

weber

foto-captor

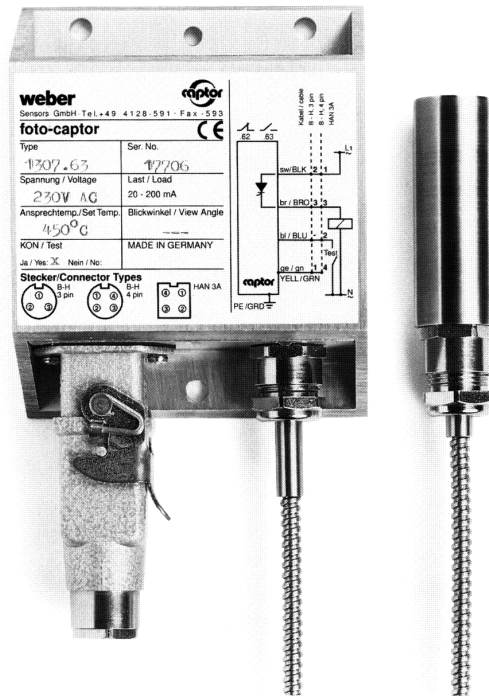
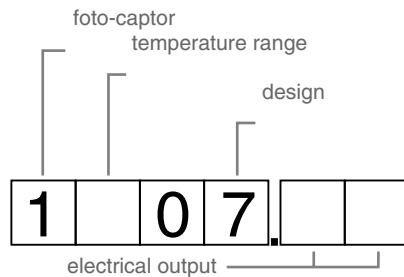


foto-captor remote version

foto-captors are available with different temperature ranges, viewing angles and electrical outputs. They are supplied with and without fiber optics, integral or remote lens systems. The "Type Code" is used to identify the part number of your desired unit.

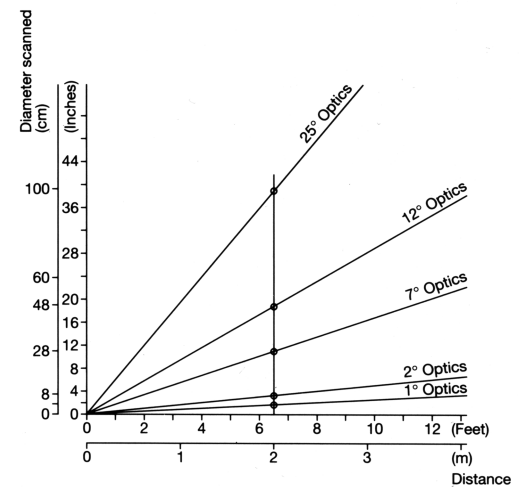
Type code



Technical Data

Type (see Type code)	12 - - - -	13 - - - -	14 - - - -
Ambient temperature	-30°C to +55°C -22F to 130F	-30°C to +75°C -22F to 165F	-30°C to +85°C -22F to 185F
Housing with or without cooling jacket	1.4541 stainless steel		
Construction	all parts & components are encapsulated		
Shock and vibration	in accordance with DIN 57.411		
Protection standard	IP65 / DIN 400 50		
Function indicator	green LED		
Overload indicator	red LED		
Electrical connection	molded armored silicone cable or connection socket		
Test function	standard for remote version		

Scanned Area at Various Distances Chart A



Temperature Response Curve Chart B

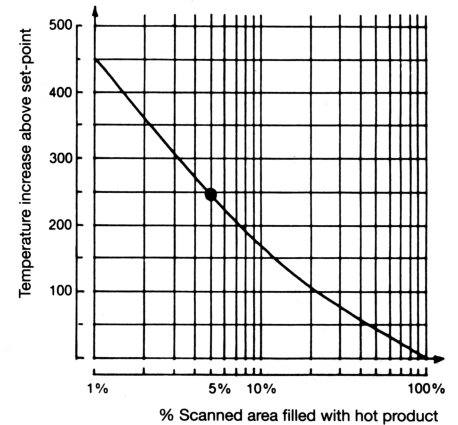


Chart B illustrates the increase in set-point temperature, required to operate the foto-captor, relative to the percentage of the scanned area containing the hot product.

Example:

foto-captor type 1301.-
 response temperature, when scanned area is covered 100% by hot product = 450 °C
 However, if only 5% of scanned area contains hot product, the foto-captor requires an additional (from chart above): 250 °C
 Set-point temperature: +450 °C
 Effective response temperature is therefore: 700 °C



foto-captor

remote version

- Interchangeable Lens and Fiber Optic Cable (FOC)
- IR Test Circuit
- Optical Test of FOC
- Simple to install
- Remote mounting of electronics

Design Features

The use of fiber optic cables enables mounting of the electronic unit at a distance from the high temperature area. This has the advantage of allowing detection of IR-radiation of hot material from close range. The following design variations are available for such cases.

Infrared Test Function

The IR test function activates a built in IR beam, thus testing the foto-captor function. This test is of special advantage where microprocessors have the test function of the foto-captor incorporated in their program.

Optical Test of Fiber Optic Cable

Because of mechanical stress it is possible, that individual fibers in the optic cable break. This results in a gradual deterioration of the signal. Utilizing the IR test function, it is possible to visually inspect the optic cable and check the individual fibers.

Set-Point Temperature

1	?	0	7		
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Type code	1	2	3	4
Min. temperature response	270 °C 520 F	350 °C 662 F	450 °C 842 F	800 °C 1470 F

Electrical Data

1		0	7	?	?
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Type code	62	63	14	15	42	43	40	41
Voltage	AC		DC					
Output Type	Thyristor		Thyristor antivalent		Optocoupler		Relay	
	N.C.	N.O.	PNP N.O. NPN N.C.	PNP N.C. NPN N.O.	N.C.	N.O.	N.C. N.O.	N.O. N.C.
Supply voltage	90-125V / 196-244V		20-27V		20-27V		20-27V	
Max. load current	200 mA		500 mA		30V / 50 mA Ri = 240		250 VAC / 30 VDC 2A resistive load	
Min. load current	20 mA		--		--		--	
Leakage current	5 mA		--		--		--	
Current consumption	--		15 mA		15 mA		15 mA	
Switching frequency	20 Hz		1,000 Hz		1,000 Hz		50 Hz	
Switching delay activation	1 ms		0.9 ms		0.5 ms		4 ms	
Switching delay release	10 ms		0.1 ms		0.1 ms		2 ms	
Trip point for overload, SCP	approx. 275 mA		approx. 600 mA		--		--	
Voltage drop	12 V		2 V		acc. to load current		--	

Test Circuit

Internal voltage supply	115V or 230V	24V	24V	24V
Current consumption	approx. 13 mA	30 mA	30 mA	30 mA

Design Variations

No.	Variant	Ambient Temperature	
1	Lens in standard housing	max. +85 °C	max. +185 F
2	Lens in special housing (e.g. 1003 H)	max. +200 °C	max. +390 F
3	Lens in housing with cooling jacket (dep. on coolant flow)max. +400 °C	max. +750 °C	max. +750 F
4	IR-Fiber Optic Cable	max. +400 °C	max. +750 F
5	Quartz Rod	max. +450 °C	max. +840 F

Fiber Optic Cable (FOC)

Length	2m (6.6 ft.)	3m (10 ft.)	4m (13.3 ft.)	5m (16.6 ft.)
Standard FOC (up to 180 °C / 370 F)	1032	1033	1034	1035
IR-FOC (up to 400 °C / 750 F)	1042	1043	1044	1045

Other length on request

Note:

Response temp, with standard FOC increases by 50 °C/m for length greater than 2m.
Response temp, with IR-FOC increases by 30 °C/m for length greater than 2m.

Quartz Rod

Length	50 mm	100 mm	150 mm	200 mm	250 mm	300 mm
Viewing Angle	12° usable					
Covered area at 50 cm (20") distance	12 cm dia.					
Ambient temperature	max. 450 °C (840 F)					

Remote Lens

Viewing angle	1°	2°	7°	1° x 7°	1° x 15°	2° x 25°	25°	½°
Scanned area in cm / inches at 2m (3.5 ft.) distance	4cmØ 1.6"Ø	8cmØ 3.2"Ø	28cmØ 11"Ø	4x28cm 1.6x11"	4x60cm 1.6x23.6"	8x100cm 3.2x39.3"	100Ø 39.3"Ø	2Ø 0.8"Ø
Lens type (up to 85 °C / 185 F) ambient temperature	1001	1002 10023	1003	1004V* S100	1004V* S102	1004V* 1004S*	1006	1008
Lens type (up to 200 °C / 392 F) ambient temperature			1003HS	10043V* HS S100				

Add type code:

K = cooling jacket

L = flange

LL = flange, Air purge

H = high temp.

HS = high temp, protection glass

S1-- = special type

V* = Vertical detection

(i.e. 7° vert., 1° horiz.) construction

S* = Horizontal detection

(i.e. 7° horiz., 1° vert.) construction

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