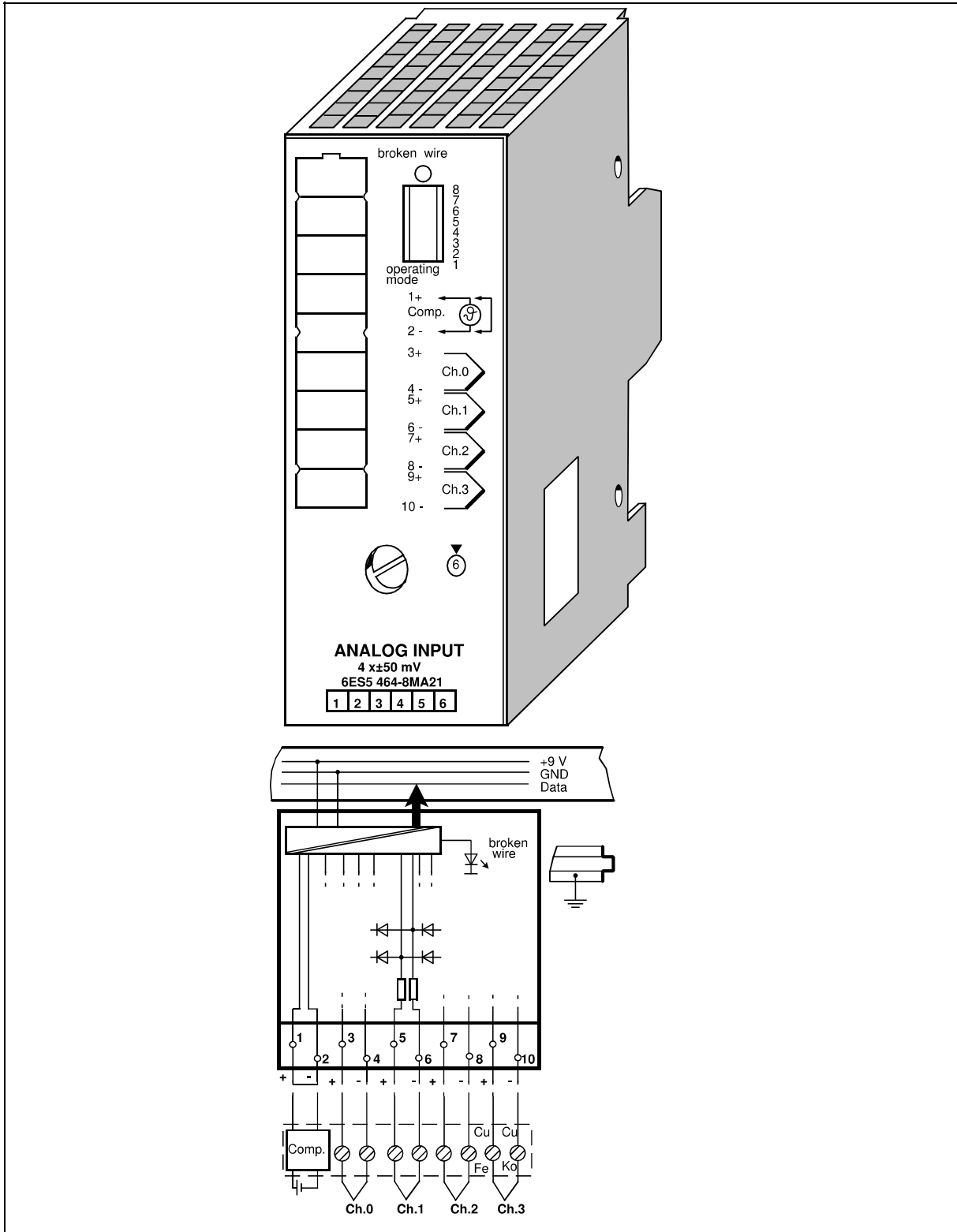


Analog Input Module 4 x ± 50 mV

(6ES5 464-8MA21)



Analog Input Module 4 x ± 50 mV (continued)

(6ES5 464-8MA21)

Technical specifications			
Input range (rated values)	± 50 mV	Noise suppression for $f = n \times$ (50/60 Hz $\pm 1\%$) $n = 1, 2, \dots$	
Number of inputs	1, 2 or 4 (selectable)	- common mode rejection ($V_{pp} = 1$ V)	min. 86 dB
Galvanic isolation	yes (inputs to grounding point; not between inputs)	- series mode rejection (peak value of noise < rated value of input range)	min. 40 dB
Input resistance	10 M	Basic error limits	$\pm 0.15\%$
Connection method of sensors	two-wire connection	Operating error limits (0 to 60 °C) (32 to 140 °F)	$\pm 0.4\%$
Digital representation of input signal	12 bits + sign (2048 units = rated value)	Single errors - linearity - tolerance - polarity reversal error	$\pm 0.05\%$ $\pm 0.05\%$ $\pm 0.05\%$
Measured value representation	two's complement (left-justified)	Temperature error - final value - zero point	$\pm 0.01\%$ /K $\pm 0.002\%$ /K
Measuring principle	integrating	Linearization exactness for rated range (for types J,K,L)	± 1 °C (1.8 °F)
Conversion principle	voltage-time conversion (dual slope)	Characteristic lineari- zation for the following thermoelements - Nickel-Chromium/ Nickel-Aluminium (Type K) - Iron/Copper-Nickel (Type J) - Iron/Copper-Nickel (Type L)	IEC 584 IEC 584 DIN 43710
Integration time (adjustable for optimum noise suppression)	20 ms at 50 Hz 16.6 ms at 60 Hz	Length of cable - shielded	max. 50 m (164 ft.)
Encoding time per input		Supply voltage L+	none
- for 2048 units	max. 60 ms at 50 Hz	Connection of compensating box	possible
- for 4095 units	max. 50 ms at 60 Hz	Insulation rating	VDE 0160
- for 4095 units	max. 80 ms at 50 Hz	Rated insulation voltage (+9 V to $\perp$)	12 V AC
	max. 66.6 ms at 60 Hz	- insulation group	1 x B
Permissible voltage difference		- tested with	500 V DC
- between inputs	max. ± 1 V	Rated insulation voltage (inputs to + 9 V)	60 V AC
- between inputs and central ground point	max. 75 V DC/60 V AC	- insulation group	1 x B
Permissible input voltage (destruction limit)	max. 24 V DC	- tested with	500 V AC
Fault indication for - range exceeded	yes (more than 4095 units)	Current consumption - from + 9 V (CPU)	typ. 100 mA
- sensor wire break	yes (selectable)	Power loss of the module	typ. 0.7 W
- general indication of wire break	red LED	Weight	approx. 230 g (8 oz.)