9.7.10 Technical Specifications

6ES5 470-4UA12, 6ES5 470-4UB12 and
6ES5 470-4UC12 Analog Output Modules

Rated output ranges - 6ES5 470-4UA12 (-4UA13) - 6ES5 470-4UB12 (-4UB13) - 6ES5 470-4UC12 (-4UC13)	0 to ± 10 V and 0 to 20 mA parallel for ± 1024 units ± 10 V for ± 1024 units 1 to 5 V and 4 to 20 mA parallel for 0 to 1024 units
Number of outputs	8 voltage and current outputs each, no-load and short-circuit-proof
Isolation	Yes 8 outputs with respect to M_{ext} , M and L+/L-
Measured value representation	12-bit (two's complement)
Linearity in the range of ± 1024 units	± 2 LSB = ± 0.2 %
Operational error limits (0 to 60 °C)	± 0.6 %
Temperature coefficient for voltage and current outputs	1 x 10^{-4}/K
Permissible overrange	Approx. 25 % (± 1024 to ± 1272 units)
Fault current at voltage output	Approx. 25 mA
No-load voltage at current output	Approx. 18 V
Load impedance - at voltage output - at current output	 ≥ 3.3 kΩ ≤ 300 Ω
Delay between data transfer and analog value output to > 99%	≤ 5ms
Capacitive load including line capacity for -4UA12 from version 03 and for -4UB12 and -4UC12 from version 04:	100 nF max. 1 µF max.
Permissible voltage drop on voltage output lines	± 0.3 V at maximum output voltage
Power supply - Digital section from system bus - Analog section from load voltage - Enabling for module, F+/F-	 5 V ± 5 %; approx. 250 mA 24 V; 200 to 400 mA 24 V; approx. 7 mA
Permissible potential difference between reference potential of the load and housing (U_{CM})	25 V AC / 60 V DC max.
Voltage test to VDE 0160	Between outputs and housing tested at 500 V AC