

Template:FMB2 Electrical characteristics

Electrical characteristics

| Characteristic description | Value | | | |
|---------------------------------------------------------------------------|-------|-------|------|------|
| | Min. | Typ. | Max. | Unit |
| Supply Voltage: | | | | |
| Supply Voltage (Recommended Operating Conditions) | 6 | | 30 | V |
| Digital Output (Open Drain grade): | | | | |
| Drain current (Digital Output OFF) | | | 120 | µA |
| Drain current (Digital Output ON, Recommended Operating Conditions) | 0.1 | | 0.5 | A |
| Static Drain-Source resistance (Digital Output ON) | | | 120 | mΩ |
| Digital Input: | | | | |
| Input resistance (DIN1) | | 59.9 | | kΩ |
| Input resistance (DIN2, DIN3) | | 67.5 | | kΩ |
| Input voltage (Recommended Operating Conditions) | 0 | | 60 | V |
| Input Voltage threshold (DIN1) | 4 | 4 | 8 | V |
| Input Voltage threshold (DIN2, DIN3) | 2.5 | 2.7 | 3 | V |
| Analog Input: | | | | |
| Input voltage (Recommended Operating Conditions), Range 1 | 0 | | 10 | V |
| Input resistance, Range 1 | | 120 | | kΩ |
| Input voltage (Recommended Operating Conditions), Range 2 | 0 | | 30 | V |
| Input resistance, Range 2 | | 146.7 | | kΩ |
| Output Supply Voltage 1-Wire: | | | | |
| Supply voltage | | 3.8 | | V |
| Output inner resistance | 450 | | 600 | mΩ |
| Output current ($U_{out} > 3.0$ V) | | | 75 | mA |
| Short circuit current ($U_{out} = 0$) | | | 75 | mA |

✘ Analog Input error margin can increase if temperature varies.

Absolute maximum ratings

| Characteristic description | Value | | |
|-----------------------------------------------------------------------------------------------------------|-------|------|-----------|
| | Min. | Typ. | Max. Unit |
| Supply Voltage (Absolute Maximum Ratings) | -32 | | +32 V |
| Drain-Source clamp threshold voltage (Absolute Maximum Ratings), ($I_{\text{drain}} = 2 \text{ mA}$) | | | +36 V |
| Digital Input Voltage (Absolute Maximum Ratings) | -32 | | +32 V |
| Analog Input Voltage (Absolute Maximum Ratings) | -32 | | +32 V |