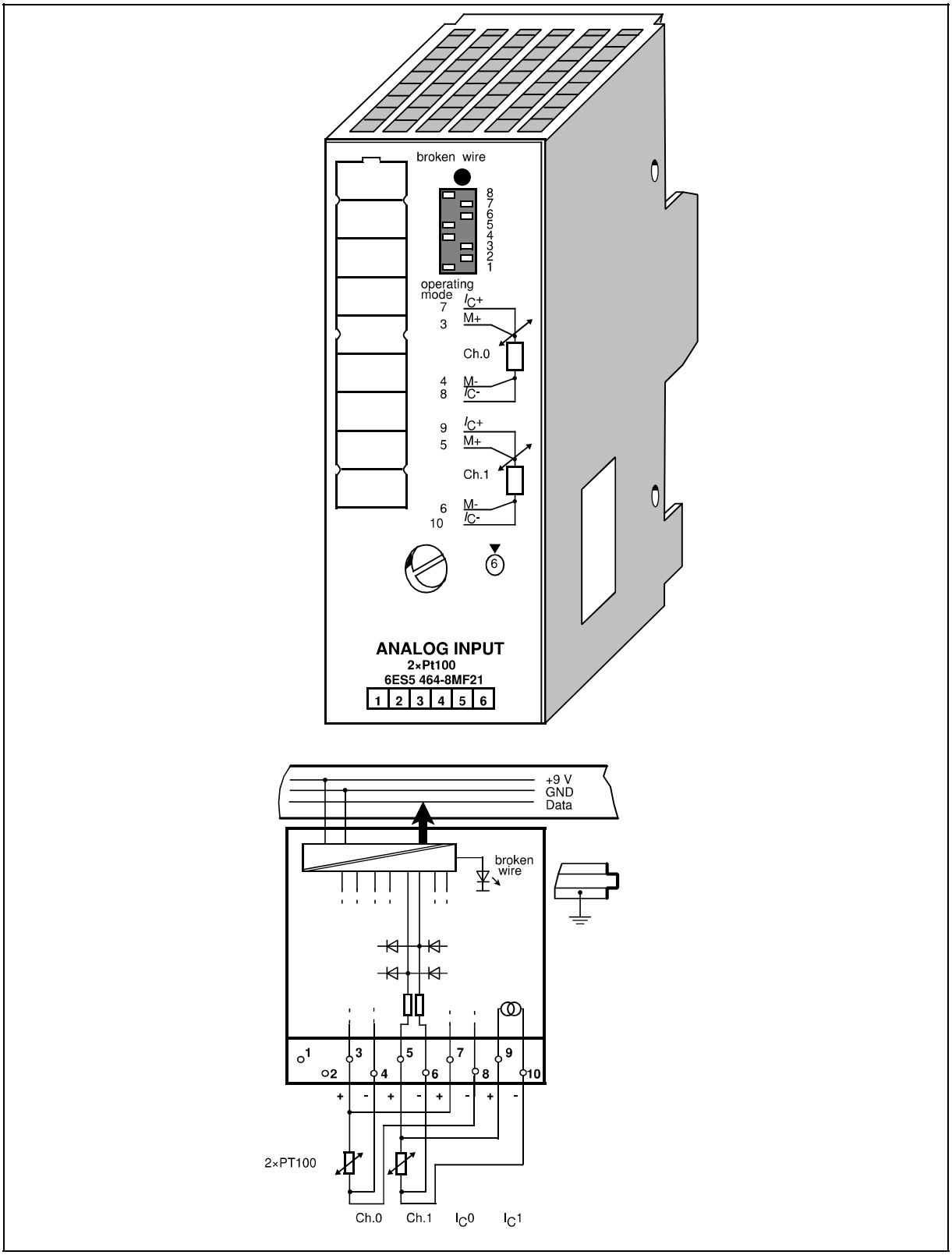
Analog Input Module 2 x PT 100/±500 mV (6ES5 464-8MF21)



Analog Input Module 2 × PT 100/±500 mV (continued) (6ES5 464-8MF21)

Technical specifications

Input range (rated values)		
- resistance sensor (PT 100)		0 to 200 (max. 400)
- voltage source		± 500 mV
Number of inputs		1 or 2 (selectable)
Galvanic isolation		yes (inputs to grounding point; not between inputs)
Input resistance		10 M
Connection method of sensors		two or four-wire connection
Digital representation of input signal		12 bits + sign (2048 units = rated value)
Measured value representation		two's complement (left-justified)
Measuring principle		integrating
Conversion principle		voltage-time conversion (dual slope)
Integration time (adjustable for optimum noise suppression)		20 ms at 50 Hz 16.6 ms at 60 Hz
Encoding time per input		
- for 2048 units	max.	60 ms at 50 Hz
	max.	50 ms at 60 Hz
- for 4095 units	max.	80 ms at 50 Hz
	max.	66.6 ms at 60 Hz
Permissible voltage difference		
- between inputs	max.	± 1 V
- between inputs and central ground point	max.	75 V DC/60 V AC
Permissible input voltage (destruction limit)	max.	24 V DC
Fault indication for		
- range exceeded		yes (more than 4095 units)
- sensor wire break		yes (selectable)
- general indication of wire break		red LED

Noise suppression for f = nx (50/60Hz ± 1%); n = 1, 2, ...		
- common mode rejection (V_{PP} = 1 V)	min.	86 dB
- series-mode rejection (peak value of noise < rated value of input range)	min.	40 dB
Basic error limits		±0.15%
Operational error limits (0 to 60 °C) (32 to 140 °F)		±0.4 %
Single errors		
- linearity		±0.05%
- tolerance		±0.05%
- polarity reversal error		±0.05%
Temperature error		
- final value		±0.01%/K
- zero point		± 0.002%/K
Linearization exactness in rated range		±0.5 °C (0.9 °F)
Characteristic linearization of PT 100-characteristic curve		DIN IEC 751
Length of cable		
- shielded	max.	200 m (660 ft.)
Supply voltage L +		none
Auxiliary current for PT 100		2.5 mA
Resistance-type sensor		
- tolerance		±0.05%
- temperature error		±0.006%/K
- influence of load variation		±0.02%/100
Insulation rating		VDE 0160
Rated insulation voltage (+9 V to ⏚)		12 V AC
- insulation group		1 x B
- tested with		500 V AC
Rated insulation voltage (inputs to + 9V)		60 V AC
- insulation group		1 x B
- tested with		500 V AC
Current consumption		
- from + 9 V (CPU)	typ.	100 mA
Power loss of the module	typ.	0.9 W
Weight	approx.	230 g (8 oz.)