

# Radio transmission system for signals

## Characteristics transmitter



Input:	Pt 100 (-50...+350°C) resistance strain gauge thermocouple with temperature transmitter standard signal 0...1(10) V or 0(4)...20 mA
Supply:	accumulators (internally/externally), solar cell in case lid or external 24 VDC
Protection:	degree of protection IP 68
Range:	approx. 300 m at free visibility
Accuracy:	±0,1% of end scale value

## Characteristics receiver



Output:	0...1(10) V, 0(4)...20 mA interface RS 232 and RS 485
Accuracy:	±0,1% of end scale value
Protection:	IP 65
Port:	128 transmitters with 32 receivers optional 1 receiver Palm or PC
System:	authorized by German authority for telecommunication
Supply:	115/230 VAC, optional 24 VDC

## Operating, adjustment



output signal: selected with DIP-switches  
indication/output signal: 3 keys  
programming  
indication of value and channel



settings of transmitter with DIP switches  
connections of antenna and supply with plugs  
fixing with mounting holes in screw channels

## Applications

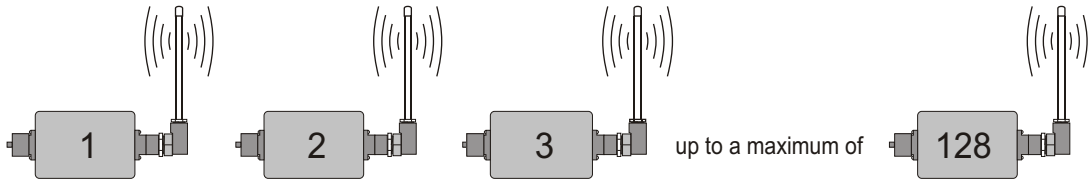
For use in all ranges where measuring problems have to be solved, eg clarification plants, silo works, rotary furnace, tank farms, art exhibitions, safeguard device for ocean lanes, well building, etc.



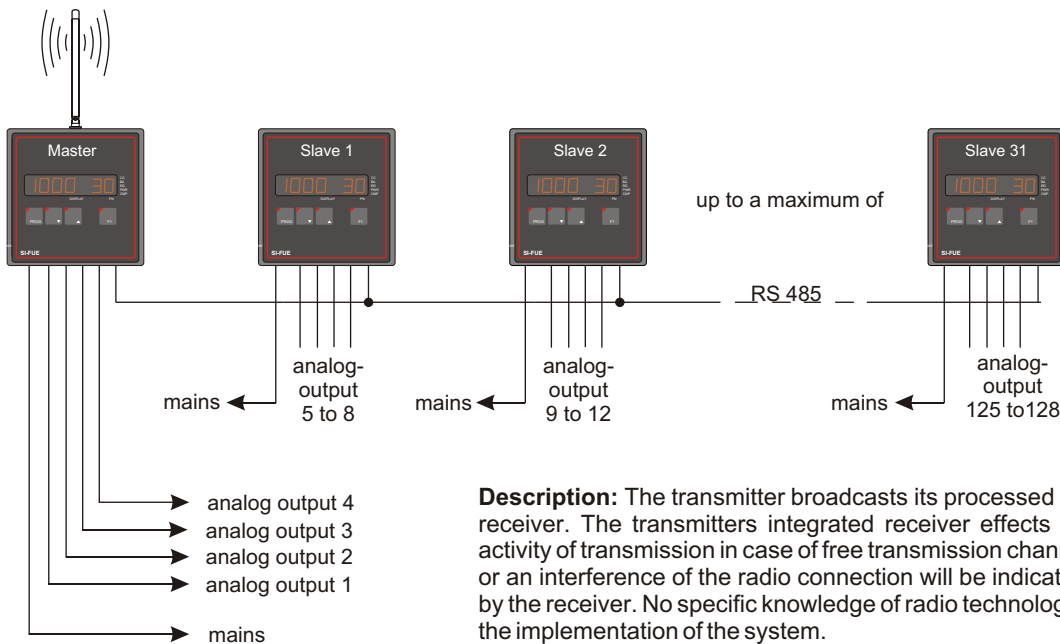
**General**

The maximum distance of 300m between transmitter and receiver is only reachable at free visibility between the components. At impeded sight the working distance decreases accordingly.

**Transmitter**

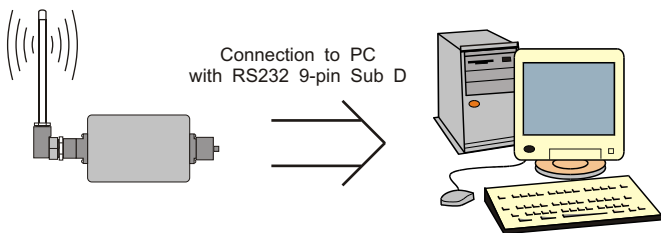


**Receiver standard / receiver slave**



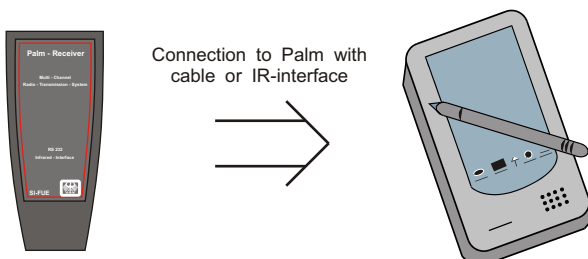
**Description:** The transmitter broadcasts its processed input signal to the receiver. The transmitters integrated receiver effects that there is only activity of transmission in case of free transmission channel. A break-down or an interference of the radio connection will be indicated and evaluated by the receiver. No specific knowledge of radio technology is necessary for the implementation of the system.

**Module "Receiver PC"**



- for standard PC (W95/W98/ME)
- software processing 128 input signals
- indication digital, analog, as bargraph or graph
- export of data to MS-programs

**Module "Receiver Palm"**



- for standard Palm handheld
- software processing 128 input signals
- indication digital, analog, as bargraph or graph
- IR interface alternatively

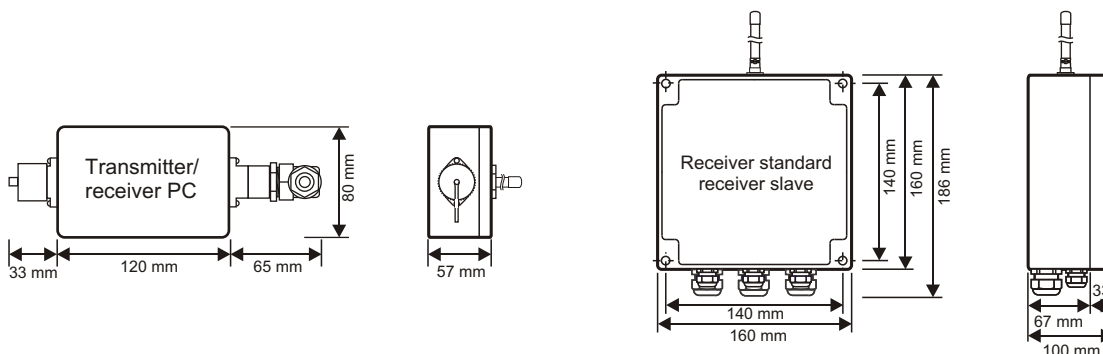
Ordering code and dimensions

Ordering code

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<b>Receiver:</b>	1 pce standard master (max. 4 channels)	0
	Module PC (max. 128 channels)	1
	Module Palm (max. 128 channels)	2
<b>Receiver extensions:</b>	1 pce receiver slave (+ 4 channels)	1
	2 pcs receiver slave (+ 8 channels)	2
	3 pcs receiver slave (+ 12 channels)	3
	4 pcs receiver slave (+ 16 channels)	4
	5 pcs receiver slave (+ 20 channels)	5
	6 pcs receiver slave (+ 24 channels)	6
	7 pcs receiver slave (+ 28 channels)	7
	8 pcs receiver slave (+ 32 channels)	8
	9 pcs receiver slave (+ 36 channels)	9
<b>Power supply receiver:</b>	Module PC / module Palm	0
	24 VDC	1
	24 VDC galvanically insulated	2
	115 VAC	3
	230 VAC	4
<b>Input transmitter:</b>	Pt 100 2-wire	0
	thermocouple with digital transmitter	1
	voltage 0...(1)10 V	2
	current 0(4)...20 mA	3
	wire strain gauge	4
<b>Supply transmitter:</b>	24 VDC externally, 1 internal accumulator	0
	24 VDC externally, 2 internal accumulators	1
	Solar cell	2
	external accumulator 12 V/1,2 Ah, 1 internal accumulator	3
	external accumulator 12 V/1,2 Ah, 2 internal accumulators	4
	external accumulator 12 V/1,2 Ah	5
<b>Number of transmitter:</b>	1 transmitter	1
	2 transmitters	2
	3 transmitters	3
	4 transmitters	4
	5 transmitters	5
	6 transmitters	6
	7 transmitters	7
	8 transmitters	8
	9 transmitters	9
	10 transmitters	A
	11 transmitters	B
	12 transmitters	C
	13 transmitters	D
	14 transmitters	E
	15 transmitters	F
<b>Battery charger:</b>	battery charger	0

Dimensions



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**Technical data****HF**

Waveband:	70 cm (433,15...434,65 MHz) ISM-band
License:	towards ETS
Modulation:	FM
Transmitter power:	10 mW
Range:	approx. 300 m with free visibility

**Input**

Transmitter:	Pt 100 2-wire (-50...+350°C or thermocouple (with digital transmitter) or standard signal 0...1(10) V; 0(4)...20 mA or resistance strain gauge
Port facilities:	up to 128 modules possible

**Output**

Receiver:	0...1 V, 0...10 V, 0...20 mA; 4...20 mA (burden 500 ohms) RS 232 and RS 485 (up to 9600 bps, 8N1)
Port facilities:	up to 32 modules possible (1x master and 31x slave)

**Accuracy**

Measuring rate:	1 measurement/s down to 1 measurement/h
Linearity:	+/- 0,1% of end scale value
Temperature coefficient:	+/- 0,05% of end scale value
Resolution:	12 bit

**Power supply**

Internal supply transmitter:	Accumulator 9 VDC with external charge connector, - optional 2x 9VDC accumulators - optional solar cell mounted in case lid
Power supply transmitter:	12...24 VDC or large accumulator in extra case
Power supply receiver:	115/230 VAC, optional 24 VDC

**Ambient conditions**

Operation temperature:	0...+60°C
Storing temperature:	-20...+80°C

**Mechanics**

Case:	transmitter: 120 x 80 x 57 mm receiver: 160 x 160 x 100 mm
Material of case:	transmitter: diecast aluminium receiver: diecast aluminium
Fixing:	Internal mounting holes in screw channels - optional clip-on transmitter
Colour:	transmitter: RAL 7001 silver grey receiver: bottom part RAL 7035 light grey cover RAL 7040 window grey
Degree of protection:	transmitter: IP 68 receiver: IP 65
Weight:	transmitter: 0,6 kg receiver: 2,1 kg
Antenna:	transmitter: double antenna with plug 692 series receiver: rubber helical antenna with BNC plug
Terminal:	transmitter: antenna with panel socket 692 series, sensor/power supply with panel plug 692 series receiver: BNC socket for antenna power supply/output: terminal screw in case cable entry: 1x M12x1,5 and 5x M20x1,5