

Description

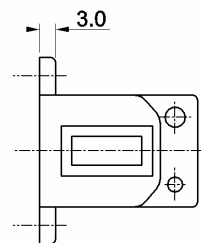
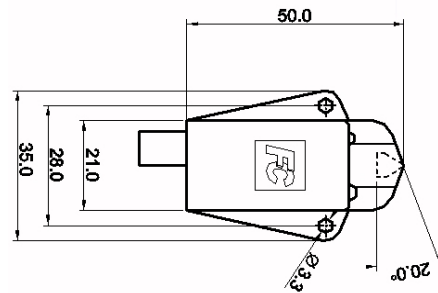
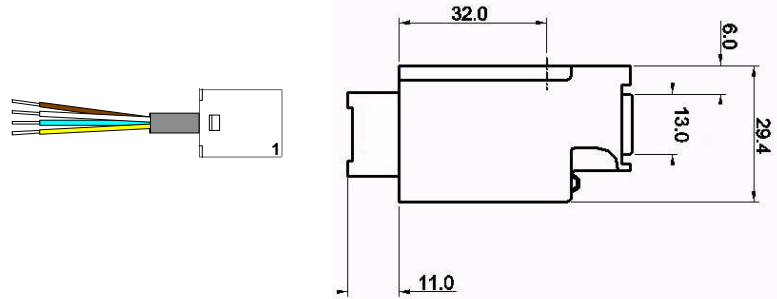
The MPS 10201 Spécif.424591 is a sensor which provided a signal with a frequency proportional to the step of torsion and the tape speed. It makes possible to control the step of torsion and/or its regularity in the operations of ends assembly.

Electrical characteristics

Parameters	Conditions	Min	Typ	Max
Power supply (V)		18	24	30
Power consumption (mA)	For 24 V DC and 25°C Output not connected		3.5	4.5
Low level output tension (V)	Output current < 2mA	-	0,9	1,5
Output tension (V)		-	-	55
Limit output current (mA)	Tension sur la sortie < 32 V	10	-	-

Setting

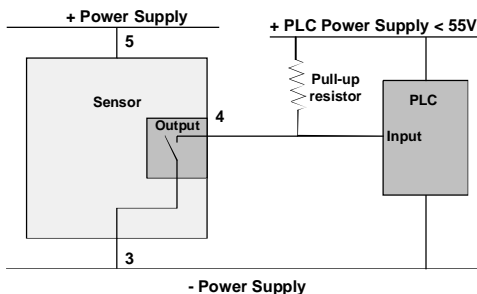
- Brown wire : + Power supply **5**
- White wire : Digital output **4**
- Blue wire : - Power supply **3**
- Yellow wire : Analogic signal **2**
- Not connected **1**



Ceramic material : Ti3O2

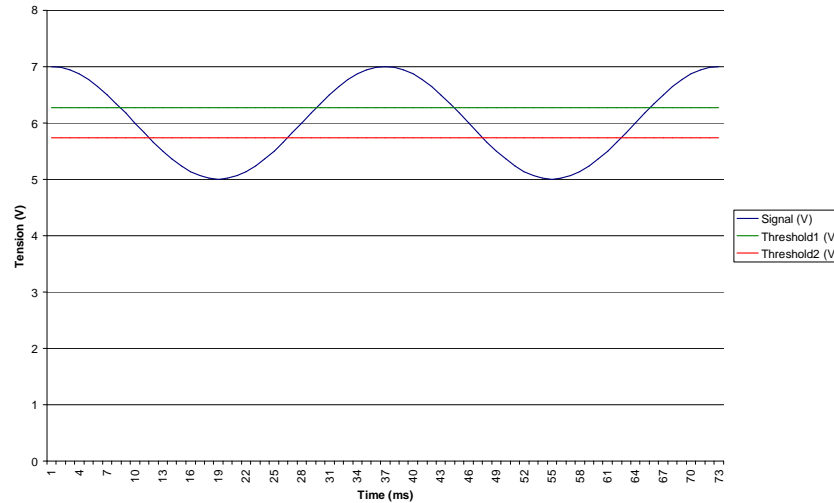
Cabling

NPN Output



Signals description

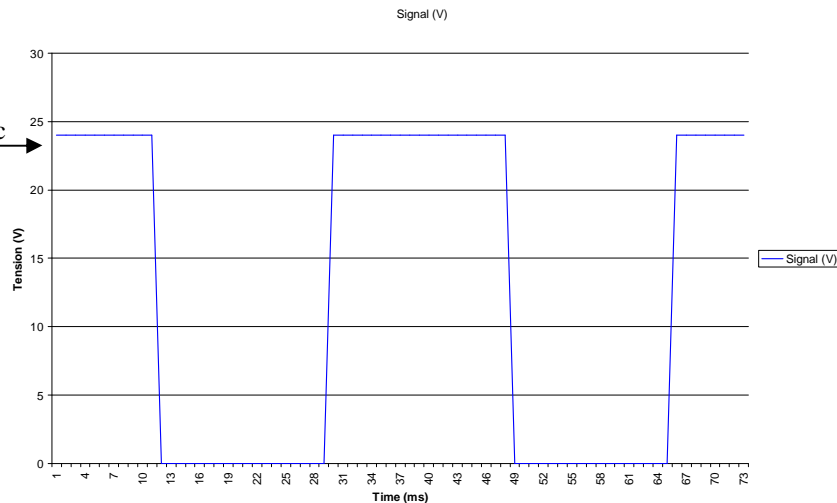
Analogical signal



The analogical signal is a dynamic picture of the frame of the yarn. It is similar as a sinus curve. The frequency of the signal is : $F = (2 * P * V) / 60$
P = Torsion step, tr/m
V = Speed of the yarn, m/mn
Maximum amplitude of the signal : 6V peak to peak

Logical signal

Example with pull-up resistor connected to PLC power supply = 24Vdc



The logical signal is a transformation of the analogic signal. When the analogic signal tension is :
 - higher than the Treshold1, the logical output has high level (*)
 - lower than the Treshold2, the logical output has low level

* BE CAREFUL : It is a description of the signal transformation, the reality could be negated.