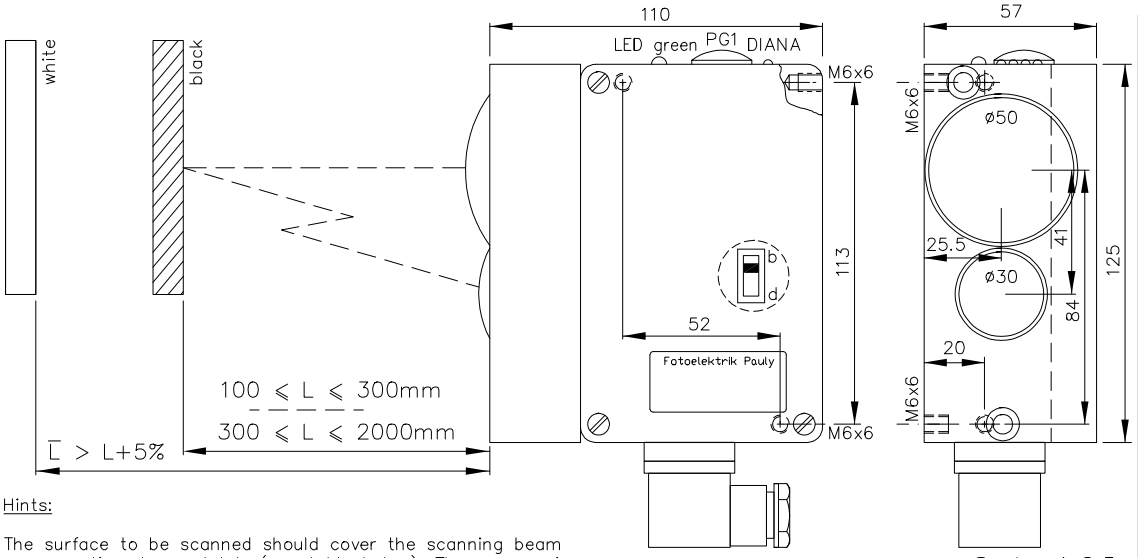
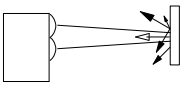
PAULY

Adjustable Reflex–Scanner with active Background Response Suppression and adjustable scanning depth Type ET103/2000





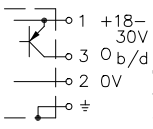
100 – 2000mm adjustable

Reflex–Scanner with active Background Response Suppression

ET103/2000

Order–no.:

1202



Connecting diagram of version: 24VDC, i, e2, stH4

Hints:

The surface to be scanned should cover the scanning beam cross section d completely (see table below). The scanner is adjusted by activating the screw located under the PG1 cover: in a clockwise direction L becomes larger. The optimum setting is found by bringing a diffuse reflecting surface (paper) into the light path, approximately in the centre between the maximum desired scanning distance L and the "forbidden" distance L̄ and then adjusting the scanner so that it turns off just at this precise point. The "forbidden" distance L̄ are in general < L+5%. Diffuse reflecting surfaces are themselves reliably recognisable under scanning beam incidence angles which sharply deviate from 90°. On reflective surfaces the scanning quality can be considerably impaired. However, reflective surfaces can still be recognised beyond the forbidden distance L̄; slightly tilting the scanner helps.
The ON (Ti) and OFF delay (Ta) is available on request. The delay times are increased by adjusting in a clockwise direction the potentiometer which is located in the housing. The adjustable time interval lies between 0 and approx. 10 seconds. Other time intervals are available on request: 1 sec., 3 sec and 20 sec..
DIANA (DIgital ANaloge Anzeige – digital analog indicator) indicates approximately 20–fold to 25–fold levels above the response threshold. It is not necessary for all DIANA LEDs to light up in order for the light barrier to function perfectly! Beyond the switching range (green off), the DIANA may show the level under the switching threshold.

Technical Characteristics of the minimum version:

Housing	Al–Cast
Weight	approx. 1000g
Protection mode	IP65
Connection	3+1 pin Plug stH4
Supply	24VDC/40mA without load
Output	pnp 60mA s.c.–prot., e2
Signal mode	bright–/darkswitching selectable
Transmitter light	GaAs 880nm, invisible
Steady light Resist.	>80kLx
Interference Suppress.	forced synchronization
Access time	<12ms/switch transition
Switching frequency	40/s
Switch indicator	LED green
Level indicator	DIANA, i
Ambient temperatur	–30...+65°C

Options:

Connection	4–pin plug stLU4
	6+1 pin plug stH7
	3+1 wire no.–cable K4
Output	npn 60mA s.c.–prot., e3
	Optocoupler 60V/50mA, e1
	also: 2xe2/2xe3 or antival. e4/e5
Access Time	"q": <2ms/switch transition
Switching frequency	"q": 300/s
Time delay	0–3s, switching–on–off–delay, separately adjustable, z3

Heat–protected optical system, pl
If using cooling water flange, then milled wall, y

Accessories:

Diaphragms, special filters
Furnace window 02004/100
Cooling water flange KW26
Heavy adjustment flange R26SH
Stauff–clamp adaptor AD26SS1 resp. AD26SS2

L/mm	L̄/mm	ø/mm
100–300	305	15
100–500	508	20
150–800	810	30
200–1000	1015	35
250–1500	1530	50
300–2000	2080	60
(350–3000)	(3400)	(75)

L: Working range on black
L̄: "forbidden" distance on white
ø: Light beam dia. (only approximate values)

1202 DE E_ 1202 1 (08.04.97 tb) (15.05.02 gs) (29.11.04 mj) (09.12.04 tb) 26.01.09 tb