

Template:FMB2 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	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
Input Voltage threshold (DIN2, DIN3)	2.5	2.7	3
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), ($I_{drain} = 2 \text{ mA}$)			+36	V
Digital Input Voltage (Absolute Maximum Ratings)	-32		+32	V
Analog Input Voltage (Absolute Maximum Ratings)	-32		+32	V