



# SATEL Compact- Proof

SATEL Compact-Proof is a versatile data radio modem with rechargeable battery. It is based on SATELLINE-EASy and provides a compact and flexible solution for a wide range of applications. SATEL Compact-Proof is available on four different frequency variants: 330...420, 403...473, 869.400...870 and 865...867 MHz. This portable radio modem has easy user interface with display. IP67 classification guarantees durability.

Setting up a local data transfer network is quick and cost effective with SATEL radio modems. The wireless network is independent and free of operator services. The cost of operation is either free of charge or fixed, depending on the frequency used. SATEL radio modems are type-approved in over 50 countries.

SATEL radio modems are always on line and provide reliable, real-time data communications over distances ranging from

tens or hundreds of metres up to around 80 kilometres. Thanks to a store and forward function, any radio modem in a network can be used as a master station, substation and / or repeater.

SATEL radio modem networks are flexible, easy to expand and can cover a wide variety of solutions from simple point-to-point connections to large networks comprising hundreds of modems. Even for expanded networks, only one operating frequency is required.

# SATEL

**Mission-Critical Connectivity**

Read more: [www.satel.com](http://www.satel.com)

# SATEL Compact-Proof

SATEL Compact-Proof is IP67 classified product that is based on SATELLINE-EASy. It is equipped with rechargeable battery that can be easily replaced if necessary.

The lithium-ion battery provides a longlasting performance and plenty of operating hours. The operating time in +25°C is more than 15 h ( 50% duty cycle @ 1 W ).

There are three attachment options available. You can select a backplate that can be attached with screws to any surface, an aluminium hook or belt loops.

For applications that requires only a waterproof housing, SATEL Compact-Proof can be supplied without a battery, in that case the unit is powered via cable.

As an order option, models are available with external input voltage power toggle -feature, for systems where radio needs to be powered whenever the charging voltage is available.



## 330...420 / 403...473 MHz variants

These variants have a wide 90 / 70 MHz tuning range and the operation frequency can be selected within the ranges 330...420 or 403...473 MHz. 12.5, 20 and 25 kHz channel widths are software selectable.

The 330...420 / 403...473 MHz variants complies with the EN 300 113, EN 301 489-1, -5, EN 60950-1 and FCC Part 90 specifications.

## 869.400...870 MHz variant

This variant uses the Pan-European licence free 869 MHz frequency band. Modem has a maximum of 0.5 W output power. The 869.400...870 MHz variant complies with the EN 300 220-1, -2, EN 301 489-1, -3 and EN 60950-1.

## 865...867 MHz variant

This variant is ready to use on the Indian licence free channels 865...867 MHz. The modem has 2 MHz tuning range and 1 W output power. The 865...867 MHz variant complies with the EN 300 113-1, -2.

	SATEL Compact-Proof	
Frequency Range / Channel Width	330 ... 420 / 403 ... 473 MHz	12.5 / 20 / 25 kHz
	869.400 ... 870 MHz	25 kHz
	865 ... 867 MHz	25 kHz
Tuning Range	330 ... 420 / 403 ... 473 MHz	90 / 70 MHz
	869.400 ... 870 MHz	See the user guide
	865 ... 867 MHz	2 MHz
Sensitivity BER < 10E-3 (FEC ON)	-114 dBm @ 12.5 kHz -111 dBm @ 25 kHz	
Adjacent Channel Selectivity (FEC ON)	> 47 dB @ 12.5 kHz > 52 dB @ 25 kHz	
Data Speed of Radio Interface	19200 bps (25 kHz channel), 9600 bps (12.5 / 20 kHz channel)	
Power consumption Save Modes	1.2 W (Receive) 7 W (Transmit 1 W), 3.8 W (Transmit 0.5 W) Sleep: 0.12 W / DTR: 10 mW	
Max. Time of Operation	+ 60 °C ( 1 W )	13.8 h
	+ 60°C ( 50% TX/RX ratio@1 W )	22.2 h
	- 20 °C ( 1 W )	10.5 h
	- 20 °C ( 50 % TX/RX ratio@1 W )	16.9 h
	- 20 °C RX	44 h
Battery Capacity and Type	7.2 V, 8700 mAh Li-Ion	
Charging Time (empty to full)	5.5 h @ + 25 °C	
Charging Voltage / Current	+10.6 ... + 13.3 Vdc (-15% / +20%) / 1.6 A	
Power Connector	4-pin ODU MINI-snap size 1	
Modulation	4FSK GMSK (Available for 330 ... 420 and 403 ... 473 MHz frequencies)	
Carrier Power	330 ... 420 / 403 ... 473 MHz	0.1 ... 1 W
	869.400 ... 870 MHz	0.01 ... 0.5 W
	865 ... 867 MHz	0.01 ... 1 W
Frequency Stability	< 1 kHz	
Spurious Emission	< -100 dBm (RX), < -80 dBm on 3rd harmonics @ 1215 - 1240 MHz (TX)	

GENERAL	
Communication Mode	Half-Duplex
Type of Emission	F1D
Electrical Interface	RS-232
Interface Connector	Waterproof IP67, 8-pin ODU
Data Speed of Serial Interface	300 – 38400 bps
Data format	Asynchronous data
Operating temperature	-25 ... +55 °C ( Complies with standards ) -30 ... +65 °C ( Functional ) -40 ... +75 °C ( Absolute min./max. ) -40 ... +85 °C ( Storage )
Charging temperature	+5 °C ... +45 °C
Antenna Connector	TNC, 50 ohm, female
Material	Aluminium
Ingress Protection	67
Size H x W x D / Weight	186.5 mm x 83.8 mm x 50 mm / 850 g (without battery 520 g)

Values are subject to change without a notice.

## SATEL Oy

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