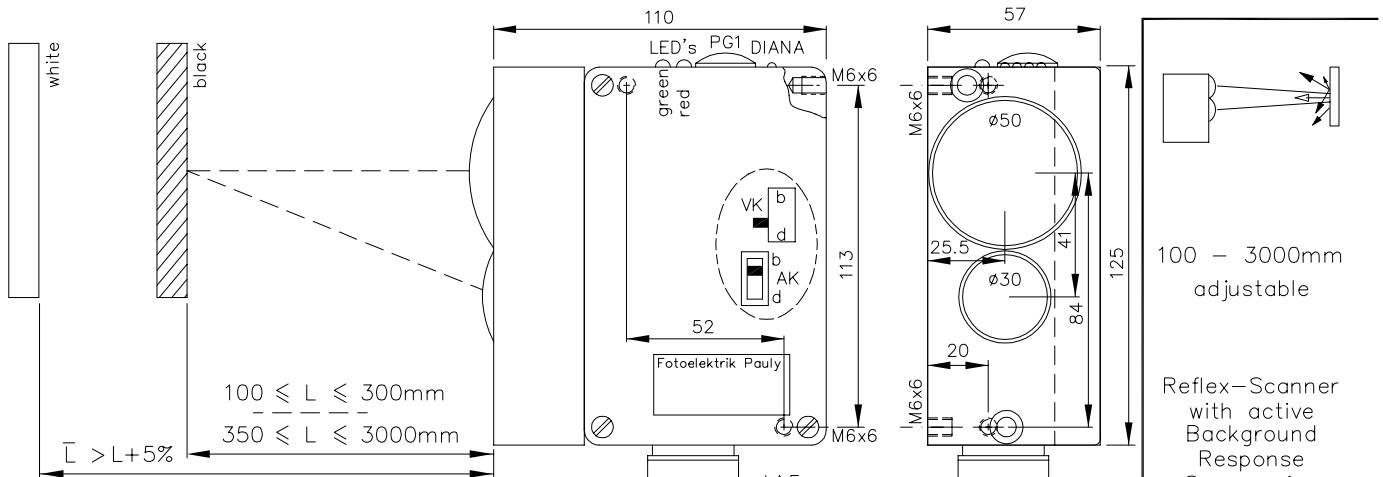


## Reflex-Scanner with active Background Response Suppression, Pollution

### Warning Output and adjustable scanning depth Type ET103/2000V



**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  $\bar{L}$  and then adjusting the scanner so that it turns off just at this precise point. The "forbidden" distance  $\bar{L}$  are in general  $\bar{L} < L + 5\%$ . 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  $\bar{L}$ ; slightly tilting the scanner helps.

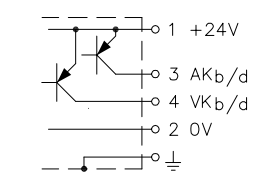
The ON (Ti) and OFF delay (Ta) is available on request. The delay times are increased by adjusting in a clockwise direction the potentiometer which is located in the housing. The adjustable time interval lies between 0 and approx. 10 seconds. Other time intervals are available on request: 1 sec., 3 sec. 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.

The green LED always lights up when sufficient light is received. If no more than the 5-fold light quantity required to trigger the switching procedure is received, the red LED lights up and the corresponding output is actuated. \*E\_1202 1 v.TXT\*

**Technical Characteristics of the minimum version:**

Housing	Al-Cast
Weight	approx. 1000g
Protection mode	IP65
Connection	4+1 pin Plug stA5
Supply	24VDC/60mA without load
Output	nnp 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 (AK); red (VK)
Level indicator	DIANA, i
Ambient temperatur	-30...+65°C



Scale: 1: 2.5  
Connecting diagram of version: 24VDC, i, e2, stA5

**Options:**

- Connection: 4 pin plug stLU4, 6+1 pin plug stA7, 6+1 pin plug stH7, 4+1 wire no.-cable K5
- Output: npn 60mA s.c.-prot., e3, Optocoupler 60V/50mA, e1
- Access time: "q": <2ms/switch transition
- Switching frequency: "q": 300/s
- Time delay: 0-3s, switching-on-off-delay, separately adjustable, z3 (only AK)
- 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	$\bar{L}$ /mm	$\phi$ /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  
 $\bar{L}$ : "forbidden" distance on white  
 $\phi$ : Light beam dia.  
 (only approximate values)

1202V DE 18.02.05 mj  
E\_1202 1 v (14.01.03 gs) (29.11.04 m)