

## Lumiglas Light/Sightglass Units Series ESKS or SKS

DATA SHEET 08.02

– hinged sightglass frame with or without luminaire –

### Application:

ESKS integral light/sightglass units have a quick release closure, so that they are a combination of charge/access port and light/sightglass. The integrated luminaire illuminates the internal of boilers, tanks, bunkers, silos, mixers and other vessels in all non Ex hazardous areas.

SKS type sightglass ports are of the same design, except they have no luminaire. Both types are suitable for food processing. Usually these units come with a weld flange, but for flat vessel walls they can also be installed with a bolt-on flange.

### Safety precautions:

**Warning:** the unit must never be opened before the pressure inside the vessel is reduced to zero!

### Protection:

When correctly fitted, dust and waterjet proof to IP 65, EN 60 529 / DIN VDE 0470 T1.

### Ambient Condition Operating Range:

The unit is vacuum proof and resistant to:

pressure up to 0,5 bar, type SKS/ESKS 225  
1,0 bar, type SKS/ESKS 150

max. vessel temp.: 150° C with soda lime glass  
200° C with borosilicate glass

ambient temp: max. 80° C at the cable gland

### Electrical Data:

power supply 24 V or 120 V, halogen lamp 50 or 100 W, 2-pin socket GY 6.35.

### Transformer:

Transformer can be supplied as extra item.

### Combinations:

ESKS and SKS units can be combined with SW I type wipers (see data sheet 02.01.)

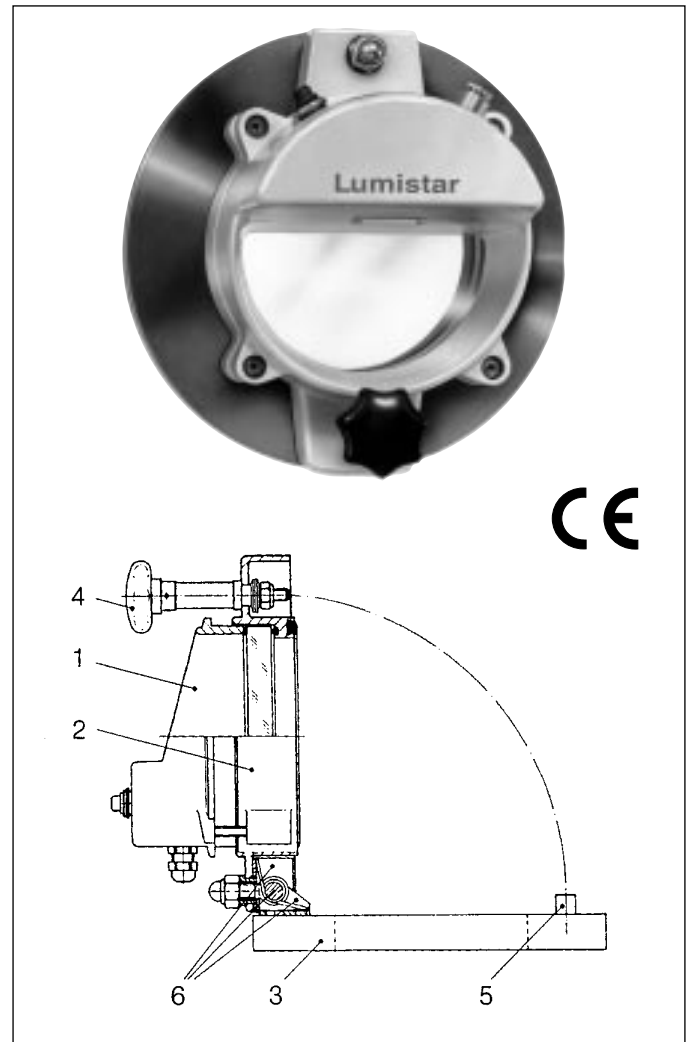
### Mechanical fitting:

The unit comes ready assembled. Before welding, the sightglass frame and the hinge assembly should be removed from the base flange. Check desired position i.e. direction of swing. The lug and hinge assembly holes are not identically spread. The weld flange must be welded into the vessel wall free of distortion; bolt-on flanges require an entirely flat vessel wall.

- 1 lumiglas luminaire (only with ESKS)
- 2 luminaire frame with sightglass
- 3 weld flange (resp. bolt-on flange with drilled holes)
- 4 closure knob
- 5 closure lug
- 6 hinge assembly
- 7 fastening ring (only with SKS, instead of luminaire)
- 8 'O' ring seal

### Lamp Change:

**Caution:** Since the unit must be opened for lamp change, reduce pressure in the vessel to zero, and put vessel out of operation. Check vessel for pressure and temperature before opening a sightglass fitting! See overleaf for lamp change instructions.

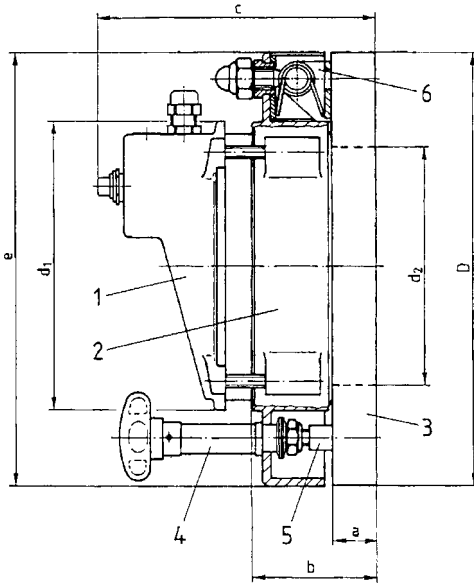


Complete unit ESKS, hinged light/sightglass on weld flange

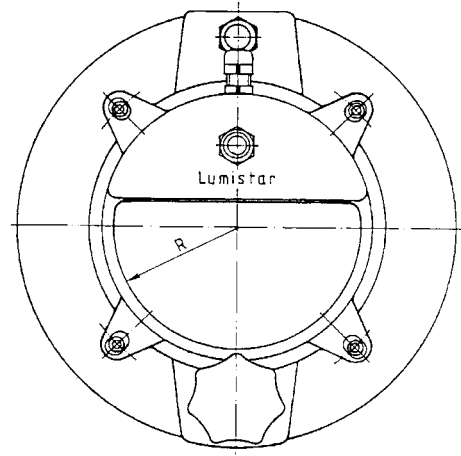


Sightglass unit SKS in open position, held up by spring tension

## Dimensions and electrical data of Lumiglas light/sightglass units type ESKS and SKS



- Item 1 Lumiglas luminaire
- 2 luminaire frame with sightglass
- 3 weld flange
- 4 closure knob
- 5 closure lug
- 6 hinge assembly



### Parts, Construction and Materials:

- Luminaire body: Corrosion resistant die cast aluminium, painted alum.-grey (RAL 9007)
- Weld flange: Carbon steel or stainless steel, e.g. 304, 321, 316
- Sightglass disc: Toughened (tempered) soda-lime glass or borosilicate
- Seals: Silicone rubber
- Lock: Galvanized or painted steel; knurled knob - plastic

**Ordering Information:** Please state e.g.: Lumiglass Light/Sightglass Unit, type ESKS 150, 24 V, 100 W, weld flange 1.4571, max. temp 200°C.

**Special Design:** When required, all product contact metal parts may be of stainless steel (304 L).

Type	ESKS 150	SKS 150	ESKS 225	SKS 225	
Dimensions	a	25	25	25	
	b	71	71	80	
	c	185,5	90	167	100
	d1	165	165	235	235
	e	250	250	335	335
	d2	136	136	205	205
	D	250	250	335	335
	R	70	70	104	104
Voltage	24 V, 120 V	no luminaire,	24 V, 120 V	no luminaire,	
Power intake	max. 100 W	just sightglass	max. 100W	just sightglass	

### Instructions for Lamp Change

**Note:** Before opening the port, vessel operation must be stopped and vessel must not be under pressure or temperature:

- switch off and disconnect luminaire.
- unscrew the fastening screws from the luminaire housing and remove luminaire 1 from frame 2.
- remove reflector and withdraw defective lamp.
- Replace halogen lamp with lamp of same type and size, use protective cloth/paper to ensure bare fingers do not touch the glass, insert into 2-pin socket hole and gently but firmly push in.
- Refit reflector, fasten luminaire 1 on frame 2 with fastening screw.
- Switch power to ON and check for proper function.