

# Harsh environment, flexible solution

Quality radio modems for  
wireless data communication

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## SATEL Proof-TR489

SATEL Proof-TR489 is a heavy-duty radio modem that meets the requirements of machine control and smart farming and marine applications. It is built to last dirt, vibration, sand, dust, liquids and lightning.

SATEL Proof-TR489 consists of an IP67 / IP69K sealed housing and a multifrequency radio module. It has three frequency bands for the client to select and set:

- Licensed 403 ... 473 MHz
- License-free 869.4...869.65 MHz
- License-free 902 ... 928 MHz

## GNSS

SATEL's radio modems and modules offer a first-class solution for GNSS, machine control and smart farming. Accuracy, continuity and availability are essential.

# SATEL

**Mission-Critical Connectivity**

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

SATEL – the world's leading expert and innovator in independent radio networking technology. Our solutions are used in wide range of industrial applications. We are known for our high quality, expertise, service and support.

**You can contact us directly or get in touch with your local distributor.**

# Heavy-duty solution that meets your needs

SATEL Proof-TR489 is a flexible and cost-effective solution that serves various needs. It has a profound electrical protection; both the power and data lines as well as the antenna interface are surge protected. Because of the IP69K-classification it stands high pressure and hot water. It has additional filtering on GNSS frequencies.

The modem is compatible with SATEL-EASy+ / -TR4+ / SATELLINE-EASy / -TR1 / -TR9 based radio modems on corresponding frequencies, as well as several other radio protocols.

## SATEL Proof-TR489

Complies with requirements in	EU, Australia, USA, Canada
Frequency range	403 ... 473 / 869.4 ... 869.65 / 902 ... 928 MHz
Channel spacing	12.5, 20, 25 kHz @ 403 .. 473 MHz 25, 50 @ 869.4 .. 869.65 MHz
Spreading method	Frequency hopping spread spectrum @ 902 ... 928 MHz
TX power max.	1 W / 0.5 W / 1 W
RX sensitivity, typical	-112 dBm / -108 dBm / -109 dBm
Serial interface	RS-232 (TD, RD lines)
Serial data speed max.	115200 bps
Radio data speed max.	28800 bps / 38400 bps / 115200 bps
Operating voltage range	+7 ... +27.5 Vdc (-15 % / +20 %)
Power consumption	RX / TX 1.3 W / 7 W (typical)
Interface connector	Deutsch DT04-6P-CL09
Antenna connector	TNC female
Size H x W x D / Weight	174 x 95 x 46 mm / <500 g
IP classification	IP67 / IP69K



*Values are subject to change without a notice.*