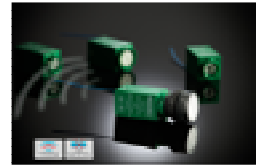


## BATTERY-FREE WIRELESS MODULES

### Modules (= transmitter)

- required energy to transmit the signal is generated by an electrodynamic generator using the travel
- communication based on the EnOcean protocol
- European harmonized frequency of 868.3 MHz
- operating temperature of the modules: -25 to +65°C
- mechanical life:
  - module (transmitter): 1 million switching cycles
  - receiver: 100 000 switching cycles
- combination with pushbuttons, 2-position key and selector switches having 6 mm travel
  - DFA16 (QUARTRON, QUARTRON-JUWEL, RX-JUWEL, RX)
  - DFA22 (RONDEX, RONDEX-M, RVA, DUX-BASIC, KRJ, RONDEX-JUWEL)
- limit switches also available (EK-FA-...)
- every module has a unique ID > several modules per receiver are possible
- signal range
  - 100 m in open fields
  - 30 m in buildings, ambient conditions to be considered (chart below)
  - range can be extended by using repeaters



| Material                                   | Attenuation |
|--|-------------|
| Wood, plaster, glass without metal coating | 0...10%     |
| Bricks, pressboard                         | 5... 35%    |
| Ferro concrete                             | 10... 90%   |
| Glass with metal coating                   | 60... 90%   |
| Metal, aluminium coating                   | 90...100%   |

## Receiver

- 1 channel receiver (S\_FSR61\_8-24VUC and S\_FSR61\_230V)
  - operating voltage 24V AC resp. 230V DC
  - mounting: flush mounting
  - 1 NO contact
  - momentary or maintained function
  - 35 modules per receiver
  - can be used as repeater
  - operating temperature: -20 to +50°C
  
- multi-channel receiver (S\_FSR14-2X)
  - S\_FSR14-2X (RS485 bus actuator, 2 channels), main module > function settings (maintained/momentary)
  
  - S\_FRP14 wireless repeater level 1/2
    - level1: repeats signal of the transmitter
    - level2: repeats the already repeated signal
  - mounting: DIN rail
  - 2 NO contacts
  - 118 modules (transmitter IDs) per channel
  - the bus RS485 is expendable up to 126 channels
  - operating temperature: -20 to +50°C



Antenna receiver with integrated power supply (S\_FAM14) receives and checks signals within the range, signals are transmitted to the bus actuator (activates function).



External antenna with magnet base (S\_758-910) amplifies the signal e.g. when the bus actuator is installed in a switching cabinet.



## Applications

- building technology
- industrial automation
- mobile applications, e.g. to open gates from a fork lift