

**Common Technical Specifications for the OPUS 200/300 and 200i/300i**

<b>Storage Data</b>	<b>Description</b>	<b>Notes</b>
Storage capacity	max. 30 000 values/channel	
Sampling interval	0,1s 1s 10s 30s 1min	individually adjustable for each channel
Storage interval	0,1s 1s 10s 30s 1....1440min	individually adjustable for each channel
Storage options	Avg., min., max.	any combination possible

<b>General Data</b>	<b>Description</b>	<b>Notes</b>
Display	2 lines / 8 characters	Readable to -20°C
Dimensions (B x H x T)	58 x 200 x 66 mm	
Weight	200 gr	
System of protection	IP 42	with terminal cover plate
Plug connector	COMBICON	Phoenix

**General Technical Specifications for the OPUS 200/200i**

General Tech. Specs	Type	Minimum	Maximum
Voltage supply	200 200i	9V DC 20V DC	15V DC *) 30V DC **)
Power consumption	200 active 200 stand-by 200i active 200i stand-by		< 100mA < 100µA < 100mA/24V < 15mA/24V
Insulation voltage (supply/input) (only 200i)			500V
Operating temperature	200 200i	-30°C -20°C	+60°C +40°C
Storage temperature		-30°C	+70°C
Humidity ***)		0%	80%

**Comments:**

- \*) typical: 12V, accumulator-operated
- \*\*) typical: 24V, power supply operation
- \*\*\*) not condensing

## General Technical Specifications for the OPUS 300/300i

General Tech. Specs	Type	Minimum	Maximum
Voltage supply	300 300i	9V DC 20V DC	15V DC *) 30V DC **)
Power consumption	300 active 300 stand-by 300i active 300i stand-by		< 100mA < 100μA < 100mA/24V < 15mA/24V
Insulation voltage (supply/input) (only 300i)			500V
Operating temperature	300 300i	-30°C -20°C	+60°C +40°C
Storage temperature		-30°C	+70°C
Humidity ***)		0%	80%

### Comments:

- \*) typical: 12V, accumulator-operated
- \*\*) typical: 24V, power supply operation
- \*\*\*) not condensing

## OPUS 200/200i

Input/output	Measuring range	Resolution
Serial interface (IS1)		
Resistance	0 to 2000Ohm	0.02 Ohm
	0 to 2kOhm	0.2 Ohm
	0 to 20kOhm	2 Ohm
	0 to 100kOhm	50 Ohm
Temperature/resistive: NTC (5k3A1)	-30°C to +100°C	0.02°C
PT100	-100°C to +400°C	0.02°C
PT1000	-100°C to +400°C	0.05°C
Thermoelements J	-200°C to +1200°C	0.2°C
Thermoelements K	-200°C to +1200°C	0.2°C
Thermoelements N	-200°C to +1200°C	0.2°C
Thermoelements E	-200°C to +1000°C	0.2°C
Thermoelements R	-50°C to +1500°C	0.2°C
Thermoelements S	-50°C to +1700°C	0.2°C
Voltage	0 to +/-20mV	10µV
	0 to +/-40mV	25µV
	0 to +/-0.1V	50µV
	0 to 1V	500µV
	0 to 10V	2mV
Frequency input	10 to 1000Hz	0,1%
Counter input	65000 Imp./Sp.	1 Impulse
Current input	0 to 20mA	5µA
	4 to 20mA	10µA
Current output	0/4 to 20mA (only OPUS 200i)	10µA
Relay output	Power rating (Resistor): 0.5A/30V (Resistor): 0.3A/30V	Service life 500,000 cycles 1,000,000 cycles

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Accuracy	Notes
	RS232 with CTS and RTS Baud rate: 480 to 57600
0.1% MV + 0.02% FS	TK: +/-25ppm/°C
0.1% MV + 0.02% FS	TK: +/-25ppm/°C
0.1% MV + 0.02% FS	TK: +/-25ppm/°C
0.2% MV + 0.05% FS	TK: +/-25ppm/°C
0.1°C/25°C +  ΔT x.2% FS	TK: +/-0.005°C/°C
0.2°C/0°C +  ΔT x0.1% FS	TK: +/-0.005°C/°C
0.2°C/0°C +  ΔT x0.1% FS	TK: +/-0.005°C/°C
1°C/25°C/Ta=20°C	
1°C/25°C/Ta=20°C	
1°C/25°C/Ta=20°C	
1°C/25°C/Ta=20°C	
1°C/25°C/Ta=20°C	
1°C/25°C/Ta=20°C	
0.1% MV + 0.02% FS	TK: 25ppm/°C Ri≥1M Ohm
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0.1% MV + 0.02% FS	TK: 25ppm/°C Ri≥1M Ohm
only possible using external voltage distributor	
0.2%	Ri≥100k Ohm
2 Impulses/ storage	Ri≥100k Ohm
0.1% MV + 0.02% FS	TK: +/-25ppm°C Shunt: 30 Ohm
0.1% MV + 0.02% FS	TK: +/-25ppm°C Shunt: 30 Ohm
0.1% MV + 0.1% FS	TK: +/-25ppm°C Burden: <300 Ohm

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OPUS 300/300i

Input/output	Measuring range	Resolution
Serial interface (ISI)		
Resistance	0 to 200Ohm	0.02 Ohm
	0 to 2kOhm	0.2 Ohm
	0 to 20kOhm	2 Ohm
	0 to 100kOhm	50 Ohm
Temperature/resistive: NTC (5k3A1)	-30°C to +100°C	0.02°C
PT100	-100°C to +400°C	0.02°C
PT1000	-100°C to +400°C	0.05°C
Thermoelements J	-200°C to +1200°C	0.1°C
Thermoelements K	-200°C to +1200°C	0.1°C
Thermoelements N	-200°C to +1200°C	0.1°C
Thermoelements E	-200°C to +1000°C	0.1°C
Thermoelements R	-50°C to +1500°C	0.1°C
Thermoelements S	-50°C to +1700°C	0.2°C
Voltage	0 to +/-20mV	10µV
	0 to +/-40mV	25µV
	0 to +/-0.1V	50µV
	0 to 1V	500µV
	0 to 10V	2mV
Frequency input	10 to 1000Hz	0.1%
Counter input	65000 Imp./Sp.	1 Impulse
Current input	0 to 20mA	5µA
	4 to 20mA	10µA
Current output	0/4 to 20mA (only OPUS 300i)	10µA
Relay output	Power rating (Resistor): 0.5A/30V (Resistor): 0.3A/30V	Service life 500,000 cycles 1,000,000 cycles

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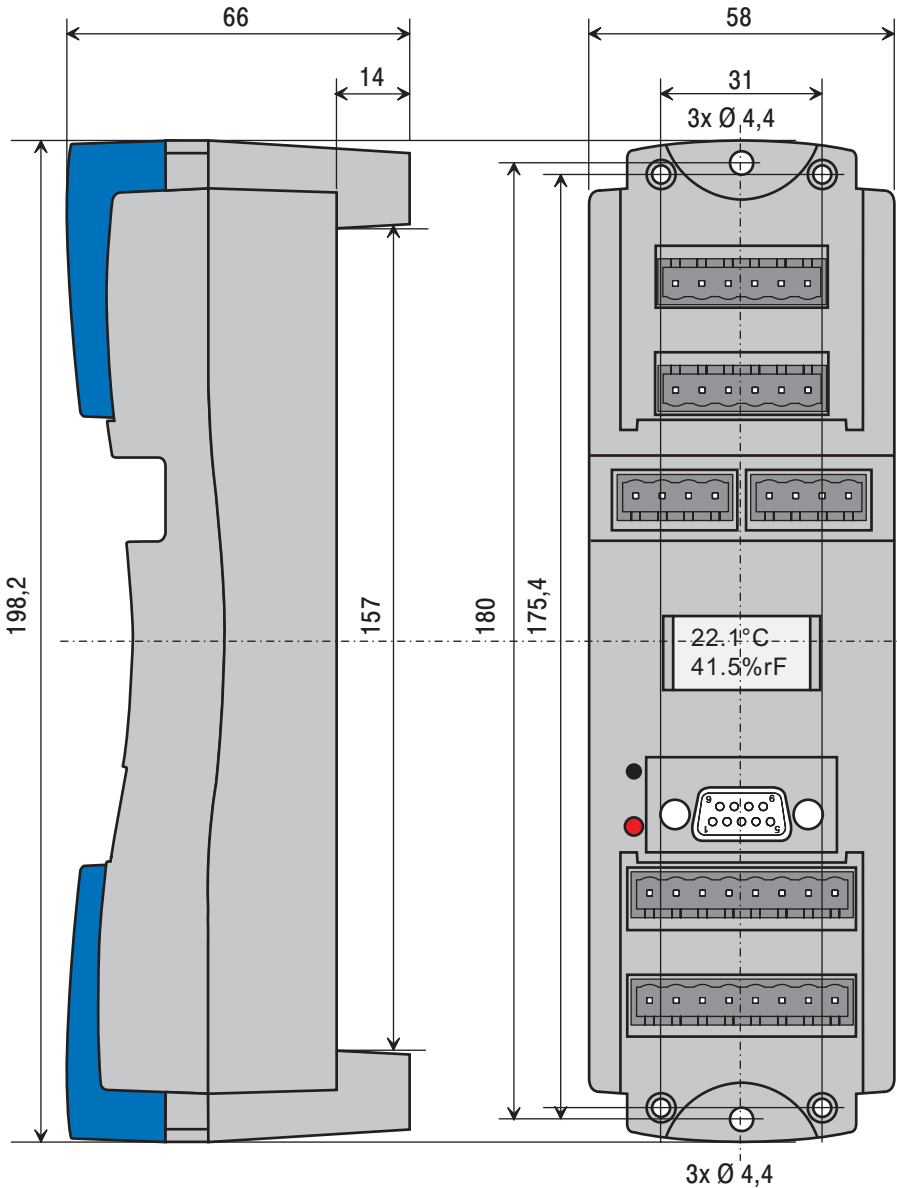
English

Accuracy	Notes
	RS232 with CTS and RTS Baud rate: 4800 to 57600
0.05% MV + 0.01% FS	TK: +/-10ppm/°C
0.05% MV + 0.01% FS	TK: +/-10ppm/°C
0.05% MV + 0.01% FS	TK: +/-10ppm/°C
0.1% MV + 0.05% FS	TK: +/-10ppm/°C
0.1°C/25°C +  ΔT x0.2%FS	TK: +/-0.001°C/°C
0.2°C/0°C +  ΔT x0.1%FS	TK: +/-0.002°C/°C
0.2°C/0°C +  ΔT x0.1%FS	TK: +/-0.002°C/°C
0.5°C/25°C/Ta=20°C	
0.5°C/25°C/Ta=20°C	
0.5°C/25°C/Ta=20°C	
0.5°C/25°C/Ta=20°C	
0.5°C/25°C/Ta=20°C	
0.5°C/25°C/Ta=20°C	
0.05% MV + 0.01% FS	TK:5ppm/°C Ri≥1M Ohm
0.05% MV + 0.01% FS	TK:5ppm/°C Ri≥1M Ohm
0.05% MV + 0.01% FS	TK:5ppm/°C Ri≥1M Ohm
0.05% MV + 0.02% FS	TK:5ppm/°C Ri≥1M Ohm
only possible using external distributor	
0.2%	Ri≥100k Ohm
2 Impulses/ storage	Ri≥100k Ohm
0.05% MV + 0.02% FS	TK: +/-10ppm/°C Shunt: 30 Ohm
0.05% MV + 0.02% FS	TK: +/-10ppm/°C Shunt: 30 Ohm
0.1% MV + 0.1% FS	TK: +/-25ppm/°C Burden: <300 Ohm

English

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Dimensions Drawing



English

Figure 23: OPUS 200/300 dimensional drawing