

Pushbutton Transmitter Module PTM 200C

The radio transmitter module PTM 200C from EnOcean enables the implementation of wireless remote controls without batteries. Power is provided by a built-in electrodynamic power generator.

Key applications are wall-mounted flat rocker switches with 1 or 2 rockers (with medial position), as well as handheld remote controls with up to 4 single pushbuttons

Functional Principle

A common electro-dynamic energy transducer is actuated by a bow, which can be pushed from outside the module on the left or right by an appropriate pushbutton or switch rocker. When the energy bow is pushed down, electrical energy is created and a RF telegram is transmitted including a 32-bit module ID. Releasing the energy bow generates different telegram data, so every PTM telegram contains the information that the bow was pressed or released. In addition, the radio telegram transmits the operating status of 4 contact nipples when activating the bow. This enables the identification of up to 2 appropriate switch rockers or up to 4 single pushbuttons. „Long“ or „Short“ pushbutton operation (the time



between pushing and releasing the pushbutton) can be easily detected by the receiver. By doing that, applications such as dimming control or jalousie control including slat action are simple to implement.

The PTM 200C module serves the 315 MHz air interface protocol of EnOcean. Together with the transceiver modules TCM200C or TCM220C, this module can be easily integrated in operation and control units for the implementation of different application-specific system solutions.

Type
PTM200C

Ordering Code
S3031-A200

Features overview

Power supply	power generation by rocker operating (Electrodynamic Power Generator)
Antenna	external whip antenna 26.8cm
Frequency / Transmission power	315.0 MHz / typ. 3dBm at antenna input
Data rate / Modulation type	125 kbps / ASK
Channels	2 with 4 action states each (upper/lower pushbutton is pressed/released)
Telegram type	RPS of type 2 (allows interpretation of operating two buttons simultaneously)
Transmission range	up to 200m free field, up to 30m indoor
Energy bow travel/ Operating force	1.8 mm / approx. 7 N (at room temperature)
Number of operations	typ. 50.000 actuations tested according to EN 60669 / VDE 0632
Module dimensions (inclusive rotation axis and energy bow)	40.0 x 40.0 x 11.2 mm
Operating temperature	- 25 up to + 65 °C

Radio signals are event controlled (pushbutton is pressed / is released) with button code and unique module identification (fix 32 bit ID).

PTM200C is approved for usage in the USA (FCC), in Canada (IC), and Japan (MIC).