

# Flashing Lights 13 Joules Quadro F12 / Quadro S



### Quadro F12

- industrial successor to the legendary Eiffel Tower light
- design adapted to suit industrial requirements; mounted via concealed interior holes or external lugs; fast, flexible and secure
- outstanding mechanical strength with IP 66, IP 67 and IK 08;
- whether in the open air, in a hailstorm or when high pressure cleaning systems are used, the Quadro stays sealed and signals reliably

### Quadro S

- automatic synchronised flashing light
- a maximum of 10 flashing lights can be operated parallel and synchronously an unlimited time period; i.e. the flashes of all lights are generated simultaneously



Range as per EN 54



Protection system



Protection system



Impact-proof housing



Operating temperature



Sync



lim

| Electrical data             | Quadro F12     |                |              | Quadro S      |
|-----------------------------|----------------|----------------|--------------|---------------|
| Rated voltage               | 230 V AC       | 115 V AC       | 24 V DC      | 230 V AC      |
| Rated frequency             | 50 / 60 Hz     | 50 / 60 Hz     |              | 50 / 60 Hz    |
| Operating range             | 195 – 253 V    | 95 – 127 V     | 18 – 30 V    | 195 – 253 V   |
| Nominal current consumption | 250 mA         | 340 mA         | 700 mA       | 250 mA        |
| Initial current limited to  | < 7 A / 150 µs | < 7 A / 150 µs | < 5 A / 2 ms | < 1 A / 50 ms |

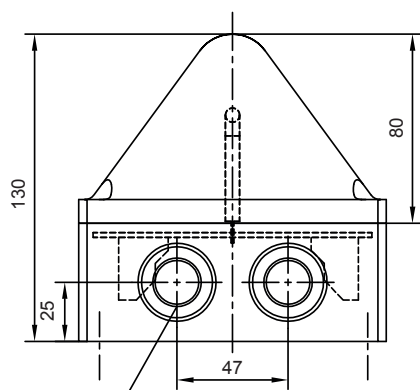
| Mechanical data                         | Quadro F12  | Quadro S                                   |
|---|---|--|
| Flash rate                              | 1 Hz = 60 flashes/min.                            |  |
| Flash energy                            | 13 J  |  |
| Light intensity (DIN 5037) <sup>1</sup> | 140 cd  |  |
| Lens colours                            | clear, white, yellow, amber, red, green, blue     |  |
| Operating temperature                   | - 40 °C ... + 55 °C                               |  |
| Storage temperature                     | - 40 °C ... + 70 °C                               |  |
| Relative humidity                       | 100%  |  |
| Protection system according to EN 60529 | IP 66, IP 67, mounting arbitrary                  |  |
| Impact resistance as per EN 50102       | IK 08   |  |
| Protection class                        | II  |  |
| Duty cycle                              | 100%  |  |
| Service life of the flash tube          | light emission still 70% after 12 000 000 flashes |  |
| Material                                | lens  | polycarbonate (PC)                         |
|   | housing   | polycarbonate (PC), RAL 7035               |
| Cable entry                             | 2 x M20 bottom side / 2 x M20/M32 sideways        | 2 x M20 sideways                           |
| Connecting terminals                    | cage clamp terminal 0.08 - 2.5 mm <sup>2</sup>    |  |
| Mounting                                | external lugs                                     | 113 x 153 mm – M5 or 127.1 x 127.1 mm – M5 |
|   | internal holes                                    | 113 x 113 mm                               |
| Weight                                  | 600 g   |  |

<sup>1</sup> with a clear lens

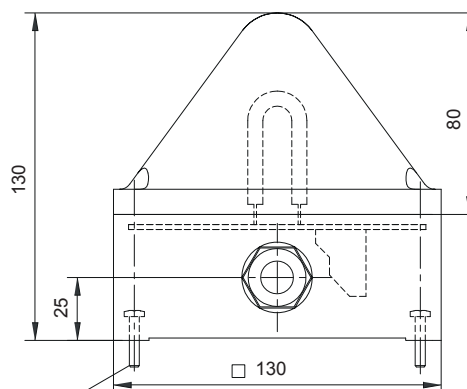
**Dimensions**

**Quadro F12**

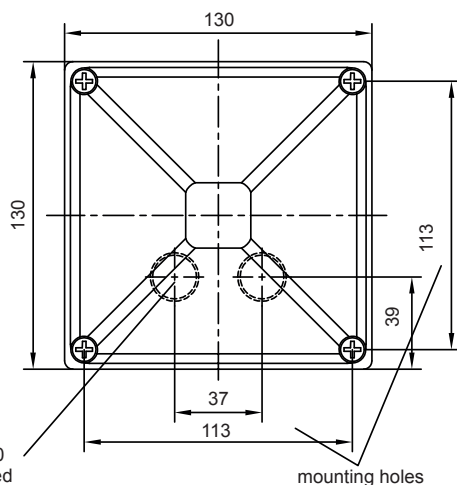
**Quadro S**



2 x M20 (M32 prepared)

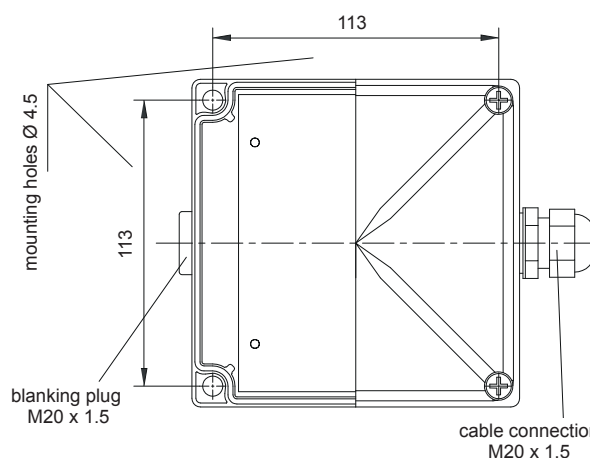


mounting screw  
e.g. 4 x M4 x 20



2 x M20 prepared

mounting holes



mounting holes Ø 4.5

blanking plug  
M20 x 1.5

cable connection  
M20 x 1.5

Additional mounting possible via external lugs (included).

**Ordering details**

| Article numbers |               | Quadro F12      |                 |                 | Quadro S        |
|-----------------|---------------|-----------------|-----------------|-----------------|-----------------|
| Lens colour     | Rated voltage | 230 V AC        | 115 V AC        | 24 V DC         | 230 V AC        |
| clear           |               | 210 41 10 1 000 | 210 41 16 1 000 | 210 41 80 1 000 | 210 42 10 1 000 |
| yellow          |               | 210 41 10 3 000 | 210 41 16 3 000 | 210 41 80 3 000 | 210 42 10 3 000 |
| amber           |               | 210 41 10 4 000 | 210 41 16 4 000 | 210 41 80 4 000 | 210 42 10 4 000 |
| red             |               | 210 41 10 5 000 | 210 41 16 5 000 | 210 41 80 5 000 | 210 42 10 5 000 |

Article numbers for other colours and voltages on request

**Options / Accessories**



**Conformity to standards**

The visual characteristics of flashing lights conform to the European standard DIN EN 842: "Machine safety - visual alarm signals". Requirements contained in the DIN EN 981 standard: "Machine safety - system of acoustic and visual alarm and information signals", can be fulfilled. The colours 'red' for the emergency signal and 'yellow' for the warning signal conform to the requirements of IEC 73 / DIN EN 60073 / VDE 0199: "Coding of display devices and control elements using colours and supplementary means".

References to visual alarm devices can be found in the following standards:  
 EN 60825-1 Radiation safety of laser devices, identical to IEC 825 and DIN-VDE 0837  
 DIN EN 54 Fire alarm systems  
 DIN 54113-2 Radiation protection regulations for the technical operation of X-ray equipment up to 500 kV