

Pushbutton transmitter modules from EnOcean enable the implementation of wireless remote controls without batteries. Electrical power is provided by a built-in electro-dynamic generator.

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

Functional Principle

The 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 (PTM 210J optional 48 bit). 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. This enables the identification of up to 2 appropriate switch rockers or up to 4 single pushbuttons. By measurement of the time between push and release telegram, the receiver can easily implement applications dimming or shutter control.



PTM 215 contains an additional encryption mode. Telegrams are encrypted via a combination of rolling code and AES128 encryption algorithm.

| Type | Ordering Code |
|----------|----------------------|
| PTM 210 | S3001-A210 (868 MHz) |
| PTM 210U | S3051-A210 (902 MHz) |
| PTM 210J | S3061-A210 (928 MHz) |
| PTM 215 | S3001-A215 (868 MHz) |

Features overview

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| Power supply | power generation by rocker movement via electro-dynamic power generator |
| Antenna | integrated PCB antenna |
| Frequency / typ. range | 868.300 MHz / 300m free field / 30m indoor 902.875 MHz / 300m free field / 30m indoor 928.350 MHz / 200m free field / 20m indoor |
| Data rate | 125 kbps |
| Channels | 2 with 4 action states each (upper/lower/pressed/released) |
| EnOcean Equipments | Normal mode PTM 210/215: EEP F6-02-xx / F6-04-xx Rolling code PTM 215/215U: EEP D2-03-00 |
| Energy bow travel/Operating force | 1.8 mm / typ. 9 N (at room temperature) |
| Number of operations at 25°C | typ. 100.000 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 approvals | PTM 210 (max. radiated power -1.9dBm): RED (EU) PTM 215 (max. radiated power -2.1dBm): RED (EU) PTM 210U : FCC (US) / ISSED (CA) PTM 210J: ARIB (Japan) |