

Data sheet
RATIO®-radio bus system
Window Contact 1-channel FK101



The Ratio®-window contact 1-channel FK101 is a battery- and maintenance-free radio sender. The power generation is effected by transformation of roomlight into electrical energy by a solar generator. It conduces to the equipment condition monitoring by means of a reedcontact with magnet of windows and doors and the radiotransmission to actors/receivers/gateways.

It is suited for assembling at windows- and doorframes made of wood, glass, aluminium.

Technical Data	Window contact FK101	Remarks
Operating data	Solar Power Generator, battery-free.	
Radio technology	Protocol EnOcean-STM, Transmission power max. 10mW EIRP	Frequency 868,3MHz Modulation ASK
Radio module / Channels	STM250 / 1Reed Contact with 2 action states (open/closed)	
Start up time from empty storage	for learning use for use for 14 hours in darkness	> 10 min. @ 100 lx > 5 h @ 1000 lx or > 13 h @ 400 lx
Start up time from lowest operation state	for use for 14 hours in darkness	> 20 min @ 400 lx or > 1 h @ 400 lx
Operation time	> 60 h in total darkness when storage is filled	
Measurement value logging	Every 100 seconds	
RF-Transmission	by change in state or every 5 to 30 minutes (normaly 15 Minutes) for live test	
Range	Interior 30 to 100m, exterior up to 300m	
Dimensions	Casing: L x B x T 110mm x 19mm x 15mm	
Mechanical Data	Casing: plastic ABS,	Weight: 40g
Mounting / Assembly	Finery on a flat underground	Adhesion or screws
Environmental conditions	Temperature when in operation Storage temperature Rel. humidity (non-condensing)	-25°C ... +65°C -40°C ... +85°C 0 ... 95%
Approbation	R&TTE guidelines 1999/5/EC and conforming to EU regulations. ROHS conforming according to 2002/95/EC.	

Telegram							
Byte	Symbol	Significance	Value	Byte	Symbol	Meaning	Value
0	SYNC1	Synchronization	A5h	1	SYNC2	Synchronization	5Ah
2	HEADER	Number of byte following	0Bh	3	ORG	Type of transmitter	06h
4	DATA3	Bit 0: Condition 0 = contact open Bit 3: Learning branch pressed=1	08h/09h 01h/00h	5	DATA2	always 0	00h
6	DATA1	always 0	00h	7	DATA0	always 0	00h
8	ID3	ID-Number part 1	xxh	9	ID2	ID-Number part 2	xxh
10	ID1	ID-Number part 3	xxh	11	ID0	ID-Number part 4	xxh
12	STATUS	Status byte	00h	13	CHK	Check sum	xxh

Designation	Designation additive	Typ	Article number
Window contact 1-channel	Color clean-white	FK101-rw	2101153
	Color anthracite	FK101-a	2101201
	Color aluminum varnished	FK101-sb	2101200
	Other Colors		On request