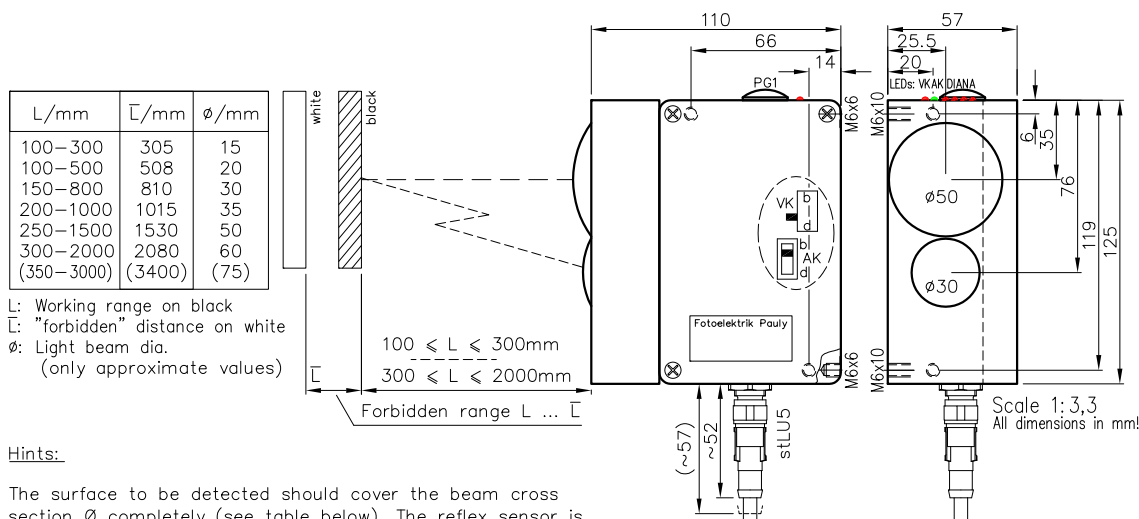


## Adjustable Diffuse-Reflective Sensor with active Background Response Suppression and Pollution Warning Output, Type ET103/2000v



100 ... 2000mm adjustable

Adjustable Diffuse-Reflective Sensor with active Background Response Suppression and Pollution Warning

ET103/2000v

Order no.: 1202V

**Hints:**

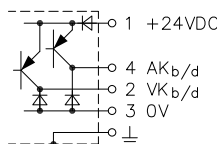
The surface to be detected should cover the beam cross section ∅ completely (see table below). The reflex sensor is adjusted by activating the screw located behind the PG1 cover. In a clockwise direction L becomes larger. The optimum setting is found by bringing a diffuse Reflective surface (paper) into the light path. Approximately in the center between the maximum desired detection distance L and the "forbidden" distance ⌈ and then adjusting the reflex sensor so that it turns off just at this precise point. The "forbidden" distance ⌈ are in general < L+5%. Diffuse Reflective surfaces are themselves reliably recognizable under beam incidence angles which sharply deviate from 90°. On reflective surfaces the detection quality can be considerably impaired. However, reflective surfaces can still be recognized beyond the forbidden distance ⌈; slightly tilting the detection helps. The ON (Ti) and OFF delay (Ta) is available on request. The delay time is increasable by adjusting the potentiometer in a clockwise direction. The potentiometer is located inside the housing. The adjustable time interval lies between 0 and approximately 3 seconds. Other time intervals are available on request: 1 second, 10 second and 20 second.

DIANA (Digital ANALoge Anzeige -digital analog indicator) indicates approximately 20-fold levels above the response threshold. It is not necessary that all DIANA LEDs light up in order for a proper function of the reflex sensor! Beyond the switching range (green off), the DIANA may show the level under the switching threshold. The green LED (AK) 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 (VK) lights up and the corresponding output is actuated.

**Technical characteristics:**

Housing	Al-Cast
Weight	approx. 1000g
Protection mode	IP65
Connection	4+1 pin Plug stLU5
Supply	24VDC/60mA without load
Output	pnp 60mA s.c.-prot., e2
Signal mode	bright-/darkswitching, selectable
Transmitter light	850...880nm, invisible
Steady light Resist.	>80kLx
Interference Suppress.	Force synchronization
Access time	<12ms/switch transition
Switching rate	40/s
Switch indicator	LED green (AK); red (VK)
Level indicator	4x LED red (DIANA, i)
Ambient temperatur	-30...+65°C

**Connecting diagram:**



**Features:**

- Connection: 6+1 pin plug stBI7
- 4+1 wire no.-cable K5
- Output: npn 60mA s.c.-prot., e3
- Optocoupler 60V/50mA, e1
- Access time: "q": <2ms/switch transition
- Switching rate: "q": 300/s
- Time delay: 0-3s, switching-on-off-delay, separately adjustable, z3 (only AK)
- Heat protected transducer system, pl
- If using cooling water flange, then milled wall, y

**Accessories:**

- Diaphragms
- Optical filters
- Furnace window 02004/100
- Cooling water flange KW26
- Heavy adjustment flange R26SH
- Elbow tube adjustment AD26SS1 or AD26SS2

1202V DE (09.12.04 tb) (14.05.14 tb)  
 E\_1202 1 v (26.01.09 tb) (06.02.17 tb)  
 (14.01.03 gs) (19.06.12 tb) 08.12.17 tb  
 (29.11.04 m) (08.05.14 tb)