


Template:FMA110 Electrical characteristics

Electrical characteristics

| Characteristic description | Value | | | |
|--|-------|-------|----------------|------|
| | Min. | Typ. | Max. | Unit |
| Supply Voltage: | | | | |
| Supply Voltage (Recommended Operating Conditions) | 5 | | 30 | V |
| Digital Input: | | | | |
| Input resistance (DIN1, DIN2, DIN3) | 15 | | | kOhm |
| Input Voltage (Recommended Operating Conditions) | 0 | | Supply voltage | V |
| Input Voltage threshold (DIN1) | | 7.5 | | V |
| Input Voltage threshold (DIN2, DIN3) | | 2.5 | | V |
| Digital Output (Open Drain grade): | | | | |
| Drain Current (Digital Output OFF) | | | 120 | uA |
| Drain Current (Digital Output ON, Recommended Operating Conditions) | | | 300 | mA |
| Static Drain-Source Resistance (Digital Output ON) | | | 300 | mOhm |
| Analog Input: | | | | |
| Input voltage (Recommended Operating Conditions), 0 Range 1 | | | 10 | V |
| Input resistance, Range 1 | | 120 | | kOhm |
| Measurement error | | 4.43 | | % |
| Additional error | | ±12 | | mV |
| Input Voltage (Recommended Operating Conditions) 0 Range2 | | | 30 | V |
| Input resistance, Range2 | | 146.7 | | kOhm |
| Measurement error | | 1.75 | | % |
| Additional error | | ±36 | | mV |
| Output Supply Voltage 1-Wire:¹ | | | | |
| Supply voltage | 3.3 | | 3.6 | V |
| Output inner resistance | | 7 | | Ohm |
| Output current ($U_{out} > 3.0$ V) | | 30 | | mA |
| Short circuit current ($U_{out} = 0$) | | 130 | | mA |
| <div>  Analog Input error margin can increase if temperature varies. If Analog input is not connected FMA1YX will still measure certain numbers and it cannot be 0. This measurement is influenced by hardware components. </div> | | | | |

1-wire Supply voltage PIN is dedicated for 1-wire devices ONLY, do not use it for any other purpose