



## To20p: Counter / Totalizer / Rate meter

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### *General Description*

The To20p is 6 digit totalizer counter and 4 digit rate meter. Suitable for been used on counting and production control.

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### *Characteristics*

#### *Inputs*

- Pulses NPN, PNP, Mechanical switch, High and low Voltages, Magnetic pickup.
- Two additional external inputs (dry contact) programmable as reset functions.

#### *Counter display*

- 6x High bright 14.5mm height red digits totalizer. (upper display)
- Continuous memory, stores last reading.
- Counter pre-scale, adjust for any engineering unit.

#### *Rate meter display*

- 4x 9mm digits. ( Lower display)
- Pulses counting is done simultaneously measuring the time period between successive pulses. In this form rapid and accurate readings are obtained in the lower frequencies range where are obtained mostly from the period. It is not needed to set any «time windows» for counting.
- Separate rate meter pre-scale.
- Registers maximum and minimum readings for the rate.

#### *Alarms*

- Pre set values can be assigned to the totalized count or the rate.
- Two output relays, with two programmable alarms each ( high and low)
- Latch and standby functions.

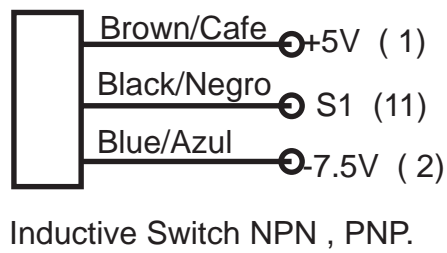
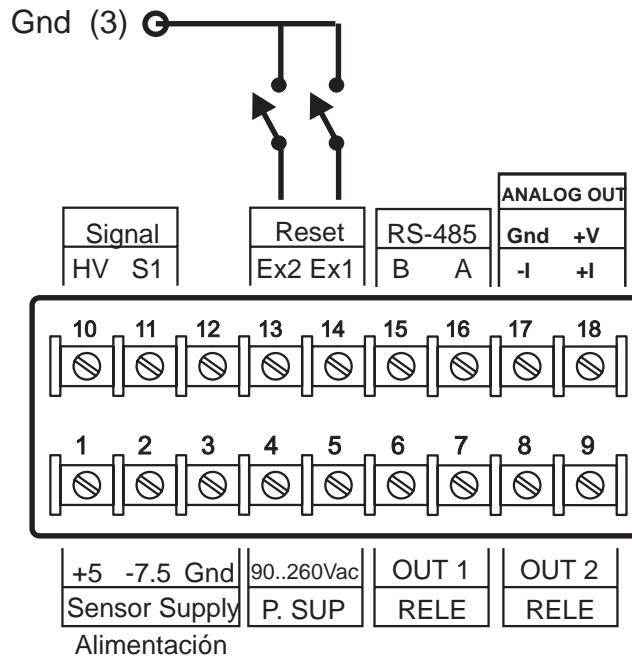
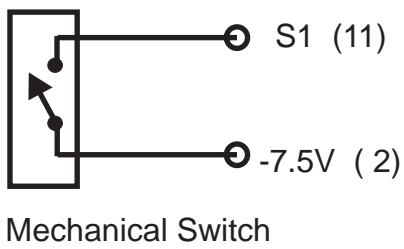
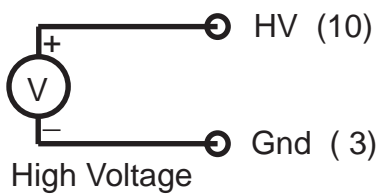
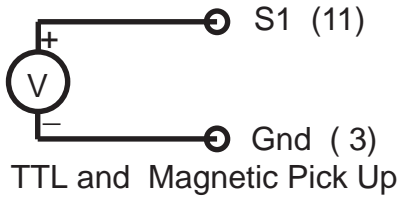
#### *Outputs and Communications*

- RS485 Modbus RTU serial communications reports data to a PC or PLC.
- Galvanically isolated analog outputs for the rate meter: active loop 4..20ma ,0...10V, passive loop 4..20ma.

#### *Configuration.*

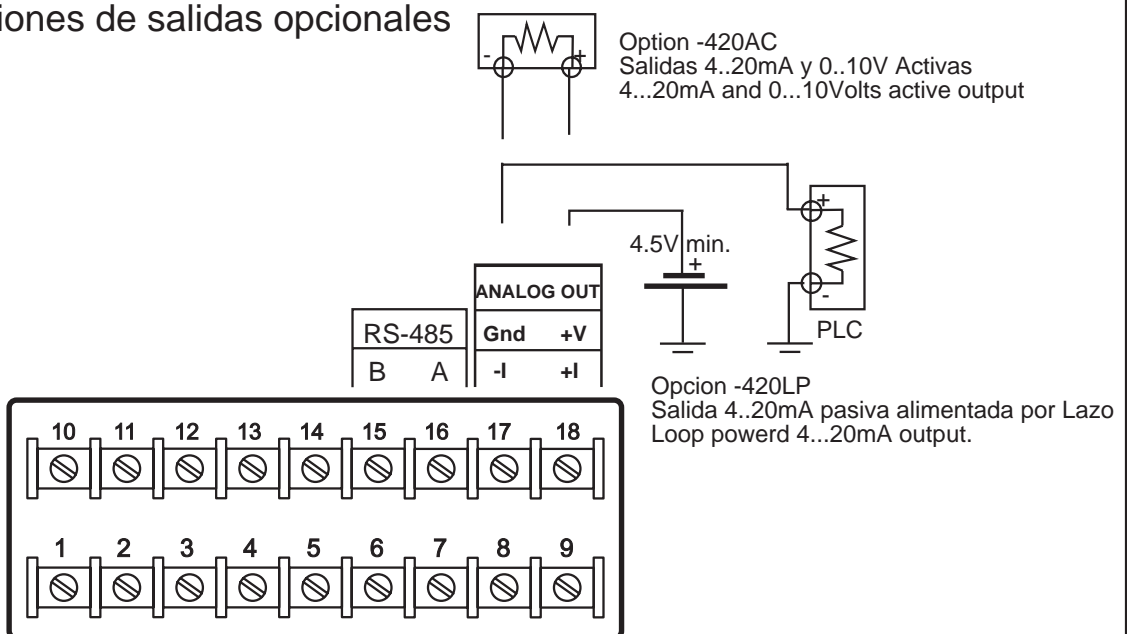
- From a PC compatible by means of RPS software.
- From frontal push buttons.

# TO20P Electrical connections



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## Conexiones de salidas opcionales



420OUT\_00

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## TECHNICAL SPECIFICATIONS

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**INPUTS** Pulse inputs: NPN, PNP, Mechanical switch, TTL, High voltage (500 V) and magnetic pick up ( 200mVAC min )  
Provides feeding for input sensor, +5, -7.5 Vdc, 30mA max.  
Frequency range 0.01Hz ... 50KHz

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**DISPLAY** Allows engineering units with decimal places for totalized count and rate display.  
Register max/min rate readings.  
Counter: 6 digits Display (14mm), range 0...999999  
Rate: 4 digits (9mm), range -999... 9999

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**ALARMS:** 2 independent alarm outputs, each one with high and/or low alarm, with absolute or relative set points.  
Programmable alarm latch and "standby" that inhibits alarms when modifying set points).  
Can be assigned independently to the rate or counter.

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**OUTPUTS:** Relays, 2 outputs for alarms 250VAC/ 3A., normally open or normally close by software.

**Optional:**

-420L 4... 20 mA, loop powered, Vdrop 4.5V max. opto isolated (5kV).  
-420A 4..20ma/0-10V Active loop, opto isolated (5kV).  
-RS485 modbus RTU serial communications, opto isolated (5kV).

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**POWER SUPPLY:**

Current mode switching power supply.  
Versions:  
85...260 Vac, 6 W, 45...65 Hz.  
20...60 VDC, 6 W, (optional)

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**CONSTRUCTION:**

Aluminum and Polycarbonate; IP65  
Total Dimension: DIN 1/8; 96 x 48 x 135 mm.  
Panel cut: 92 x 45 mm.  
Weight: 300 grams.  
Operation temperature: 0 ... 50 °C.

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**CE DIRECTIVES:** 2006/95/EC (LVD) Low Voltage Directive  
2004/108/EC (EMC) Electromagnetic compatibility directive

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**STANDARDS:** Safety: IEC61010-1:2010  
EMC immunity: EN61326-1:2006 Industrial locations.  
EMC emissions: EN61326-1:2006 Class B.

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## PART CODES:

Part number must be done selecting the following alternatives.

TO20P

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-AC : 85...260 Vac, 6 W, power supply.

-DC : 18...60 Vdc, 6 W power supply.

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OPTIONAL

-420L :4..20ma pasive loop

-420A :4..20ma active, includes also 0..10Vdc

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OPTIONAL

-RS485 :modbus RTU serial communications

For example:

TO20P-AC

AC power supply , without any optional output.

TO20P-DC-RS485

DC power supply and modbus RTU serial communications.

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## FOR MORE INFORMATION CONTACT US:

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