

Template:MTB100 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 μ A
Drain current (Digital Output ON, Recommended Operating Conditions)	0.1		0.5 mA
Static Drain-Source resistance (Digital Output ON)			300 m Ω
Digital Input:			
Input resistance (DIN1)	47		k Ω
Input voltage (Recommended Operating Conditions)	0		Supply voltage V
Input Voltage threshold (DIN1)		2.5	V
Analog Input:			
Input voltage (Recommended Operating Conditions)	0		30 V
Input resistance		150	k Ω
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 (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