

Analog modules

Analog input EM 231



6ES7 231-0HC22-0XA0

Current consumption

- | | |
|--|-------|
| ● from load voltage L+ (no load), max. | 60 mA |
| ● from backplane bus 5 V DC, max. | 20 mA |
| ● Power dissipation, typical | 2 W |

Connection system

- | | |
|---------------------------|----|
| ● Pluggable I/O terminals | No |
|---------------------------|----|

Analog inputs

- | | |
|--|------------------|
| ● Number of analog inputs | 4; Differential |
| ● Length of cable shielded, max | 100 m; to sensor |
| ● Permiss. input voltage for voltage input (destr. limit), max. | 30 V |
| ● Permiss. input volt. for the current input (destr. lim.), max. | 32 mA |

Input ranges (rated values), voltages

- | | |
|--------------------|-----|
| - 0 to +5 V | Yes |
| - 0 to +10 V | Yes |
| - -2.5 V to +2.5 V | Yes |
| - -5 V to +5 V | Yes |

Input ranges (rated values), currents

- | | |
|--------------|-----|
| - 0 to 20 mA | Yes |
|--------------|-----|

Characteristic curve linearization

- | | |
|---------------------------|----|
| - for voltage measurement | no |
| - for current measurement | no |

Temperature compensation

- | | |
|-------------------|----|
| - parameterizable | No |
|-------------------|----|

Analog value formation

Integration and conversion time/triggering per channel

- | | |
|---|--|
| - with over-range (bits incl. sign), max | 12 Bit |
| - Interference voltage suppr. for interference frequency f1 in Hz | 40 dB, DC up to 60 V for interference frequency 50 / 60 Hz |
| - Conversion time (per channel) | 250 µs |

Displayable conversion value range

- | | |
|--------------------|--------------------|
| - bipolar signals | -32,000 to +32,000 |
| - unipolar signals | 0 to 32000 |

Errors/accuracies

Interference voltage suppression for f = n x (f1 +/- 1 %)

- | | |
|-----------------------------|------|
| - Common-mode voltage, max. | 12 V |
|-----------------------------|------|

Potentials/ electrical isolation

Analog output functions

- | | |
|---------------------------------------|----|
| - Electrical isolation, analog inputs | No |
|---------------------------------------|----|

Dimensions and weight

- | | |
|-------------------|---------|
| ● Width | 71.2 mm |
| ● Height | 80 mm |
| ● Depth | 62 mm |
| ● Weight, approx. | 183 g |