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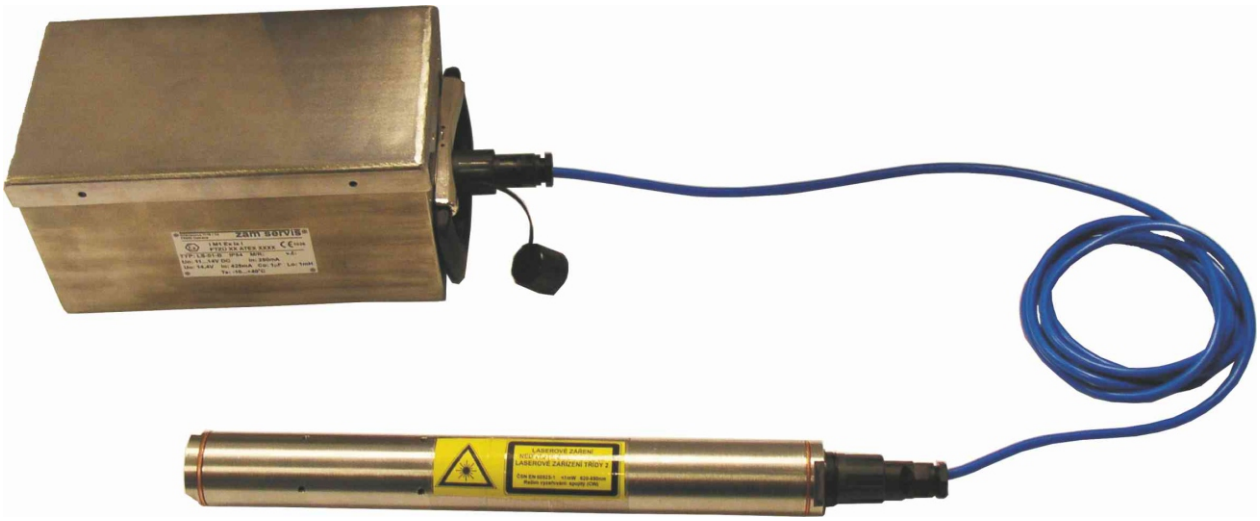
# LS-01 – Stationary Laser Stake out Device

**Certificate: ATEX**



**Use:**
The intrinsically safe LS-01 laser serves for staking out, surveying and defining a direction at driving galleries in the mining industry. A robust model of the device enables a trouble-free operation in difficult work conditions at underground workplaces. The device is only intended for use in an environment with an explosion hazard in mines.

**Description:**
The intrinsically safe LS-01 laser consists of an external tube with a front glass and a rear connector, where an inner tube is inserted with a laser beam source, focusing optics and supply circuit.

It is supplied from the direct (intrinsically safe) voltage of 11-25 V, the maximum current consumption of LS-01 is 60 mA. A LS-01-B battery is supplied as a source with a LS-01-K connecting cable.

The laser beam output is independent of the supply voltage and temperature and is factory-set at the value of 0.9 mW. This laser device is classified as a Class 2 laser according to ČSN EN 60825-1. The laser wave length is typically 635 nm (red).


**Technical Parameters:**

Laser LS-01

| | |
|---|---|
| Model | I M1 Ex ia I |
| Supply voltage | 11 - 25V DC |
| Maximum current | 60mA |
| Laser output | 0.5 to 0.9mW |
| Laser class according to ČSN EN 60825-1 | Class 2 |
| Typical laser wave length | 635nm |
| Beam divergence | < 2 mrad |
| Beam diameter in the beginning | cca 10 mm |
| Beam diameter at the distance of 100 m | ≤40 mm |
| Maximum beam range | 300 m, depends on weather conditions |
| Radiation mode | continuous (CW) |
| LS-01-K cable length | 2.5 m |
| Ambient temperature | - 10°C - + 40°C |
| Relative humidity | max. of 95% without cond. |
| Protection | IP 54 |
| Dimensions | ϕ 38 x 334 mm |
| Weight | cca 1.5 kg |

LS-01-B Supply Source

| | |
|---|---|
| Model | I M1 Ex ia I |
| Supply voltage | 11 - 14 V DC |
| Maximum output current | 250 mA |
| Battery capacity | 10 Ah |
| Ambient temperature | - 10°C - + 40°C |
| Relative humidity | max. of 95% without cond. |
| Protection | IP54 |
| Dimensions | 240x128x116mm |
| Weight | 7.5kg |

**The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.**



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