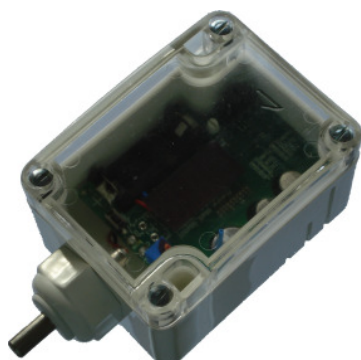


**Data sheet**  
**RATIO®-radio bus system**  
**Outside temperature sensor ATF101**



The Ratio®-outside temperature sensor ATF101 is a battery- and maintenance-free radio sender. The power generation is effected by transformation of light into electrical energy by a solar generator. It conduces to the measuring of outside temperature and the radio transmission to actoators receivers/gateways.

Technical Data	Outside temperature sensor ATF101	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	STM100, 1 AO	
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	
Temperature collection	Range: -20°C..60°C	Accuracy +/- 0,8K
Measurement value logging	Every 100 seconds	
Transmission interval	every 100 seconds during change of measured value > 1,6K every ca. 16 Minutes status telegram	
Range	Interior 30 to 100m, exterior up to 300m	
Dimensions	Casing: LxBxT 85mm x 85mm x 25mm	
Mechanical Data	Casing: plastic PA6,	Weight: 110g
Protection category	IP65 after EN 60529	
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 ... +65°C 0 ... 70%
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	Length	0Bh	3	ORG	Type of transmitter	07h
4	DATA3	always 0	00h	5	DATA2	always 0	00h
6	DATA1	Actual value linear, -20°C = 255 Bit, 60°C = 0 Bit	xxh	7	DATA0	Bit 3 = Learning branch, 0=pressed	xxh
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
Outside temperature sensor		ATF101	2102153