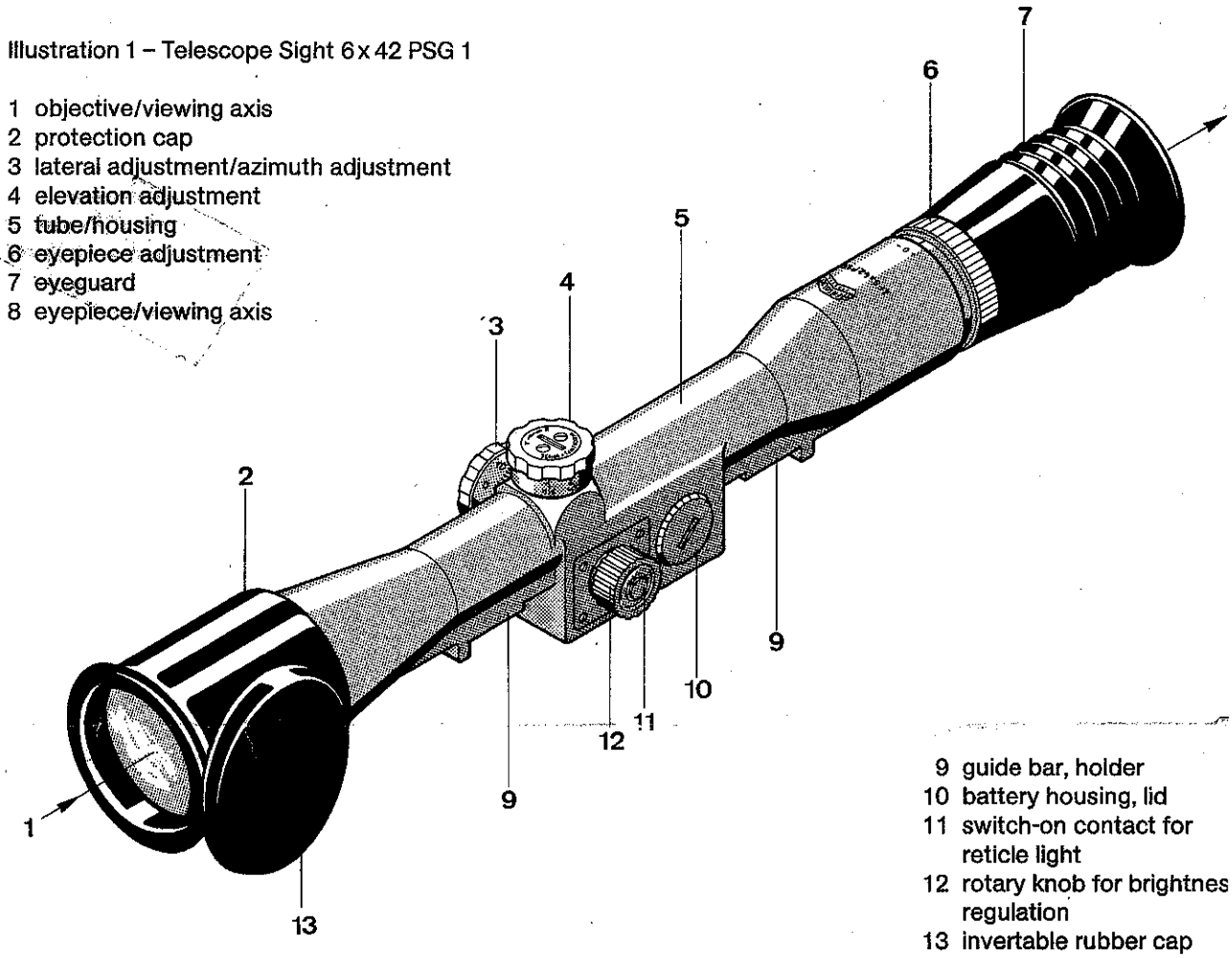
HENSOLDT WETZLAR Optische Werke AG

Zeiss-Group West Germany

Data Sheet 33 01 24 **TELESCOPE SIGHT 6 x 42 PSG 1**

Illustration 1 – Telescope Sight 6 x 42 PSG 1

1 objective/viewing axis
2 protection cap
3 lateral adjustment/azimuth adjustment
4 elevation adjustment
5 tube/housing
6 eyepiece adjustment
7 eyeguard
8 eyepiece/viewing axis




9 guide bar, holder
10 battery housing, lid
11 switch-on contact for reticle light
12 rotary knob for brightnes regulation
13 invertable rubber cap

**Short designation** ZF 6 x 42 PSG 1
**Drwg.-No.** 33 01 24-0000.000

**Purpose**

The telescope sight is intended for use with a sniper rifle, e.a. PSG 1. It serves the gunner for targeting and aiming and also allows target observation at greater distances. The maximum adjustable shooting distance is 600 m.

**Measurements**

| | |
|---|---|
| Length with cap and eyeguard | 390 mm |
| Diameter (cap) | 56 mm |
| Height | 130 mm |

**Weight**

| | |
|---|---|
| Telescope Sight | 602 g |

**Optical Data**

| | |
|---|---|
| Telescope magnification (V) | 6 |
| Entrance pupil (EP) | 42 mr |
| Exit pupil (AP) | 7 mr |
| Eye relief | 70 mr |
| Field of view angle | 4 |
| Field of view at 100 m | 7 r |
| Diopter setting | ± 2 dp |
| Optical length (l) | 309 mr |
| Superelevation angle adjustment stops from | 100 m to 600 r |
| Lateral adjustment stops every 0,1° | ± 2,5 |

**Other Data**

| | |
|---|---|
| Reticle light | adjustabl |
| Illumination period | approx. 2 mir |
| Batteries/button cell column | 3/60 DK VART |

**Short Description**

The **ZF 6 x 42 PSG 1** is a monobjective/monocular telescope sight with a lens erecting system and 6 power magnification. The superelevation angle is adjustable for shooting distances from 100 m to 600 m.

All air – glass surfaces of the optical components (except the reticle) are coated with a wipe-proof reflection reducing coating. The telescope sight is so well sealed that even during sudden temperature changes and spray-water influences it remains usable.

The ZF 6 x 42 PSG 1 consist of:

(1) **tube** (1/5) with the **objective** (2/1), **elevation adjustment** (1/4) for range and elevation adjustment, **lateral adjustment** (1/3) for adjustment of the lead angle and for azimuth adjustment, **reticle** (2/2) with the reticle pattern (Illustration 3) in the first image plane, **lens erecting system** (2/3) and **guide bars** (1/9) acc. to STANAG 2324 for mounting the ZF 6 x 42 PSG 1 to rifle.

(2) **reticle light** with **contact** (1/11) for switching on a luminous diode (the two minute luminating period of which is defined by an electronic timing circuit), **rotary knob** (1/12) for regulating brightness of the luminous diode, **battery housing** (1/10) for the screwable **lid** (1/10) for locking battery housing.

(3) **eyepiece** (1/8) with the two **eyepiece lenses** (2/4) and the **eyeguard** (1/7).

(4) **protection cap** (1/2) for protection of the tube with invertable **rubber cap** (1/13), which can be closed to protect objective (1/1), when the telescope sight 6 x 42 PSG 1 is not in use.

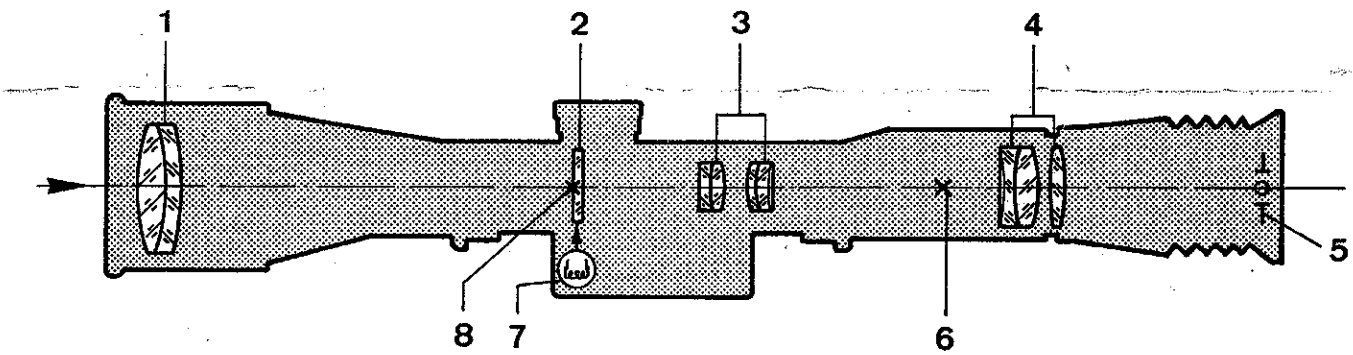



Illustration 2 – Optical Structure

1 objective
2 reticle
3 erecting system
4 eyepiece
5 exit pupil
6 second image plane
7 instrument light
8 first image plane (reticle plane)

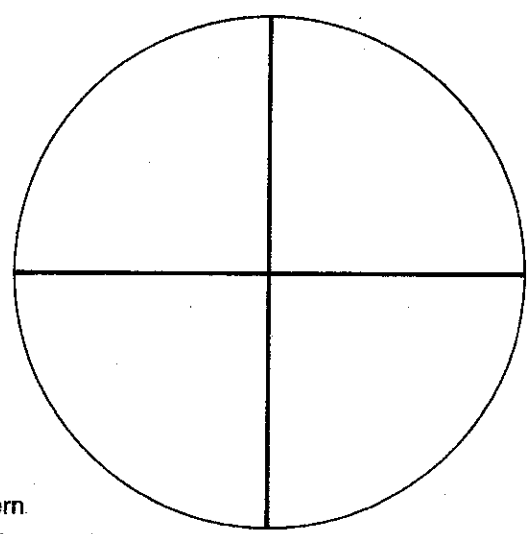


Illustration 3 – Reticle Pattern