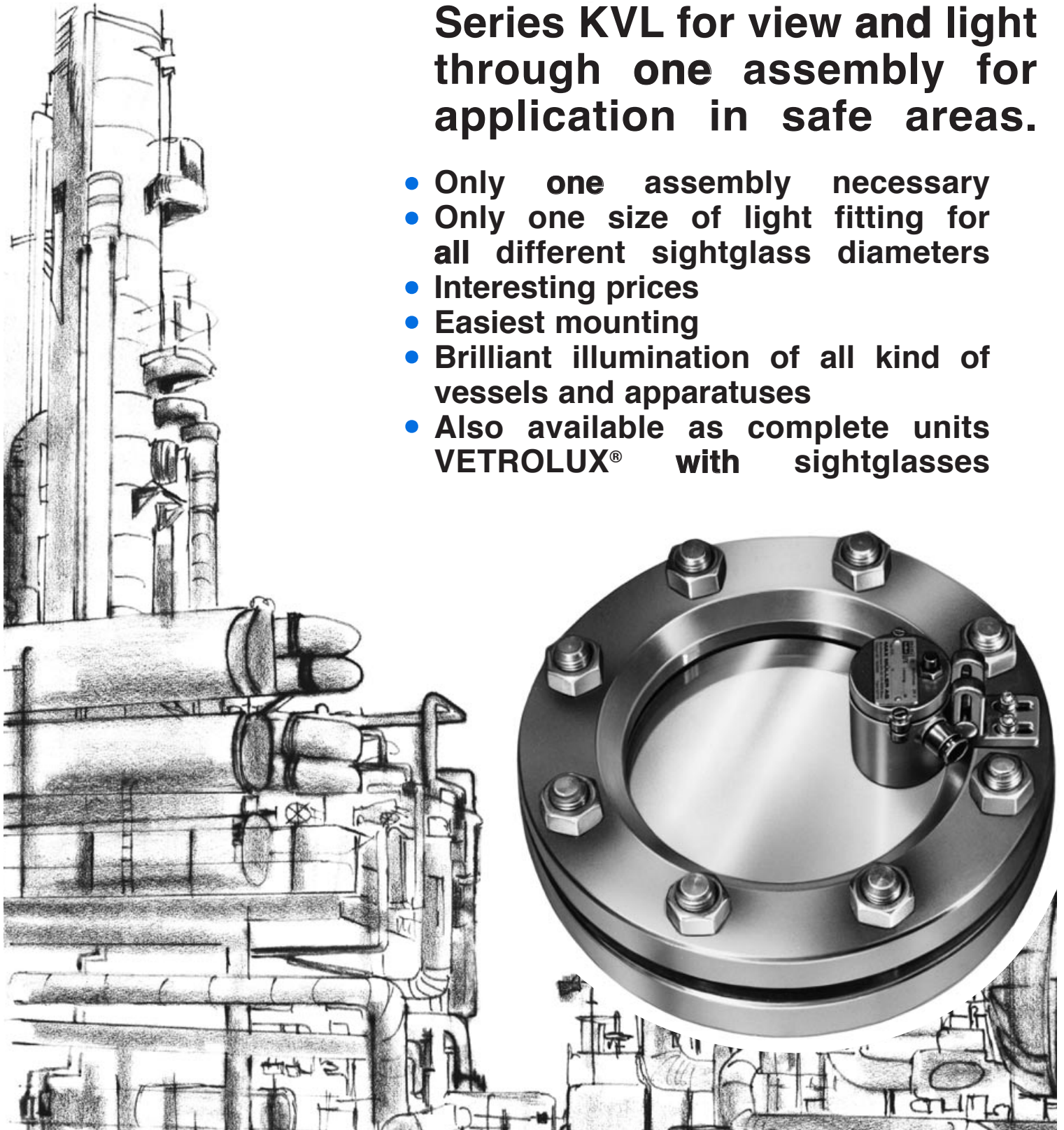


# SIGHTGLASS LIGHT FITTINGS

Series KVL for view and light through one assembly for application in safe areas.

- Only one assembly necessary
- Only one size of light fitting for all different sightglass diameters
- Interesting prices
- Easiest mounting
- Brilliant illumination of all kind of vessels and apparatuses
- Also available as complete units VETROLUX<sup>®</sup> with sightglasses





## Introduction

### Short information and advantages

### General technical data

In the chemical and pharmaceutical industries, in breweries, salt works, in water treatment plants, in the food and drink industries, in the dairy industry, sugar factories, dye and paint manufacturing plants, in the soap and cosmetics industry, the problem often arises how to light out agitated vessels, holding vessels, reactors, crystallizers, distillation columns, evaporators, centrifuges, upright vessels, silos, driers and similar equipment.

The reason for this is that, regardless of automation, manufacturing processes must be checked visually, liquid levels read off and drying or fermentation processes kept under observation. In other words, it is essential to carry out visual observation, either on a routine basis or, when necessary, daily or from hour to hour. And whenever an observation or a reading must be carried out, one needs

– light! This is what we provide with our range of light fittings for sightglass application, bundled, efficient, reliable, effective even when the sightglass is caked or the substances inside the vessels are highly light absorbent.

If required, our light fittings may be used round the clock or temporarily, depending on the equipment of the light fitting chosen. If you have a lighting problem – ask the experts for advice and use for your installations products of MAX MÜLLER AG. They have been thoroughly tested, are being used throughout the world, and are both solid and safe.

Remember: Our product range has a background of more than 40 years' experience, research and development in sight- glass light fitting technology. Both you and your customers will benefit from this technical know-how.

The light fittings of the series KVL offer a true alternative to the well known "half-half" light fittings of the series meta-LUX®. The miniLUX® series presents the following advantages:

- For the purchasing department:**
- Very interesting prices due to maximally rationalized production
  - Remarkably simplified stockage: Only 1 size necessary for **all** different diameters of sightglasses
- For the technician or design engineer:**
- Easy mounting by only 1 or 2 screws contained in our delivery
  - Equipped with halogen bulbs (20, 50 or 100 Watts)
  - Providing highly efficient lighting out due to incorporated reflector of high brilliance
  - Enclosure protection degree to IP 65
  - Admitted for use in food processing industries
- For the electrician:**
- Easiest connection
  - Quick change of bulbs **without** necessity to demount the bolted light fitting

**Application:** On sightglasses to or similar to DIN 28120 / 28121 or similar to 11851 of DN 50 - 200. (For view **and** light through **one** assembly **from DN 80 on**).

**Conditions of service:** miniLUX® sightglass light fittings are mounted independently of the pressure or vacuum of the apparatus to be fitted on. There are no restrictions for the mounting position.

**Construction:** Housing and fixations of corrosion-resistant cast aluminium alloy (on demand painted by 2 components acryl-based colour), cable gland Pg 9, at right or at left (following the specific application). Reflector incorporated, lamp sockets for bulbs of 20, 50 or 100 Watts, halogen bulb, built-in push-button "D" for momentaneous illumination (on request also available without for constant operation or with built-in ON-OFF switch "E"), built-in glass of high temperature resistance. Gaskets resistant against corrosion and alteration. Mounting by tilting hinge "Sch" on sightglasses to or similar to DIN 28120 / 28121 or adaptor on sightglasses similar to DIN 11851 (see next pages).

**Electrical characteristics:**

Supply:	24 V AC or DC (12 V possible with 20 or 50 Watts)
Power:	20 / 50 / 100 W
Maximum current:	4,2 A

**Enclosure protection degree:** IP 65, dust an spray water tight

**Also available as complete lighting units VETROLUX® for combined light and view with sightglasses. (To or similar to DIN 28120 or 28121 or similar to DIN 11851 as well as to ANSI standards or customers designs.)**

# Survey on standard types Supplementary technical data Typical assembly of a VETROLUX® sight / lightglass

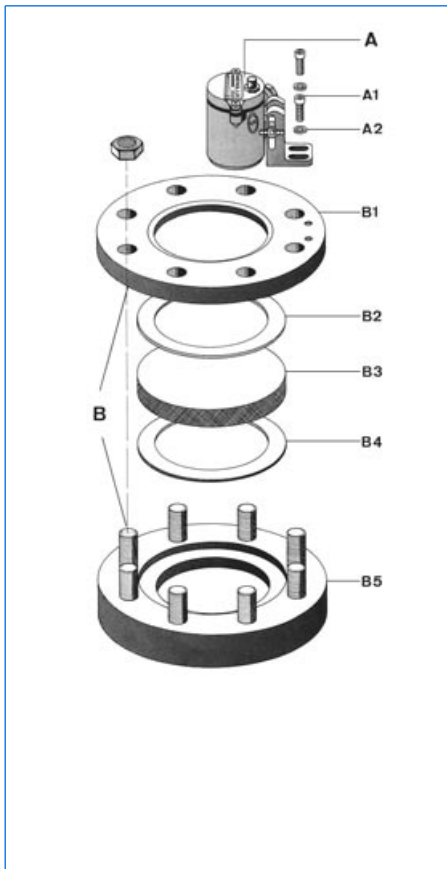


Type		KVL 20 H(D)	KVL 50 H(D)	KVL 100 HD
Nominal rating	(W)	20	50	100
Terminal voltage	(V)	24 (12)	24 (12)	24
Bulb		Halogen	Halogen	Halogen
Socket for bulb		G 4	GY 6.35	GY 6.35
Weight**	(kg)	0,27	0,27	0,27
To be mounted on sight-glasses of DN		50 – 200	50 – 200	50 – 200

\*\* Referring to tilting hinge fixation "Sch" for sightglasses to DIN 28120 / 28121 or similar. Mounted on screwed sightglasses similar to DIN 11851 30 g less.

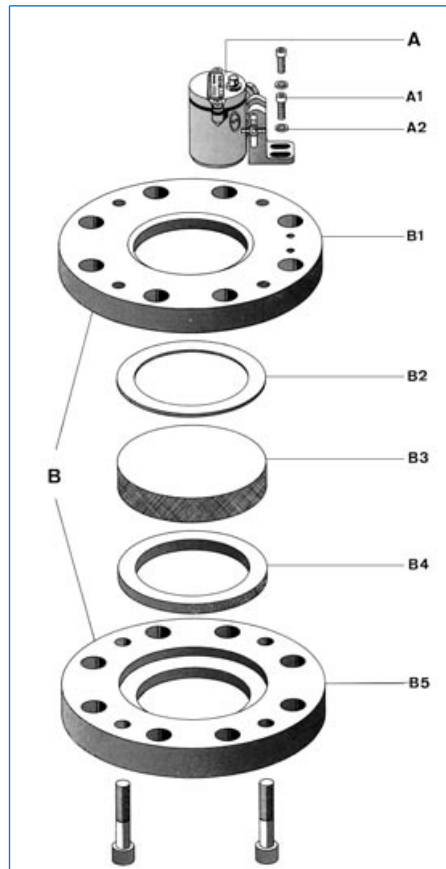
The light fittings of the series KVL are normally delivered with built-in push-button for momentaneous illumination. On demand, the types KVL 20 HD and KVL 50 HD may be ordered **without** for constant operation. For this version, the correct type designation omits the "D". If the terminal voltage of 24 V is not available, we offer single-phase transformers of open design (to IP 00) to be built into control panels or switch cabinets in various primary voltages and up to 100 W capacity ex stock. Higher wattages on demand.

## Typical assembly of a VETROLUX® sight / lightglass (standard delivery)



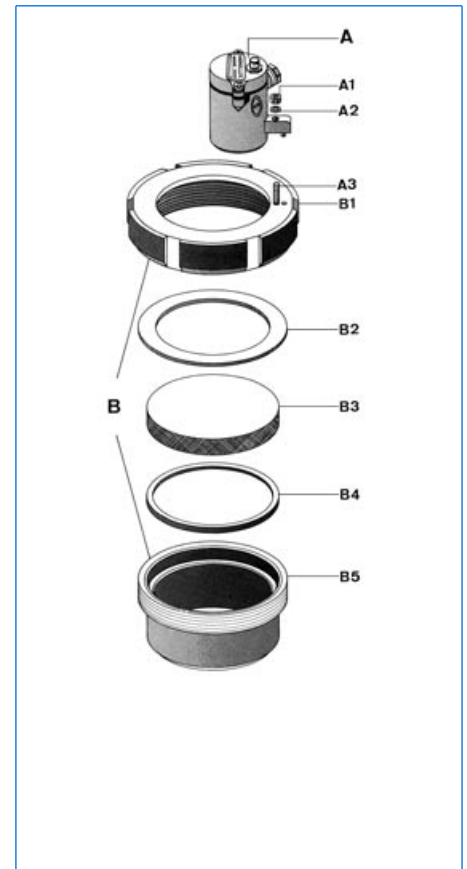
### Assembly to DIN 28120

- A Light fitting miniLUX® with built-in push-button with socket head cap screws (M6) A 1 and spring washers A 2
- B Sightglass assembly (B 1 to B 5) consisting of:
- B 1 Cover flange
  - B 2 Gasket cover side
  - B 3 Glass disc
  - B 4 Gasket product side
  - B 5 Welding flange with studs and nuts allowing the unit to be mounted



### Assembly to DIN 28121

- A Light fitting miniLUX® with built-in push-button with socket head cap screws (M6) A 1 and spring washers A 2
- B Sightglass assembly (B 1 to B 5) consisting of:
- B 1 Cover flange
  - B 2 Gasket cover side
  - B 3 Glass disc
  - B 4 Gasket product side
  - B 5 Base flange with tightening bolts
- Above sightglass unit is delivered premounted and sealed.

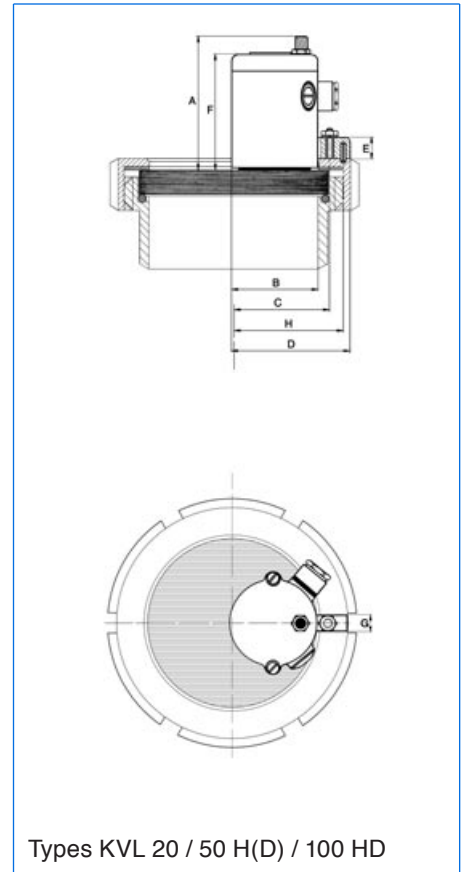
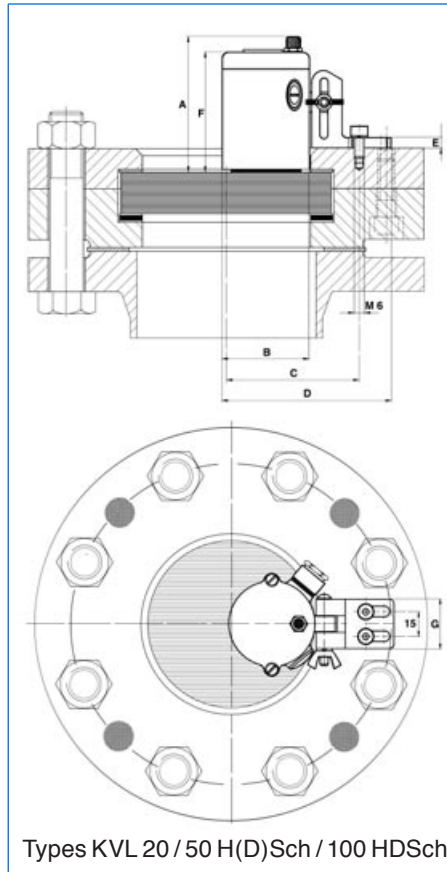
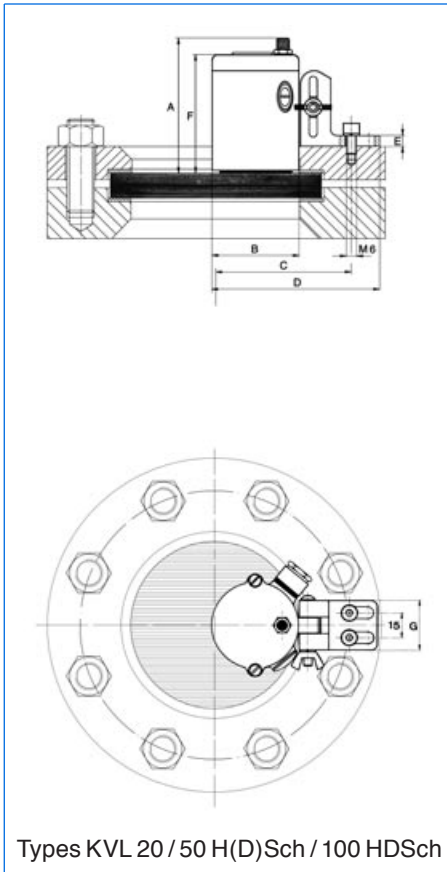


### Assembly similar to DIN 11851

- A Light fitting miniLUX® with built-in push-button, fixation nut (M4) A 1, spring washer A 2 and fixation screw (M4) A 3
- B Screwed sightglass assembly (B 1 to B 5) consisting of:
- B 1 Grooved collar nut
  - B 2 Gasket
  - B 3 Glass disc
  - B 4 Gasket product side
  - B 5 Weld neck

A light / sightglass VETROLUX® consists of a circular sightglass unit with mounted miniLUX® light fitting. Both light fitting and sightglass are available separately, but also as **complete** combined units. On demand, the sightglass units are delivered to ANSI standards or customers designs. Certificates to DIN EN 10204 may be supplied against extra charge.

The following dimensions are valid for the types KVL 20 H(D) / 50 H(D) and 100 HD (Sch)



### Sightglass to DIN 28120

DN	A	B	C	D	E	F	G
50	80	52	70	100	6	70	30
80	80	52	80	100	6	70	30
100	80	52	95	100	6	70	30
125	80	52	105	100	6	70	30
150	80	52	120	100	6	70	30
200	80	52	145	100	6	70	30

### Sightglass to DIN 28121

DN	A	B	C	D	E	F	G
50	80	52	62,5	100	6	70	30
80	80	52	70	100	6	70	30
100	80	52	80	100	6	70	30
125	80	52	90	100	6	70	30
150	80	52	90	100	6	70	30
200	80	52	105	100	6	70	30

### Sightglass similar to DIN 11851

DN	A	B	C	D	E	F	G	H
50	80	52	33	70	13	70	10	41
65	80	52	39	70	13	70	10	47
80	80	52	47	70	13	70	10	55
100	80	52	57	70	13	70	10	65
125	80	52	69	70	13	70	10	77
150	80	52	81	70	13	70	10	89

Branch office / exclusive agent:

Do you wish for more information about our wide range of light fittings for use in hazardous and safe areas, about our range of circular sightglasses to DIN 28120/28121, screwed sightglasses similar to DIN 11851, rectangular or D-ended sightglasses, pipeline flow indicators, centrally or sideways operated wipers, hinged sightglasses, spraying devices or our complete sight and light-glass units VETROLUX®? Are you interested in other types, special versions or different protection degrees? If yes, please contact us, our branch office or our local agents – it is our business! You will find the necessary indications about our sales network on the Internet.

All dimensions in mm.

Subject to changes without preliminary notice.



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