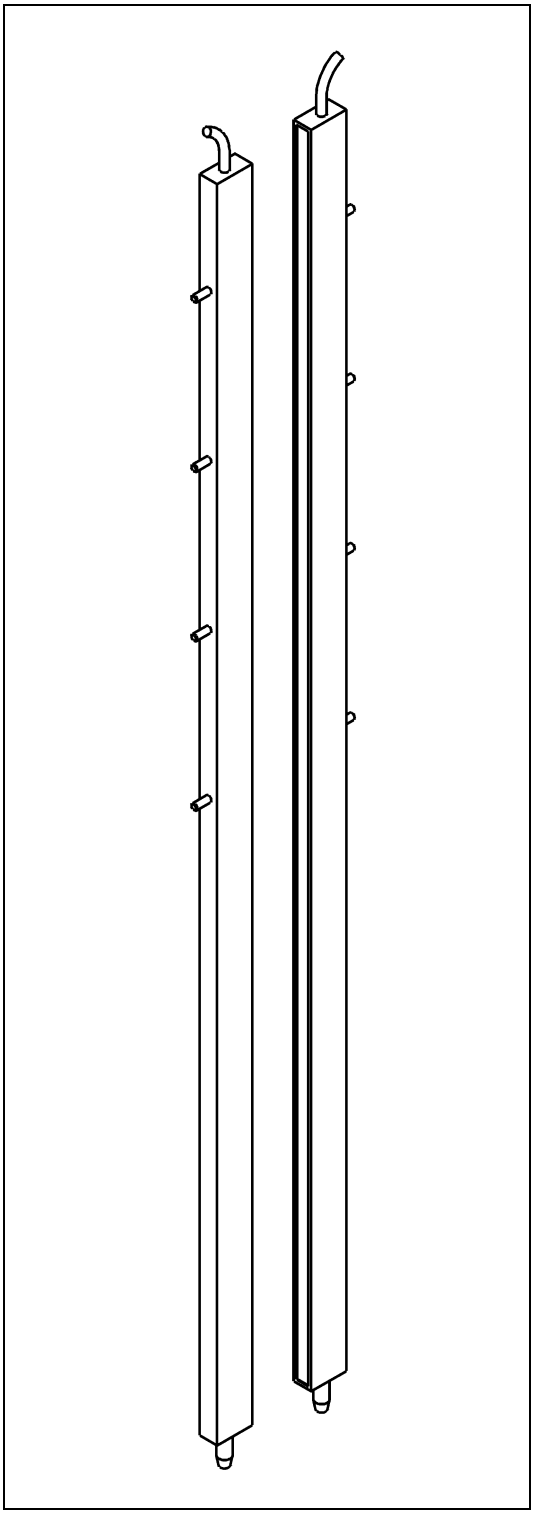
Safety edge MEILLER – LT 40

40 beam levels (EN81 – 20)

The LT 40 – safety edge can be used as a large-area closing edge locking device in all MEILLER-cabin sliding doors.

The safety edge unit consists of a transmitter and receiver skirt with integrated evaluation electronics.



Advantages of LT 40 – safety edges:

Lighting strips

- No external control device necessary – evaluation electronics integrated in the lighting strips
- Voltage supply 24V DC, pole confusion-proof
- 2 Short-circuit proof, impulse switching transistor outputs for bright or dark switching
- Status and operating display by LED in both strips
- High availability by blanking out defective beams
- Permanent blanking out possibility of the uppermost beams by low fitted door tappet 1600mm-1814mm (EN81-70 range)
- Automatic adjustment to reach of approximately 0.7...5 m
- Optical synchronisation
- Prefabricated connecting cables
- No costly movable cable transfer necessary as lighting strips will be fixed installed
- High international protection IP 54
- Monitoring height 1,800 mm meets requirement to EN81-70
- Standards compliance: EN81-20 & EN81-70
- Lighting skirts from aluminium, naturally anodised with red front pane
- Easy and proven assembly technology due to bottom guide bolt and upper screwed connection to the strips
- Assembly to the fighter sides and threshold angle
- Filigree safety edge holder gives optical advantage for all-glass lifts

LT 40 / LGM – power supply

(Option, if 24V DC not available)

- Connection voltage 110 / 230 V AC
- Plastic housing IP 65
- Accompanying cable screwed connections
- 2 integrated relays for signal output
- Buzzer, can be switched off
- LED-status display
- Connections via spring-loaded clamps

1. TRANSMITTER AND RECEIVER SKIRT

The 2000 mm long aluminium sections of the transmitter and receiver strips, as standard naturally anodised, contain 40 infrared beam levels with equal beam distances.

The uppermost beam levels (1600 – 1814mm EN81-70 range) can be covered with a foil, impenetrable for infrared light. With this, lower installed door tappets can be blanked out. After taking off the foil, all beams are activated again.

The first transistor signal output (wire colour black) in the receiver skirt switches through, if the monitoring area is free (no beam interrupted) = switching bright.

The behaviour of the signal output for dark switching can be changed by changing the polarity of the receiver (+/-).

As soon as at least one beam has been interrupted, the output will be either switched off or on.

In case of electrical defects in the skirts, the system can be operated with reduced monitoring density. In this case, the fault signal output, which under normal circumstances is at 24VDC, drops to 0VDC (i.e. the beam has failed and is blanked out).

Due to the automatic sensitivity setting, manual balancing is not necessary.

The fixed installed 4 m long connecting cables have been prefabricated with wire end bushes to connect to the control.

2. LED-DISPLAYS AND FAULT DIAGNOSIS

When recognising a fault, the LED displays a fault code. It will not be displayed any longer, as soon as the cause of the fault has been removed.

Receiver skirt

LED 1	LED 2	Operating mode	Monitoring area
Off	Off	Off	Unknown
On	On	Ready for operation	Free
On	Off	Ready for operation	Beam interrupted
Flashing	On	Small fault	Free
Flashing	Off	Small fault	Beam interrupted
Flashing fast	Off	Configuration error	Unknown
Flashing	Flashing	Bad fault	Unknown

Small fault:
Honeycomb grating continues to function with restriction: e.g. beam blanking out. In this case, the fault signal output is set to 0VDC!

Bad fault:
Honeycomb grate does not function any more.

Transmitter skirt

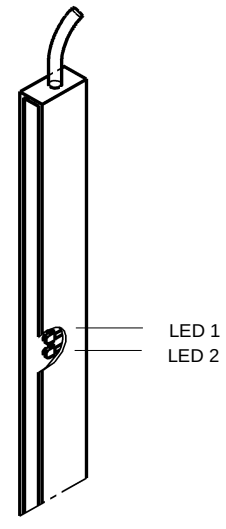
LED	Operating mode
Off	Off
On	Ready for operation
Flashes	Fault

Blanking out permanently interrupted beams:

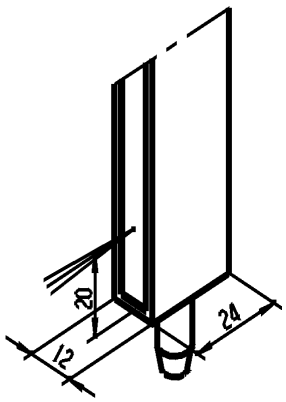
Two not adjacent beams, interrupted for longer than 60 seconds, will be automatically blanked out.
A small fault will be signalled.

3. NOTICE FOR ASSEMBLY AND START-UP

- If strips pairs influence each other, function disturbances occur.
- Strips pairs can also influence each other by reflection.
- At maximum 1.5 s after switching on the strips, the safety edge is ready for operation
- Isolate unused wires.
- Disconnect connectors during insulation measurements.
- Use earthed voltage supply.
- The safety edge are not certified safety edge grates to EN 61496 and not safety components within the meaning of the EG-Machine Guideline.
  They must not be used to avert dangers from persons.



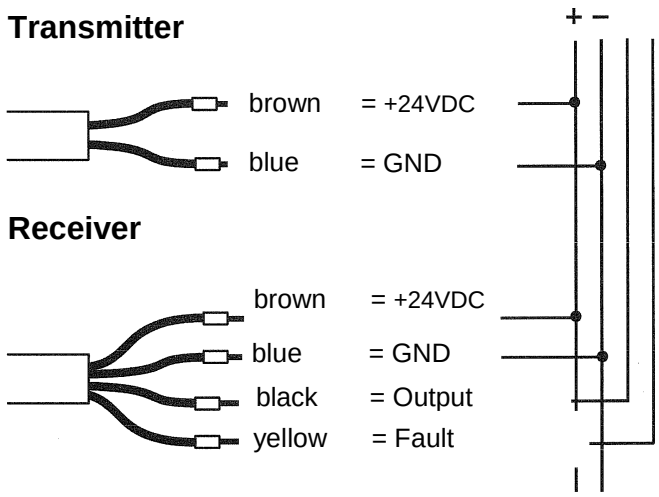
(Fig. 1) LED-displays receiver skirt



(Fig. 2) Section dimensions

4. LT 40 / LT20 / LGM – POWER SUPPLY

Should 24V DC voltage not be available in the lift plant, the LT 40 / LT 20 / LGM-power supply has to be used as an option.
This allows the operation with 110 / 230V AC and supplies the voltage for the safety edge.
The PNP-outputs of the safety edge control free from potential relay contacts for the signal outputs. The switching status of the safety edge grate will be displayed in the power supply on two LED.



(Fig. 3) Connections transmitter and receiver skirt

5. FASTENING PARTS

The accompanying assembly kits are available manufactured from galvanised steel sheet or stainless steel.
Furthermore, they differ in the use of different threshold designs (standard or covered guide) or assembly for threshold widening.
They will be assembled by the customer to already existing standard fastening holes.

6. TECHNICAL DATA

TRANSMITTER AND RECEIVER STRIPS:

Type:	LT 40/36-2000A (SAP 3000 9843)
Beam number:	40, no multiple crossing
Beam levels:	40 parallel beams
Beam distance:	46mm
Active height uppermost beam:	1814mm from UK skirt
Connecting voltage:	24V DC (18-30VDC) max. 5% waviness
Power consumption:	Nominal: 3.1W, peak 6.5W (MHz, 100µs)
Response time:	approximately 50ms
Switching outputs:	Transistor PNP-switching, short-circuit proof max. 200mA
Output:	Bright circuit / dark circuit (wire colour black)
Fault signal output:	Status OK: +24VDC, in event of fault: 0VDC (wire colour yellow)
Dimensions: (H x W x D)	2000 x 24 x 12mm
External light resistance:	700nm...1100nm: 25W/m² at 20° incident angle
Section type:	Aluminium, naturally anodised
International protection:	IP 54 (as per EN 60529)
Reach:	0.7 to 5m
Connecting cable:	4m with wire end bushes
Operating temperature:	-30°C to +45°C <90% relative, non-condensing
EMV-test:	pursuant to EN 55024:2010 and EN 55022:2010

LT40 / LT 20 / LGM – POWER SUPPLY: (Option)

Type:	LGM – power supply (SAP 3902 2868)
Operating voltage:	110V (AC) +5% -10% / 230V (AC) ±10% / 50Hz to 60Hz
Output voltage:	24V (DC)
Power consumption:	approximately 8W
Fuse:	0.2AT (5 x 20mm)
Relay outputs: (bright circuit/dark circuit)	250V (AC) 5A 1100VA
Buzzer installed:	can be switched off
Connections:	Spring-loaded clamps 0.2 to 1.5mm²
Housing type:	Insulating material
International protection:	IP 65
Dimensions: (H x B x T)	160 x 80 x 55mm
Cable penetrations honeycomb grate:	2 x PG7 screwed connections
connections:	3 x PG9 screwed connections
Cable diameter:	4,5 to 7mm
Operating temperature:	-10°C to +40°C

Technical modifications reserved.