

Magnet Contact Transmitter Module STM 32x / STM 320C STM 320U

The radio transmitter module family STM 32x from EnOcean enables the implementation of a wireless magnet contact sensor.

Powered by a small pre-installed solar cell, it works absolutely maintenance-free. An integrated energy store allows operation for several days even in total darkness.

Key applications are window and door sensors.

Functional Principle

The STM 32x supervises an integrated reed contact and reports every status change immediately (open<>closed). In addition a sign of life signal is transmitted every 20-30 minutes.

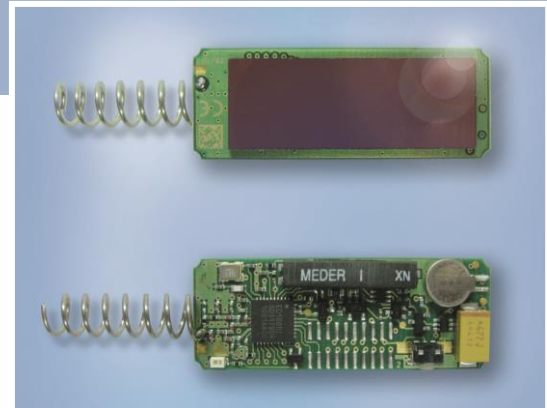
STM 32x implements three frequency variants – STM 320 /STM 329 using 868MHz, STM 320C using 315MHz and STM 320U using 902MHz.

Features Overview

Power supply	provided by a small pre-installed solar cell
Antenna	pre-installed helical antenna
Frequency	868.3 MHz (STM 32x) / 315.0 MHz (STM 320C) / 902.875 MHz (STM 320U)
Radiated output power	STM 320: typ. 5 dBm (EIRP) STM 329: typ. 5 dBm (EIRP) STM 320C: +92 dBμV/m ± 2 dB ² STM 320U: +99 dBμV/m ± 2 dB ²
Data rate / Modulation type	125 kbps / ASK(868MHz, 315MHz) or FSK(902MHz)
EnOcean Equipment Profile	D5-00-01
Start-up time with empty energy storage	typ. <2.5 min @ 400 lux, 25°C
Initial operation time in darkness @25°C¹	typ. 6 days, if energy storage fully charged
Reed contact	1x internal, Meder MK23-90-BV14496 or MK01-I
Teach-in button	1x internal
Transmission indicator	1x LED
Module dimensions	43 x 16 x 6 mm
Operating temperature¹	-20 up to +60 °C
Encryption Algorithms	VAES 128, CMAC – STM 320 / STM 329

¹ Tolerance of measurement in production at 50 Ω

² Full performance is achieved after several days of operation (up to two weeks) at good illumination level. Performance degrades over life time, especially if energy storage is exposed to higher temperatures. Each 10 K drop in temperature doubles the expected life span.



Type	Ordering Code
STM320	S3001-D320
STM329	S3001-D329
STM320C	S3031-D320
STM320U	S3051-D320

Additionally the STM 320 and STM 329 in 868 MHz include the enhanced secure mode. In enhanced secure mode the communication is protected by enhanced security features e.g. encryption.