TEDEG

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T-Light Programmable Warning Unit

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T-Light

Programmable Warning Unit

The T-Light Programmable Warning Unit is a sophisticated audible and visual warning solution engineered to deliver dependable performance in challenging outdoor environments, accommodating both RS-485 and CAN-Bus communication protocols. Its IP68-rated metal housing ensures comprehensive protection against dust and moisture, allowing the system to function seamlessly in all weather conditions. Featuring multi-colored LEDs and adjustable audible alerts, T-Light provides users with a highly customizable warning mechanism. Regardless of the preferred communication infrastructure, the system can be effortlessly programmed; color, sound level, and operating mode can be dynamically adjusted based on the messages. The Blackout mode enhances operational confidentiality, particularly in military and security contexts, by permitting the deactivation of all warnings when required. With its durable construction, straightforward installation options, and extensive scenario support, T-Light represents an optimal choice for enhancing security and situational awareness across a diverse range of platforms.

Mechanical Properties

- **Case Material:** High-strength 6000-series die-cast aluminum, electrostatically powder-coated, offering exceptional resistance to corrosion and impact.
- **Protection Class:** IP68 – Resistant to dust ingress and immersion in water up to 1 meter for 60 minutes.
- **Dimensions:** Ø110 mm × 65 mm (excluding connector); the compact design facilitates installation in confined areas.
- **Weight:** 480 g ± 50 g.
- **Mechanical Strength:**
  - Work: ⩾ 20 J (IEC 60068-2-75)
  - Vibration: 5 – 2000 Hz, 7.7 grms, MIL-STD-810H 514.8 Category 24
  - Shock: MIL-STD-810H 516.8, Method I, 40 g / 11 ms
- **Operating Temperature:** –32 °C to +55 °C (operational); storage range –40 °C to +70 °C.
- **Mounting Alternatives:**
  - Surface or flange mount utilizing M4 bolts
  - Clamp adapter (optional)
- **Connection Interface:** Military-grade PT02E-10-6P connector;
- O-ring sealing mechanism.
- **Surface Finish:** MIL-DTL-5541E Class 1A chromate coating combined with a 70 µm polyester powder coating; standard NATO green, with an optional RAL 9005 matte black.
- **Labelling:** Laser marking of product codes, serial numbers, and QR codes; permanent and resistant to chemicals.
- **Thermal Management:** Passive cooling; aluminum chassis engineered as a heat sink, eliminating the need for an external fan.

The T-Light Programmable Warning Unit is a durable and customizable solution that integrates audible and visual alerts necessary for industrial and military applications, along with intelligent scenario management. This product is available in two distinct models that operate using either the RS-485 or CAN-Bus protocol. The desired communication infrastructure must be indicated at the time of ordering, and production will be tailored accordingly. Field changes to the protocol are not feasible.

- **Multicolored LED Notifications**

Offers LED color options of red, yellow, green, blue, and purple (optional). Colors can be set to either steady or flashing modes.

  - Green: Standard operational status
  - Yellow: Caution or circumstance necessitating attention
  - Red: Critical alert / emergency

- **Adjustable Audio Alert**

Audio warnings can be tailored to specific requirements with a three-tier sound level (low, medium, high), delivering a maximum output of 110 dB. If preferred, the audio warning may be deactivated, allowing for operation solely through visual alerts.

- **Blackout Mode**

LED lights and audible alerts are entirely deactivated, creating a "silent" operational mode that remains undetectable externally. This capability is particularly crucial for maintaining operational secrecy in military contexts.

- **Scenario-Based Programmability**

The device is capable of altering the light color, flashing mode, and audible warning behavior in accordance with the commands from the connected control system. This facilitates seamless integration with sensors, PLCs, or central management systems.

- **Testing and Diagnostic Functions**

By transmitting manual test commands through the communication protocol, the audio-visual functions of the device can be validated. Furthermore, system data, including connection status and the most recently received command, can be retrieved.

Technical Specifications

Feature	Value / Description
Protection Level	16-32VDC
Input Voltage	IP68 (Complete protection against water and dust)
Current Employment	Nominal: 50 mA at 24 VDC
	Warning Status: 400 mA at 24 VDC
Audio Alert Level	Maximum 110 dB (Volume adjustable)
LED Light Colors	Red, Yellow, Green, Blue, Purple (Optional)
Material	High-strength aluminum chassis (durable against impacts and abrasion)
Weigh	480 g ± 50 g
Operating Temperature	-32°C to +55°C
Mounting Alternatives	Wall and surface installation (Simple setup)
Communication Protocol	Can-Bus or RS-485
Blackout Mode	Available (Disabling visual and auditory notifications)
Customization	Programmable LED and audio options
Environmental Resilience	Resistant to elements such as water, moisture, rain, and dust due to its aluminum construction and sealed design.
Connection Type	Military Connector (PT02E10-6P)
Pinout Information for Can-Bus / RS 485	A: Power Input (16-32 VDC)
	B: Terrain
	C: CANH / RS-485A
	D: CANL / RS-485B
	E: Can-Bus Ground / RS-485 Ground
	F: Scenario Input / Output
Programming	Programmable through Can-Bus or RS 485, customizable scenarios are supported.

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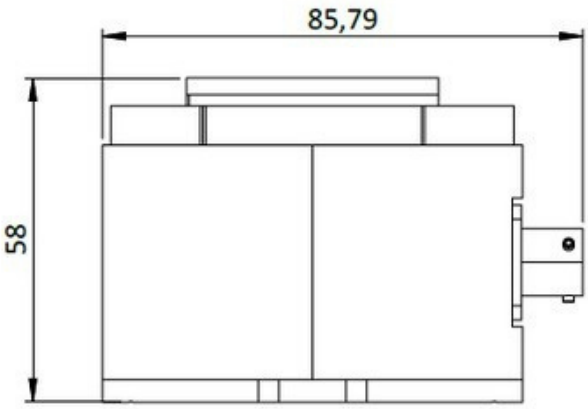

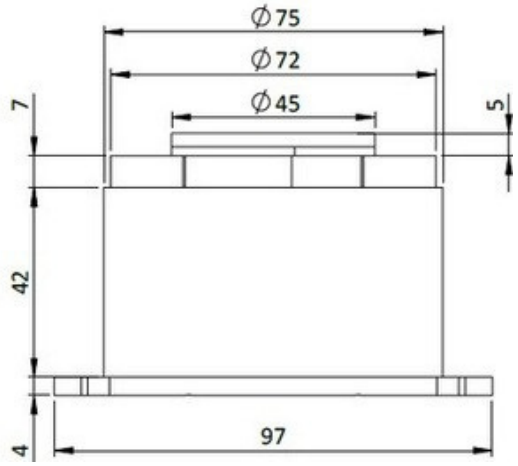

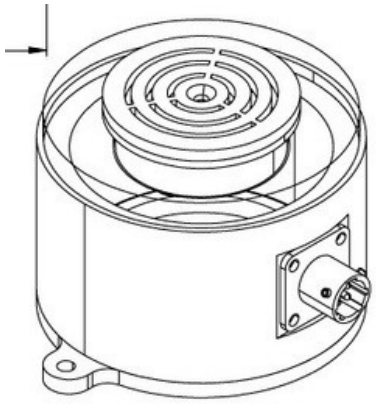

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