

Template:MTB100 Electrical characteristics

Electrical characteristics

Characteristic description	Value		
	Min.	Typ.	Max.
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	mA
Static Drain-Source resistance (Digital Output ON)		300	mΩ
Digital Input:			
Input resistance (DIN1)	47		kΩ
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	kΩ
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.
Supply Voltage (Absolute Maximum Ratings)	-32		+32
Drain-Source clamp threshold voltage (Absolute Maximum Ratings), ($I_{drain} = 2$ mA)			+36

Digital Input Voltage
(Absolute Maximum Ratings) -32 +32 V

Analog Input Voltage
(Absolute Maximum Ratings) -32 +32 V