

# Template:MTB100 Electrical characteristics

## Electrical characteristics

| Characteristic description  | Value |      |                     |
|---|-------|------|---------------------|
|   | Min.  | Typ. | Max. Unit           |
| Supply Voltage:   |       |      |                     |
| Supply Voltage<br>(Recommended Operating Conditions)                      | 6     |      | 30 V                |
| Digital Output (Open Drain grade):  |       |      |                     |
| Drain current (Digital Output OFF)  |       |      | 120 $\mu$ A         |
| Drain current<br>(Digital Output ON, Recommended Operating<br>Conditions) | 0.1   |      | 0.5 mA              |
| Static Drain-Source resistance (Digital Output<br>ON)                     |       |      | 300 m $\Omega$      |
| Digital Input:  |       |      |                     |
| Input resistance (DIN1)   | 47    |      | k $\Omega$          |
| Input voltage<br>(Recommended Operating Conditions)                       | 0     |      | Supply<br>voltage V |
| Input Voltage threshold (DIN1)  |       | 2.5  | V                   |
| Analog Input:   |       |      |                     |
| Input voltage<br>(Recommended Operating Conditions)                       | 0     |      | 30 V                |
| Input resistance  |       | 150  | k $\Omega$          |
| Measurement error on 12 V   |       | 3    | %                   |
| Additional error on 12 V  |       | 360  | mV                  |
| Measurement error on 30 V   |       | 3    | %                   |
| Additional error on 30 V  |       | 900  | mV                  |

**✘ Analog Input error margin can increase if temperature varies.**

## Absolute maximum ratings

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

|   |     |       |
|---|-----|-------|
| Digital Input Voltage<br>(Absolute Maximum Ratings) | -32 | +32 V |
| Analog Input Voltage<br>(Absolute Maximum Ratings)  | -32 | +32 V |