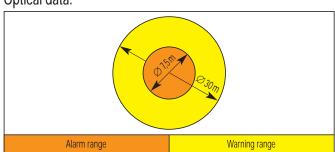
Flashing light 13 joules



Quadro F12 / Quadro S-M-Flex / Quadro RX

Optical data:



Quadro F12

- industrial successor to the famous Eiffel Tower light
- design conforms to industrial needs, the mounting can be easially achieved using either the drilling on the inside or the fixing lugs of the housing
- mechanical rigidity is superb, with real IP66, IP67 and IK08 these lights remain a reliable alarm device even under harsh conditions
- the Quadro's resistance to outdoor use, during hailstorms or even with high pressure cleaning systems guarantees it's safe functioning
- service life is extremely high: even after 12 million flashes a 70% light emission is achieved, which is the operating requirement for a safe optical warning for even the most dangerous machines such as for punching, pressing, edging

Quadro S-M-Flex

- matured tunnel security light
- synchronized flashing for up to 10 lights in series. No extra controller is needed. The initial current is kept below 1 Amp which makes it suitable for use in SPS-controlled and battery back-up systems
- variable brightness and adjustable flashing frequency
- integrated function monitor with fault message contact

Quadro R / Quadro RX

- for flash illumination for indoor and outdoor projects, even under extreme ambient conditions
- R = integrated unmediate sparkling effect
- X = black enclosure and reflection shield
- see also page 57



Protective-



Operational







IP 67

Protective-system

IK 08

Housing high impact-resistant

lim

t Quadro S-M-Flex

Quadro F 12 / S-M-Flex
160 candela
138 cd
133 cd
95 cd
22 cd
48 cd
20 cd

Quadro F12 / S-M-Flex

Flashing sequence:	1 Hz = 60 flashes/min / see table
Flashing power:	13 joules
Service life:	after 12.000.000 flashes still 70% light emission
Duty cycle:	100%

Quadro R / RX

Flashing sequence:	e: 22-28 flashes/min		
Flashing power:	10 joules		
Service life:	after 10.000.000 flashes still 70% light emission		
Duty cycle:	100%		

Mechanical data:	Quadro F12 / Quadro S-M-Flex / Quadro R / Quadro RX	
Cable gland	2 x M 20	
Clamps	2 x 2 x 2,5 mm ² (to connect through, not for R/RX)	
Weight	600 g	
Material globe	Polycarbonate PC	
Material housing	Polycarbonate (PC), RAL 7035 (RAL 3000 optional)	
Installation	mounting lugs: 113 x 153 mm – M5 or 127,1 x 127,1 mm – M5 inside holes: 113 x 113 mm	
	PCB made of fibre-glass reinforced epoxy resin for thermic and mechanical protection. PCB dip-varnished to protect against moisture. Flash tube fastened with stainless steel clamp to prevent shock and vibration.	
Standard:		
Operational temperature	−25°C+55°C	
Storage temperature	-40°C +70°C	
Relative humidity	100%	
Protective system	IP 66 IP 67 (EN 60529), IK 08, all installations	
Protective class	II	

Electrical data: AC 50 Hz / 60 Hz

Nominal voltage	Electrical data	Quadro F12	Quadro S-M-Flex	Quadro R / RX
230 V	Voltage range: Rated current: Initial current restricted to:	195 V 253 V 160 mA < 7 A / 150 µs	195 V 253 V 160 mA < 1 A / 10 ms	195 V 253 V 85 mA
115 V *	Voltage range: Rated current:	95 V 127 V 340 mA	95 V 127 V 350 mA (1 Hz / 13J)	

^{*} available on request



Nominal voltage	Electrical data	Quadro F12	
24 V	Voltage range: Rated current: Initial current restricted to:	18 V 30 V 700 mA < 5 A / 2 ms	



Mechanical data and dimensions:

Quadro S-M-Flex

Mounting screw e.g. 4 x M 4 x 20

DIP-switch setting

130

M 20 x 1,5 Plug

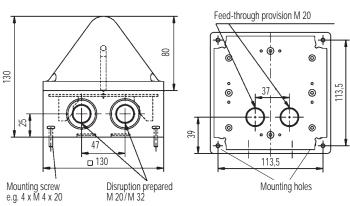
113,5

Settings for Quadro S-M-Flex

M 20 x 1,5

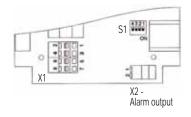
Cable gland

Quadro F12



DIP-SWITCH Setting		.ung	Settings for Quadro S-IVI-Flex		
4	3	2	1	Frequency (Hz)	Flashing energy (J)
				1	13
			ON	2	13
		ON		0,5	13
		ON	ON	0,1	13
	ON			1	7,5
	ON		ON	2	7,5
	ON	ON		0,5	7,5
	ON	ON	ON	0,1	7,5
ON				1,5	13
ON			ON	1,75	13
ON		ON		2,5	13
ON		ON	ON	0.46	13
ON	ON			0.66 25	13
ON	ON		ON	9 ds 10 g	13
ON	ON	ON		- 15- - 15-	7,5

Quadro S-M-Flex fault message contact



The Eiffeltower:
Illuminated with Pfannenberg's Quadro R



Special version:

ON

ON ON



only one flash

Adjustable brightness

Adjustable frequency

13

Approval on request:



Sample order: Model: Voltage: Globe colour: Approval: Quadro F 12 230 V AC RED GOST

Conformity to standard:

The optical properties of flashing lights comply with the European standard DIN EN 842, which is published under the title:

"Machine safety - visual alarm signals".

Requirements of the standard DIN EN 981, published under the title:

"Machine safety – system of acoustic / visual alarm signals and information signals", can be met.

The colour "red" as emergency signal and "yellow" as a warning signal comply with the requirements of IEC 73/DIN EN 60073/VDE 0199, published under the title: "Coding for display devices and control components 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 defined by IEC 825 and DIN-VDE 0837

DIN EN 54 Fire alarm systems

DIN 54113-2 Regulations for radiation protection applicable to technical operation of X-ray equipment up to 500 kV