

# Template:FMA1 Electrical characteristics

## Electrical characteristics

Characteristic description	Value		
	Min.	Typ.	Max.
<b>Supply Voltage:</b>			
<b>Supply Voltage (Recommended Operating Conditions)</b>	5		30
			V
<b>Digital Input:</b>			
<b>Input resistance (DIN1)</b>	120		kOhm
<b>Input resistance (DIN2, DIN3)</b>	15		kOhm
<b>Input Voltage (Recommended Operating Conditions)</b>	0		Supply voltage
			V
<b>Input Voltage threshold (DIN1)</b>		7.5	V
<b>Input Voltage threshold (DIN2, DIN3)</b>		2.6	V
<b>Digital Output (Open Drain grade):</b>			
<b>Drain Current (Digital Output OFF)</b>		120	uA
<b>Drain Current (Digital Output ON, Recommended Operating Conditions)</b>		300	mA
<b>Static Drain-Source Resistance (Digital Output ON)</b>		300	mOhm
<b>Analog Input:</b>			
<b>Input voltage (Recommended Operating Conditions), Range 1</b>	0	10	V
<b>Input resistance, Range 1</b>		120	kOhm
<b>Measurement error</b>		4.4	%
<b>Additional error</b>		±26	mV
<b>Input Voltage (Recommended Operating Conditions) Range2</b>	0	30	V
<b>Input resistance, Range2</b>		146.7	kOhm
<b>Measurement error</b>		4	%
<b>Additional error</b>		±40	mV
<b>Output Supply Voltage 1-Wire:<sup>3</sup></b>			
<b>Supply voltage</b>	3.3	3.6	V
<b>Output inner resistance</b>		10	Ohm
<b>Output current (<math>U_{out} &gt; 3.0</math> V)</b>		30	mA
<b>Short circuit current (<math>U_{out} = 0</math>)</b>		130	mA

Analog Input error margin can increase if temperature varies. If Analog input is not connected

FMA1YX will still measure certain numbers and it cannot be 0. This measurement is influenced by hardware components.