

## UV sensors for continuous operation UVD 1, UVD 2

Product brochure · GB  
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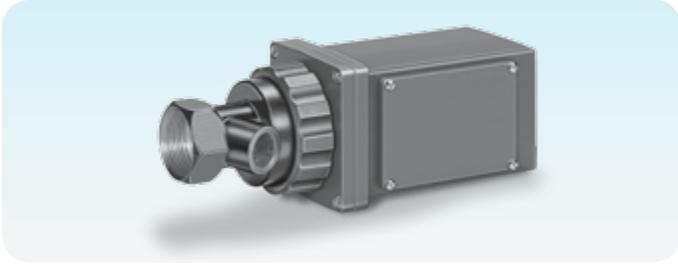


krom  
schroder



- Enhanced flexibility thanks to adjustable flame sensitivity
- Virtually immune to interference during operation due to its insensitivity to daylight, infrared radiation and incandescent bulbs
- Easy operation with LED displaying operational status
- Fail-safe software and hardware

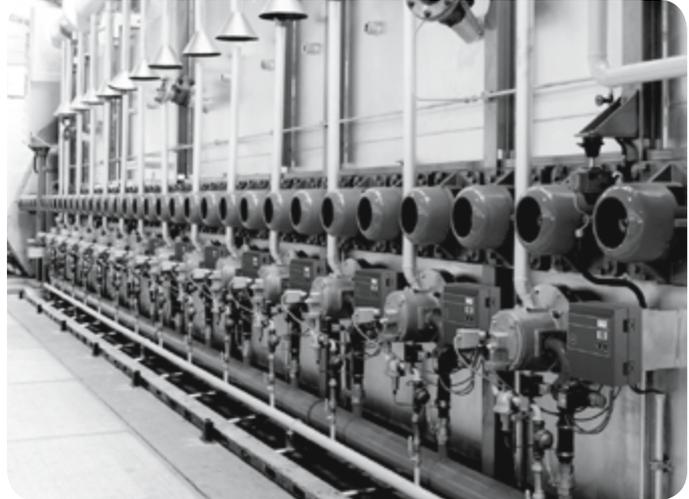
## Application



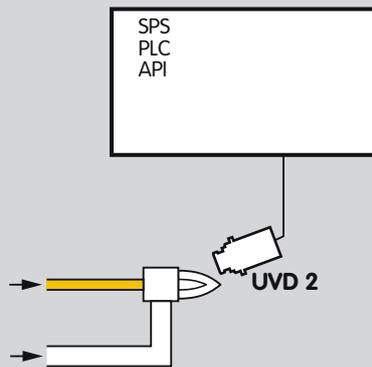
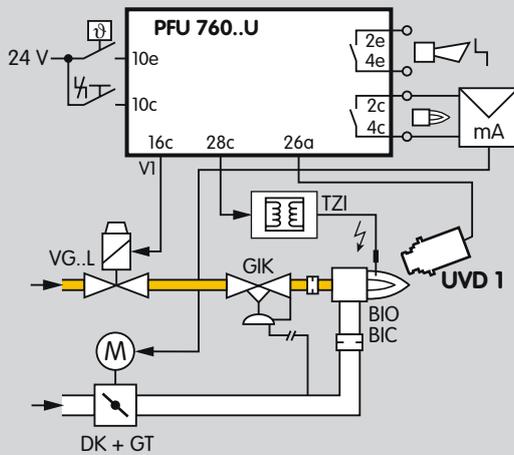
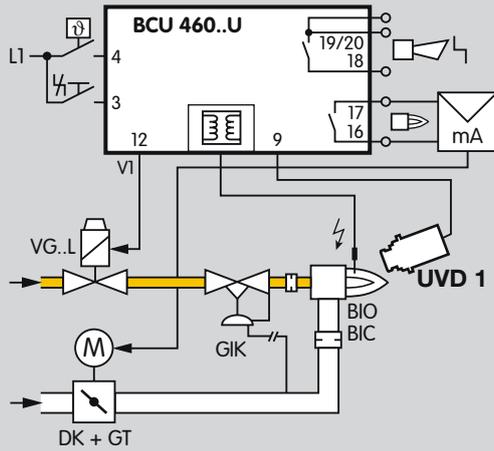
UV sensors UVD 1 and UVD 2 are used to monitor gas burners of unlimited capacity with or without a fan in continuous operation. The UV sensors can be used on hot-air furnaces, gas-fired boilers, industrial furnaces and excess-gas flaring installations. The burners can either be ignited directly or operated as pilot and main burners.

UVD 1 for flame control only in conjunction with Kromschroder burner control units BCU 370..U1, BCU 460..U, BCU 480..U, BCU 570..U0, PFU..U or automatic burner control units IFD 450, IFD 454 for continuous UV control.

UVD 2 with isolated switching contact for flame control with fail-safe, programmable logic controller in continuous operation. Not suitable for use in conjunction with Kromschroder burner control units.



*Roller hearth furnace*



### Examples of application

#### UVD 1

UVD 1 monitors gas burners in continuous operation in conjunction with burner control units BCU 370..U1, BCU 460..U, BCU 480..U, BCU 570..U0, PFU..U or automatic burner control units IFD 450, IFD 454.

#### UVD 2

If the burner is controlled by a fail-safe PLC, UVD 2 can be used for flame control. It features a switching contact which closes as soon as the UV sensor detects a flame.

## Technical data

### UVD 1, UVD 2

Spectral sensitivity: 185–260 nm.

Supply voltage:

24 V DC,  $\pm 20\%$ , approx. 5 W.

Current output: 0–20 mA,

load impedance: max. 150  $\Omega$ .

Enclosure:

IP 65 (with mounted housing cover only).

Fuses in unit:

F1: 0.315 A, slow-acting, sub miniature fuse pursuant to IEC 60127-3/4;

fuse to protect the flame signal output:

0.5 A, slow-acting, not replaceable.

Electrical connection: 1 mm<sup>2</sup>.

Viewing tube connection: Rp 1 $\frac{1}{4}$ .

Purging air connection: Rp  $\frac{1}{2}$ .

Integrated cooling air connection: Rp  $\frac{1}{2}$ .

Ambient temperature: -20 to +60°C,  
no condensation permitted.

Weight: approx. 1.8 kg.

Sensitivity: 10 adjustable settings.

Analogue output: 0–20 mA for external indication of flame intensity.

Socket (7-pin) supplied.

Maximum number of operating cycles:  
250,000.

The UV sensor has a floating circuit between the power supply circuit (24 V DC) and the device-internal voltage circuit. The current output is electrically connected to the device-internal voltage.

### UVD 1

Distance (cable length):

UVD 1–BCU 570: max. 100 m,

UVD 1–PFU 7xx, BCU 4xx or IFD 4xx:  
max. 50 m.

0–20 mA flame signal cable:

For cable lengths  $\geq 5$  m, use a distributor box from which the 0–20 mA signal is forwarded to the control room via a screened cable.

### UVD 2

Switching capacity of flame signalling contact:

Max.: 24 V DC; 0.5 A with spark suppression or  
250 V AC; 0.5 A;  $\cos \varphi = 0.4$  (inductive load),

Min.: 10 V DC or 10 V AC; 10 mA.

Safety time: 1 s.

## Maintenance cycles

Service life of the UV tube: 10,000 to 50,000 operating hours.

The UV tube with shutter unit must then be exchanged after this period.

## Detailed information on this product



<http://docuthek.kromschroeder.com/documents/index.php?folder=208040&lang=en&menuid=31&selclass=6&sellang=&topmenu=0>

## Contact

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