

CT4-Rotate

Telemetrie für Lüfter

4-Kanal Telemetrie, zur berührungslosen und zeitgleichen Signalübertragung von Sensoren auf Lüfterschaufeln

ebm-papst Lüfter



Telemetrie-Sender
4-Kanäle
DMS, ICP, Thermo, Volt

Transmitter Device (Encoder)



CT4-Rotate-ENC

SC Module STG:

Sensor:	strain gage, ≥ 350 Ohms
Bridge completion:	full, half and quarter-bridge (optional)
Excitation:	4 VDC (fixed), short-circuit protection up to 20mA
Gain:	200 or 1000 - selectable by solder jumpers
Offset	Zero adjustment by potentiometer or <u>optional</u> Auto-zero function (which is not lost by power-off), offset range up to 80% of full scale.

SC Module TH-K-ISO:

Sensor:	thermo-couple, type K, full galvanic isolation!
Temperature measuring range:	-0°C to +250°C (other on request), accuracy +/-1%

SC Module VOLT:

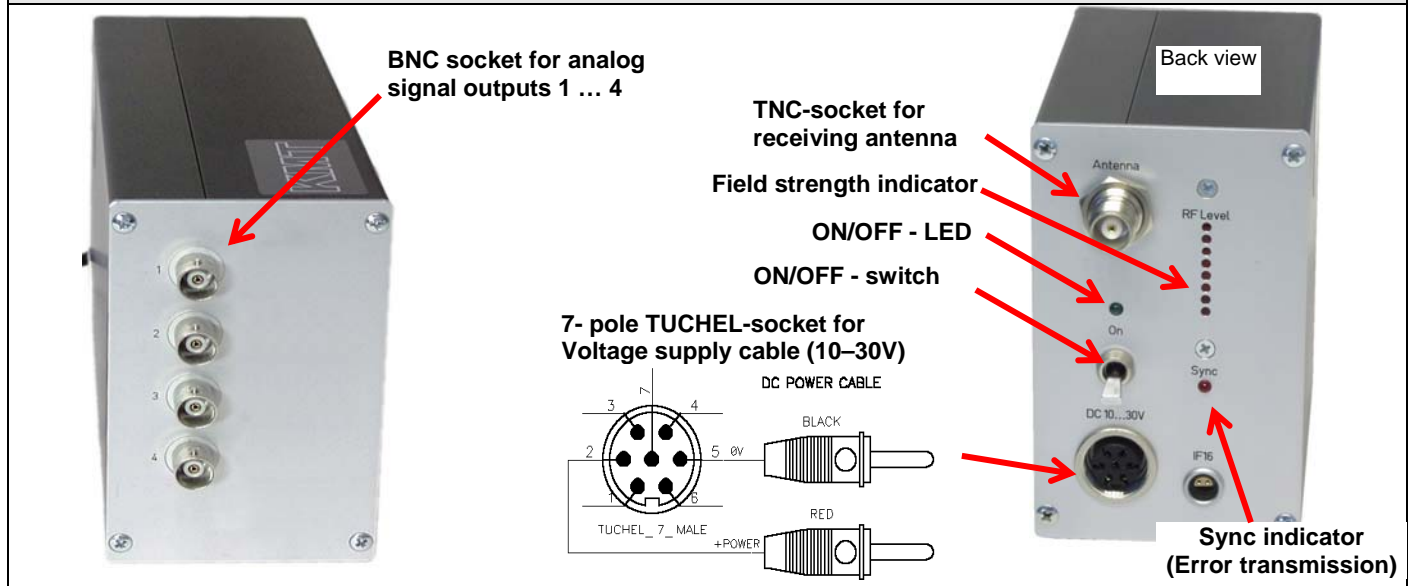
High-level inputs:	+/- 5 Volt or +/- 10 Volt
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System Parameters:

Channels:	4
Resolution:	12 bit A/D converter with anti aliasing filter, simultaneous sampling of all channels
Line-of-sight distance:	1m with 10mW transmitting power (47MHz Band, FSK modulation)
Powering:	Li Ion Accumulator 7.2V, 2000mA, capacity for 10 hours
Analog signal bandwidth:	(-3dB cut-off frequency) 4 x 0 ... 6000Hz with <u>1280 kbit/s Short transmitter</u>
Dimensions:	Diameter 90mm, height 95mm
Weight:	0.70 kg without cables
Transmission:	Digital PCM Miller format - FSK
Operating temperature:	- 20 ... +70°C
Housing:	Water resistant (IP65)
Humidity:	20 ... 80% no condensing
Static acceleration:	100g in all directions
Shock:	200g in all directions



Technical data:
Receiving Unit CT4-Rotate DEC (Decoder)



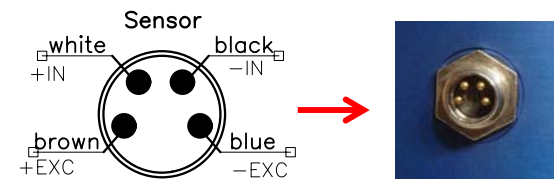
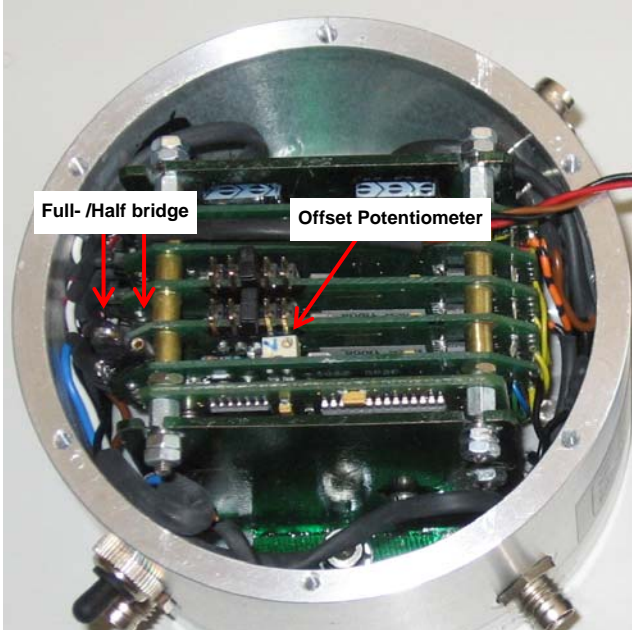
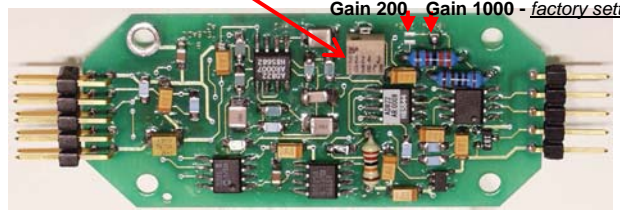
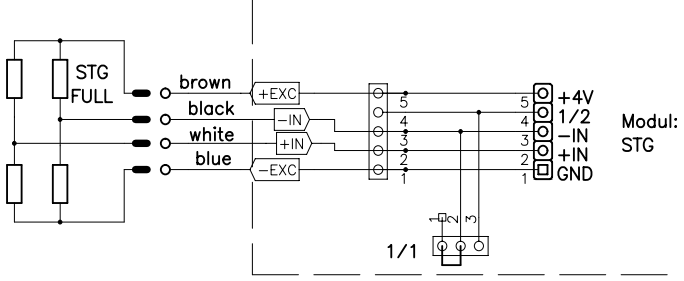
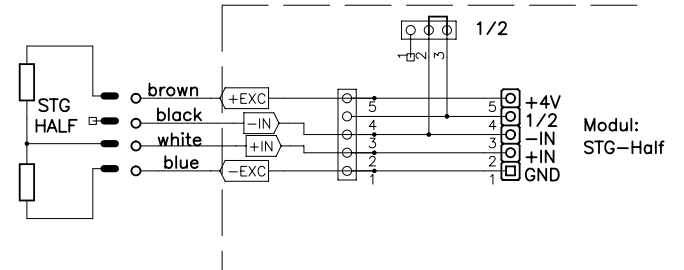


System parameters:

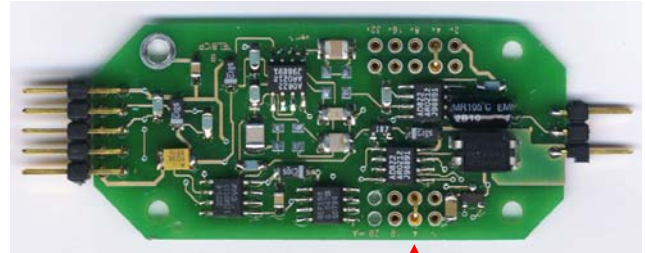
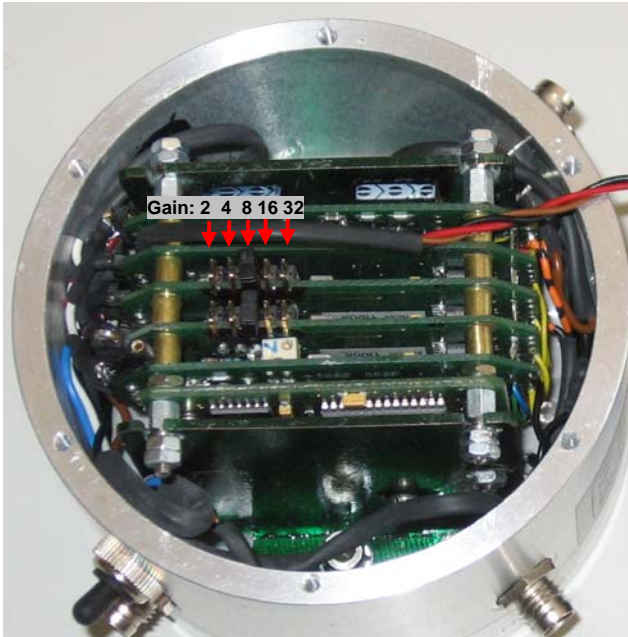
Channels:	4 analog outputs via (BNC) +/-5V
Resolution:	12 bit D/A converter, with smoothing filter
Dynamic:	72dB
Power supply input:	10-30 VDC
Current consumption:	300mA at 10V, 100mA at 30V
Analog signal bandwidth:	(-3dB cut-off frequency)
4-channel version	4 x 0 ... 6000Hz with <u>1280 kbit/s Short transmitter</u> (1x 47 MHz distance only 1m)
Dimensions:	205 x 105 x 65mm
Weight:	1.00 kg without cables and antenna
Overall system accuracy between encoder input and decoder output:	+/-0.25% without sensor influences, with CT-TH-K only +/-1%
Environmental	
Operating:	-20 ... +70°C
Humidity:	20 ... 80% not condensing
Vibration:	5g Mil Standard 810C, Curve C
Static acceleration:	10g in all directions
Shock:	100g in all directions

Technical specifications are subject to change without notice!

Connection, STG bridge configuration: CT4-Rotate ENC (encoder)

 <p>Sensor cable</p>	<p>Black = IN - White = IN + Brown = EXC + Blue = EXC -</p>	 <p>Sensor socket</p>	<p>STG module Type: Strain gage >350 Ohms Excitation: 4 VDC (fixed) Gain: 200 or 1000</p>  <p>Plug at CT8-Rotate ENC</p>
<p>Sensor modules</p> 		<p>Offset Potentiometer</p>   <p>Modul: STG</p>  <p>Modul: STG-Half</p>	

Connection ICP



Current: 4 mA fixed

ICP-Modul



ICP module

Type: ICP
 Gain: 2x, 4x, 8x, 16x or 32x
 Constant current: 4 mA

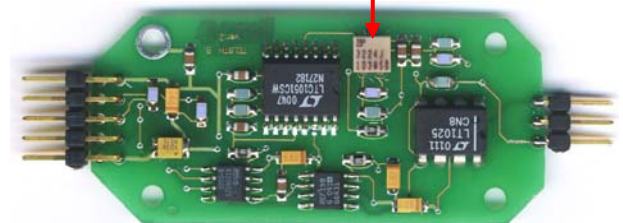
Connection Th K

Thermo couple

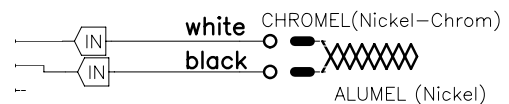
Type: K
 Range: 0 – 250°C
 Bandwidth: 0-20Hz
 Accuracy +/-1%

Temperature [°C]	Output [V]	Temperature [°C]	Output [V]
0	-4,66	130	0,50
10	-4,27	140	0,89
20	-3,88	150	1,27
30	-3,49	160	1,66
40	-3,09	170	2,05
50	-2,70	180	2,43
60	-2,30	190	2,81
70	-1,90	200	3,20
80	-1,50	210	2,58
90	-1,10	220	3,96
100	-0,70	230	4,35
110	-0,30	240	4,74
120	0,10	247	5,00

Don't change offset!!



Thermo (K)-Modul



Li Ion Re-Chargeable Battery with Charger Unit for CT4-Rotate

Pin connection





black
GND

brown
+Pwr

blue
NU

Charge

Charge plug at CT4-Rotate ENC






Battery charger CT-Charger

1. Plug the 3-pole socket (charger) in to the CT4-Rotate encoder.
2. Plug banana plugs on to a battery or AC/DC power supply with a voltage range of 10-30
3. Press and hold the switch for 1 second to begin charging. The battery will now charge. Charge time 2-3 hours, if the red LED of the Charger is dark!

Set includes:

