

Data sheet
RATIO®-radio bus system
Hand-transmitter 4-channel R101



The Ratio®-hand-transmitter 4-channel R101 is a wireless, battery-free and maintenance-free radio switch with four independent single keys. Due to its extremely ergonomic design it lies perfectly in the hand and can also be installed at the wall.

Technical Data	Hand-transmitter 4-channel R101	Remarks
Operating data	Energy generation by means of electro-dynamic energy generator (induction principle), wireless and battery-free.	
Radio technology	Protocol EnOcean-PTM, Transmission power max. 10mW EIRP	Frequency 868,3MHz Modulation ASK
Radio module / Channels	PTM200 / 2 with 4 action states each (upper/lower pushbutton is pressed/released)	
Actuating force/operation stroke	1,8mm / ca. 7N by 25°C	
Switching cycles	50'000 manipulation according to EN60669/VDE 0632	
Range	Interior 30 to 100m, exterior up to 300m	
Dimensions	Casing: BxHxT 48mmx81mmx19mm	
Mechanical data	Casing: plastic ABS, Weight: 40g	
Mounting / Assembly	As hand remote-control	Adhesion on a flat underground
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	05h
4	DATA3	Pair of keys A Key Off Pair of keys A Key On Pair of keys B Key Off Pair of keys B Key On Pair of keys A&B Key Off Pair of keys A&B Key On	30h 10h 70h 50h 37h 15h	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	xxh	13	CHK	Check sum	xxh

Designation	Designation additive	Typ	Article number
Hand transmitter 4 channel with 4 single keys	Color clean-white	R101-rw	1281153
	Color black	R101-sw	1281150
	Color Aluminium varnished	R101-sb	1281200
	Other Colors		On request