ExRemote

Industrial Remote for Explosive Hazardous Atmospheres
(ATEX / EX / HazLoc)

ExRemote's second generation industrial remotes offer high customizability while being extremely durable. A new modern design housing is made of a special mix of materials to obtain optimum tensile strength and anti-static properties. The electronics and wiring are designed so any potential spark will not even ignite the most explosive gas or dust mixtures. Parts are additionally insulated using resin, coating, sealings and boots.

A full battery lasts for over 6 shifts of 8 hours. With a range of over 200 meters operators have freedom of movement and can work from a safe distance. Features channel selection and automatic pairing to comply with radio regulations worldwide; "Listen Before Talk" and "Channel Hopping" for a robust wireless connection and optionally a wired connection (e.g. for off-shore).

Environmental Specifications

Parameter	Recommended	Min	Max
Temperature:			
Operating		-20 °C [-4 °F]	60 °C [140 °F]
Storage & Charging	20 °C [68 °F]	0 °C [32 °F]	40 °C [104 °F]
Relative Humidity:		0 %	100 %
Protection:	II 3GD Ex nA IIB T6 Gc Ex tc IIIC T85 Dc IP65 IK10+		

Mechanical specifications

Parameter	Value
Weight:	2.3 +/- 0.4 kg (incl. accessories, depending on configuration)
Dimensions:	252.4 × 144.7 × 159.3 +/- 0.4 mm (length × width × height, see drawings attached)

Electrical specifications

Parameter	Value
Operating voltage:	3.3 VDC
Power Consumption:	50 ~ 95 mA during operation 1.7 mA during sleep
Redundant version	65 ~ 115 mA during operation 2 mA during sleep
Battery:	3.7 V 2500 mAh LiPo
Charging	5 V 1 A for 6 to 8 hours using provided charger
Standby time	61 days (52 days for dual transceiver version)
Operating time	55 hours (38 hours for dual transceiver version)
Lifetime	5 years minimum when stored at 20 °C [68 °F] 300 Charging cycles

Wireless specifications

Parameter	Typical	Min	Max
Frequency bands:	869 MHz, 915 MHz		
Output power:		2 dBm [1.6 mW]	20 dBm [100 mW]
Range[1]:			
Line of sight:			220 m
With obstacles:	50		

[1] Subject to atmospheric circumstances and the size and material of obstacles.
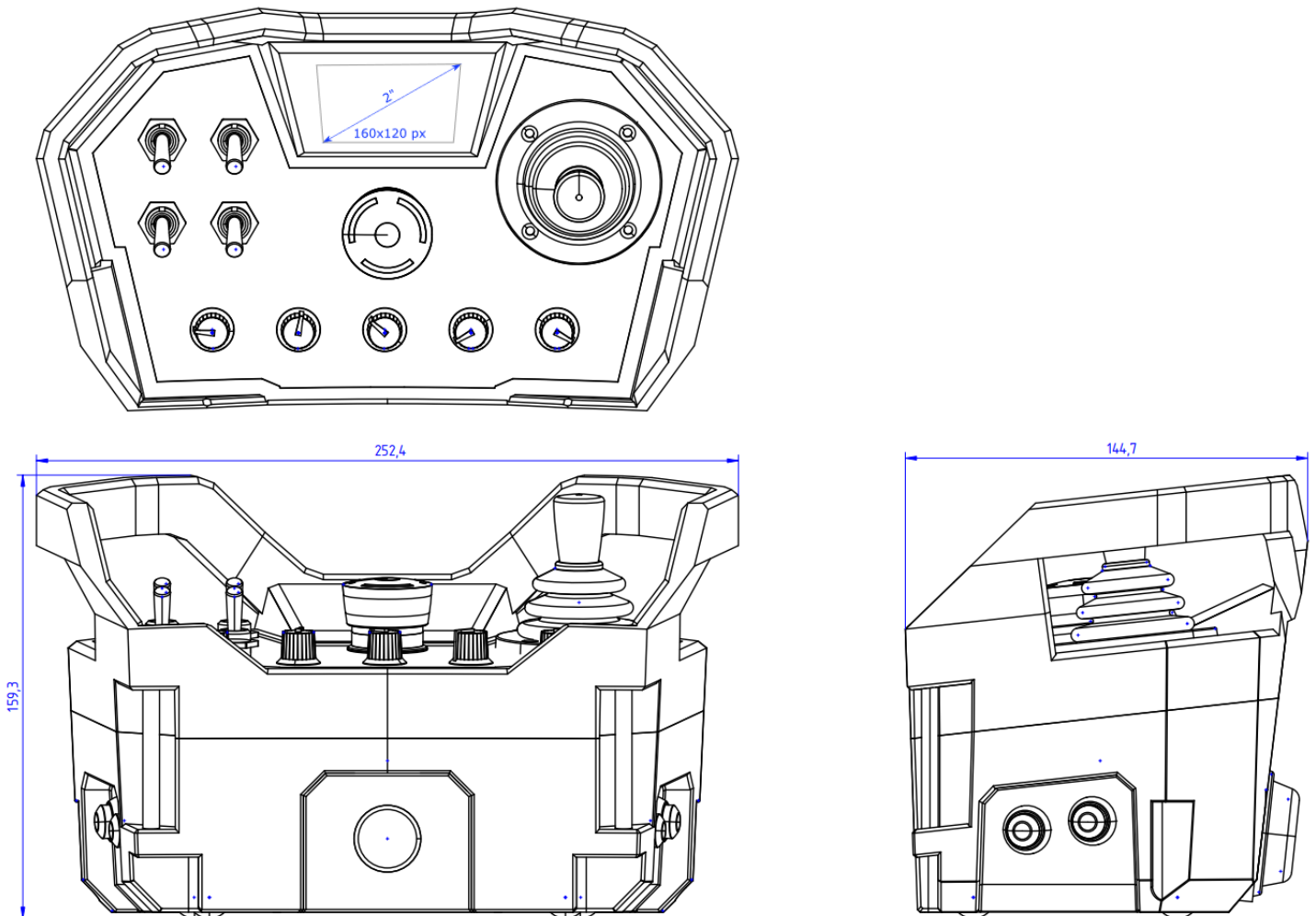
Features

- Durable, rugged housing with IP65 and IK10+ protection (EN/IEC 62262).
- Withstands extreme weather conditions.
- Field tested range: 220m line of sight.
- Low signal warning indicator.
- Antenna options and programmable for worldwide use (RED 2014/53/EU, FCC 47 Part 15).
- 50+ hours of battery life: protected 2500mAh LiPo cell built-in.
- Charging anywhere using USB-C port (12/24V car and 110/220V wall charger included).
- USB-C firmware and diagnostics port.
- Emergency Stop available (IEC 60204‑1 / NFPA 79 / CSA C22.2 No. 301).
- Two-way communication: status feedback from receiver application.
- Choice between sun readable display or multi-color status indicators.
- Wide 50 mm belt to clip remote around operator's waist.
- Optional wired connection: modbus (rs485) / utp / coax.

Revision 1.2

Layout options

Customers can choose a layout with a variety of controls: 1, 2 or 3 dimensional joysticks (HALL effect or resistive), 2 or 3 position toggles in all configurations, rotation knobs with or without (center-) detent(s), 1 or 2 position push buttons and a dual channel NC STOP button. There are 9 analog or digital channels and 11 digital only channels available. Analog channels can be used as multi-channel to expand the number of digital channels further.

Dimensions

Revision history

Version	Description	Date	Author
1.0	Initial release	6-9-2022	PvG
1.1	New design, updated mechanical specs, added description section, features section, layout options, dimensional drawings.	5-4-2024	PvG
1.2	Update dimensional drawing and dimensions	4-11-2024	PvG

Legal Disclaimer

Damages due to misuse of the product, operators input or omission thereof are the customer's responsibility. The product is not intended to be used in applications where operational failure would result in injury or death. Refer to the operator's manual for application specific details and maintenance.

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