


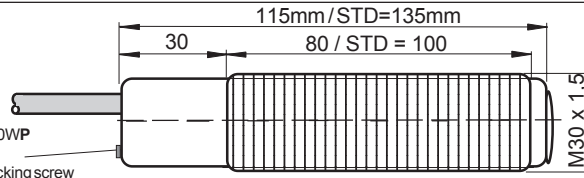

**1258 Flashlight Sources, models STS/STN/STD-60W, STS/STN/STD-60WP**

 II 2G Ex d IIC T6 Gb  
 II 2D Ex tb IIIB T100°C Db IP67  
 or  
 II 3G Ex nA IIB T4 Gc  
 II 3D Ex tc IIIA T135°C Dc IP67

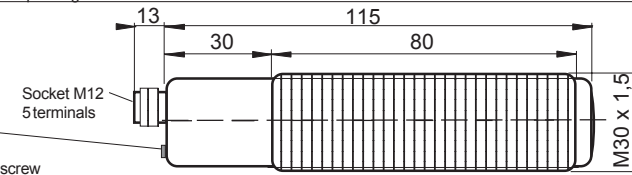
- Semiconductor flashlight source with high reliability
- Type STD-60W: Applicable in Ex zones 1, 2, 21, 22
- Type STN-60W: Applicable in Ex zones 2, 22

| Technical data                            | Type   |  |                  |
|---|--|--|------------------|
|   | STD-60W-2GD  | STN-60W-3GD                                | STS-60W          |
| Type of Ex protection, Gas, at 2014/34/EU | Applicable in Ex zones II 2 G Ex d IIC T6  | Applicable in Ex zones II 3 G Ex nA IIB T4 | NOT for Ex zones |
| Type of Ex protection, Dust at 2014/34/EU | II 2D Ex tb IIIB T100°C Db IP67  | II 3D Ex tc IIIA T135°C Dc IP67            | None             |
| Applicable in Ex zones                    | 1, 2, 21, 22   | 2, 22                                      | None             |
| Flash frequency                           | 70Hz / STx-60WP: 10Hz bis 100Hz  |  |                  |
| Flash turn-on time                        | 0.3ms  |  |                  |
| Dye Color                                 | daylight white   |  |                  |
| Color temperature                         | 4000K  |  |                  |
| Luminous flux                             | 46lm   | 46lm                                       | 60lm             |
| Optical beam angle                        | 23°  |  |                  |
| Supply voltage                            | 24VDC +-10%  |  |                  |
| Absolute maximum supply voltage Um        | --   | 30VDC                                      | --               |
| Current consumption                       | 15mA   |  |                  |
| Maximum power dissipation                 | 0.45W  |  |                  |
| Working temperature range Tamb            | -20°C < Tamb < +50°C   |  |                  |
| Storage temperature range                 | -20°C ... +70°C  |  |                  |
| Relative humidity                         | 15% ... 90%, noncondensing   |  |                  |
| Pollution degree, at EN 60664-1:2007      | 3  |  |                  |
| Housing                                   | brass, nickel plated, M30 x 115mm  |  |                  |
| Enclosure rating at EN 60529              | IP67   | IP67                                       | IP65             |
| Connecting cable                          | 2+PE x 0,5mm <sup>2</sup> , TPU, shielded, leads numbering marked, length: 3m  |  |                  |
| Socket, series STS/STN-60W-S099           | male socket M12, Lumberg RSF 5, 5 terminals  |  |                  |
| Accessories, all types                    | - 2 x nuts M30 (or 1 clamp optional)   |  |                  |
| Accessories, only type STN-60W-S099       | - 1x Safety lock device, mount at the cable connection, for locking the connection. (black synthetic device)<br>- 1x Warning plate "Do not open/close when supply voltage connected", self-sealing, for gluing on the cable connector.<br>- 1x Protection cap for the sensor socket. |  |                  |
| Accessories, included, only STD/STN-60WP  | - 1x Spare safety screw with packing ring for potentiometer sealing  |  |                  |
| Accessories, not included                 | - Single ended cordset, Lumberg M12, RKTS 5-298/xx or RKWTH 5-298/xx   |  |                  |
| Options                                   | - STx-60WP: With potentiometer for frequency adjustment, 10Hz to 100Hz<br>- STS/STN-60W-S099: With male socket M12, type RSF 5<br>- STN-60WP-S099: With male socket M12, type RSF 5 and potentiometer<br>- STN-60WP-S222: Enclosure rating IP68, pressure waterproof 8bar            |  |                  |

ATEX related markings:  CE 1258. Manufacturer with address. Electrical data according to the chart  
 Types STD: II 2G Ex d IIC T6 Gb, II 2D Ex tb IIIB T100°C Db IP67. Types STN: II 3G Ex nA IIB T4 Gc, II 3D Ex tc IIIA T135°C Dc IP67  
 Types STD: EC-Type Examination Certification: BVS 10 ATEX E 130 X. Types STN: Declaration by manufacturer, at ATEX serial number 2014/34/EU  
 Tamb: -20°C < Tamb < +50°C. Date of construction: Numeral 5 to 8 of the serial number (Year/Week)

 Dimensions,  
 Wiring diagram  
 STD/STN/STS-60W  
 Cable


|               |              |              |
|---------------|--------------|--------------|
| +24VDC:       | 1            | 1/brown      |
| 0V:           | 2            | 2/blue       |
| PE:           | yellow-green | yellow-green |
| Cable shield: | white        | white        |

 Dimensions,  
 Wiring diagram  
 STN/STS-60W-S099  
 Socket M12


|         |                 |
|---------|-----------------|
| 1/brown | STN/STS-60W S99 |
| 2/white | +24VDC          |
| 3/blue  | NC              |
| 4/black | 0V              |
| 5/grey  | NC              |
|         | FE              |

**Operating Manual / EC - Declaration of Conformity:**
**Special mounting prescriptions for Ex protection**

It is necessary to take into consideration the valid international and national rules and regulations (EN 60079-14). The maximum ratings must not be exceeded. The local equipotential bonding have to be done reliable and noncorrosive coercive. The PE/PA terminal is solid connected to the housing. The cable have to be installed and protected against damages. The cable with termination fittings, or in cable tray systems and installed in a manner to avoid tensile stress at the termination fittings. To connect cables inside hazardous locations only use certificated Ex housings. All cable terminals must be connected outside hazardous locations. Other than original manufacturer, additional optical components are not allowed in hazardous locations. In Ex zones 21 and 22, do not operate the sensors without fixed dustproof sealing crew of the potentiometer. After adjust the potentiometer, the dustproof sealing screw with undamaged packing ring, must be screwed down. Damaged or lost screws or packing rings must be replaced. The maximum rated supply voltage Um = 30VDC must not be exceeded.

**Types STD-60W(P)-2GD:** Only applicable in Ex zones 1, 2 and 21, 22.

**Types STN-60W(P)-3GD:** Only applicable in Ex zones 2 and 22.

**Type STN-60W(P)-3GD-S099:** Only applicable in Ex zones 2 and 22. Do not separate the connector when the supply voltage is connected to the cable. When installing the sensor, the safety lock device must be fitted at the cable connector. The additional adhesive warning label must be fixed to the connector housing at the connection cable. Lumberg cordsets RKTS 5-298/xx (Straight type) or RKWTH 5-298/xx (Right angle type) are allowed ONLY. It is necessary to take into consideration the mounting prescription of the connector manufacturer. In dusty locations, the protection cap for the socket must be fitted, when the connection cable is NOT connected.

**Maintenance**

The flashlight sources are maintenance-free. Keep the lens clear and fat free. Equipment must only be repaired or serviced by the manufacturer.

**General safety instructions**

Series STN-60W(P)-S099: "WARNING - EXPLOSION HAZARD - WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES. DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN

SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS". The mounting of the sensor in dusty locations without fixed cordset or protection cap results in a high ignition risk. The sensors must not be used for Accident-Prevention! In worst case the output can change to any state! When installing and operating with the sensor, it is necessary to take into consideration the relevant international and other national regulations: EN 60079-14, ATEX 118a, single directive 1999/92/EC.

Standards met: EN 60079-0:2009, EN 60079-1:2007, EN 60079-15:2010, EN 60079-31:2010, EN 60529:2000, EN 60950-1:2006; EN 61000-4-2 to EN 61000-4-6, EN 61000-6-1/-2, EN 61000-6-4. ATEX directive: 2014/34/EU, Machine directive: 2006/42/EC, EMC directive: 2004/108/EC, RoHS directive: 2011/65/EU.

**General Notes, disposal**

We reserve the right to modify our equipment. Our equipment is designed such way, that it has the least possible adverse effect on the environment. It neither emit or contain any damaging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations.

**WARNING**

Avoid looking directly into the light beam for long periods of time. Visual disturbances and epileptic seizures are possible under certain circumstances.

**EC-Declaration of conformity**

ATEX certification, types STD: II 2G Ex d IIC T6 Gb, II 2D Ex tb IIIB T100°C Db IP67. Certification No. BVS 10 ATEX E 130 X, DEKRA EXAM GmbH, Zertifizierungsstelle, Carl-Beyling-Haus, Dinendahlstrasse 9, D-44809 Bochum, Kennnummer: 0158. ATEX certification, types STN: II 3G Ex nA IIB T4 Gc, II 3D Ex tc IIIA T135°C Dc IP67. ATEX certification of quality type production of Ex devices at the directive 2014/34/EU, CE 1258, Eurofins. Certification No: SEV 21 ATEX 4580. The conformity of the devices with the EC standards and directives and the EC-type examination certificate and the observation of the Quality Safety System ISO 9001:2015 with the ATEX module "Production", declares:

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STX-60W-2GD-3GD\_e14/2022-08-10/MP