

B2K

Bidirectional 8 digit multifunction counter - DIN 96x48



REEL TORINO data sheet

DL3UK0008A0

SPECIFICATIONS

- ✓ **High counter capacity: maximum 100.000.000 pulse**
- ✓ **Two input counter: UP, DOWN, UP & DOWN max 10 KHz**
- ✓ **Input signals from: NPN, PNP, potential free mechanical contact**
- ✓ **Pulse-weight programmable for totaliser**
- ✓ **Double analog outputs 4..20mA & 0..10Vdc**
- ✓ **Serial communication: Field bus MODBUS RTU (RS485)**

VERSIONS

The following versions are available:

- Indicator (2 preselections max): B2K_ _
- Indicator with double analog output (2 preselection max): B2K_ _T
- Indicator with MODBUS RTU port (2 preselections max): B2K_ _D

APPLICATION & PERFORMANCE

Dosing, predetermination, batch controls, visual display, control of linear and angular displacements: here only some of the possible applications of B2K series .

B2K programmable bidirectional pulse counters can be applied in all industrial environments such as water distributions, paper factories, mechanical, iron, food, chemical, pharmaceutical industries and more. B2K units allow the acquisition, totalization and predetermination of signals coming from industrial sensors such as photoelectric cells, proximity switches, incremental encoders (angular positions), optical lines (linear positions), mechanical limit switches, free contacts .

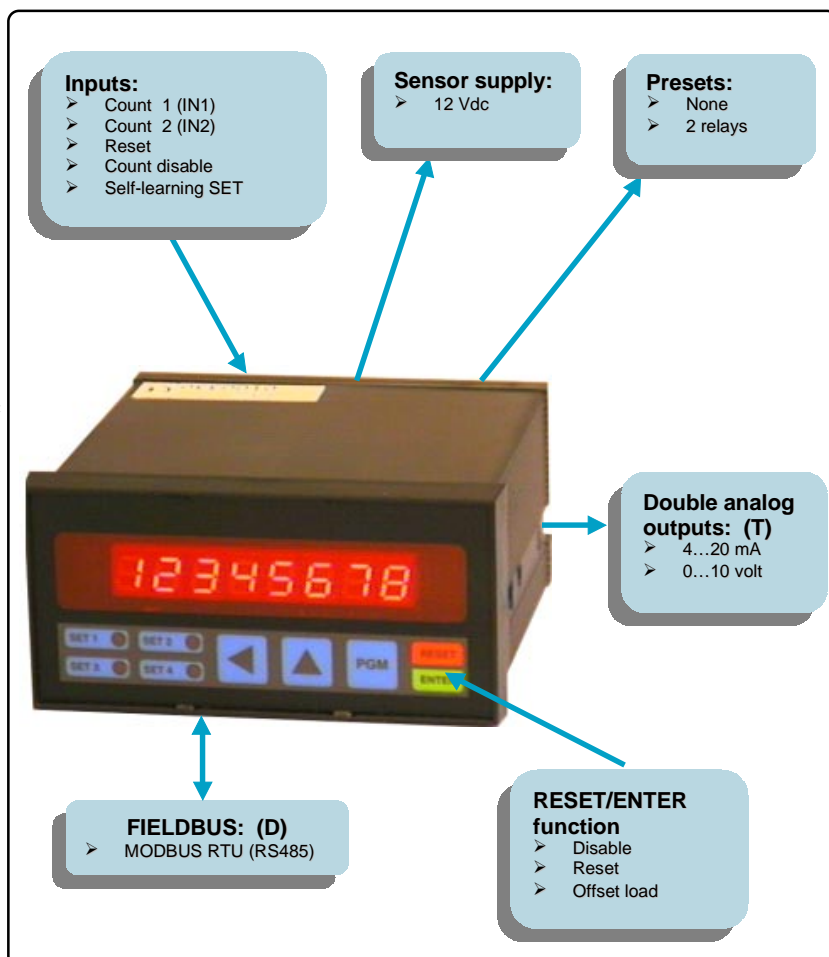
Through two inputs, it is possible to carry out incremental (UP) and decremental (DOWN) counts, with the UP/DOWN (FIFO) double possibility, with the totalized amount of pulses received from the two inputs.

It is possible to assign a pulse weight in order to adjust the count ratio for: volumetric counters (pulses per litre), meter counters (development/revolution); application of encoders (or sensors) on existing mechanical components (the mathematic resolution allowed is equal to 1/999999).

The offset function (preset) allows to force the count to a value different from zero.

Should the power supply be off, the count is kept by an EEPROM indelible memory .

A simple programming by a 4-key touch-panel keyboard and a highly efficient 8-digit LED display make the device easy to use .



Reliability

B2K

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TECHNICAL DATA

PACKAGE

Case: panel mount 96x48 mm frontal IP54
 Cutout dimension: 92x45 mm; depth: 100 mm
 Case material: Noryl
 Keyboard: 4 membrane push buttons
 Connections: by extractable terminal block

DIGITAL INPUT

Signal: NPN or PNP configurable
 Voltage: 10...30Vdc; impedance: 2200 ohm
 Sensor supply: 12 Vdc – maximum 60 mA
 IN1, IN2: count input maximum 10KHz speed (debouncing filtre programmable)
 RST1: zeroing input or offset loading
 RST2: SET self learning input
 GT: count block input

COUNTER AND DISPLAY

Display (red led): 8 digit max displayed value
 -9999999...9999999
 Character high: 7 mm
 Decimal point: programmable
 Counter: ± 31 bit

POWER SUPPLY

Power supply: 24, 115, 230Vac, 24Vdc [1], 24VDCI [2]
 Consumption: max 3,3 VA (3,3 W)
 Tolerance: ± 10 %; frequency (AC): 50/60 Hz
 Data storage memory: EEPROM static memory

AMBIENTAL CONDITIONS

Operating temperature: -10 ÷ 50 °C
 Relative humidity: 0...95% not condensing
 Storage temperature: -25 ÷ 70 °C

PRESELECTION AND OUTPUTS

Preselections: 2 relays 5A / 250V
 Cycle: manual or automatic selectable
 Automatic cycle time: 0,01...99,99 sec.
 Cunt direction: increasing / decreasing

DOUBLE ANALOG OUTPUT (T option) [3]

Proportional to display value; start of scale and end of scale position programmable
 Signals: 0-10Vdc (minimum load 1Kohm)
 4-20mA (maximum load 250 ohm)
 Resolution: 2000 points
 Accuracy: 0,01 %;
 Linearity: 0,0025 %

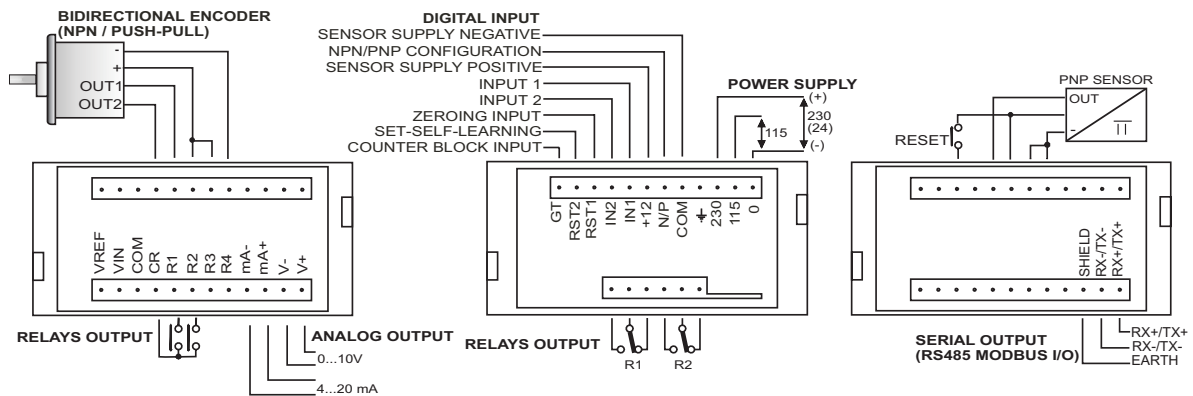
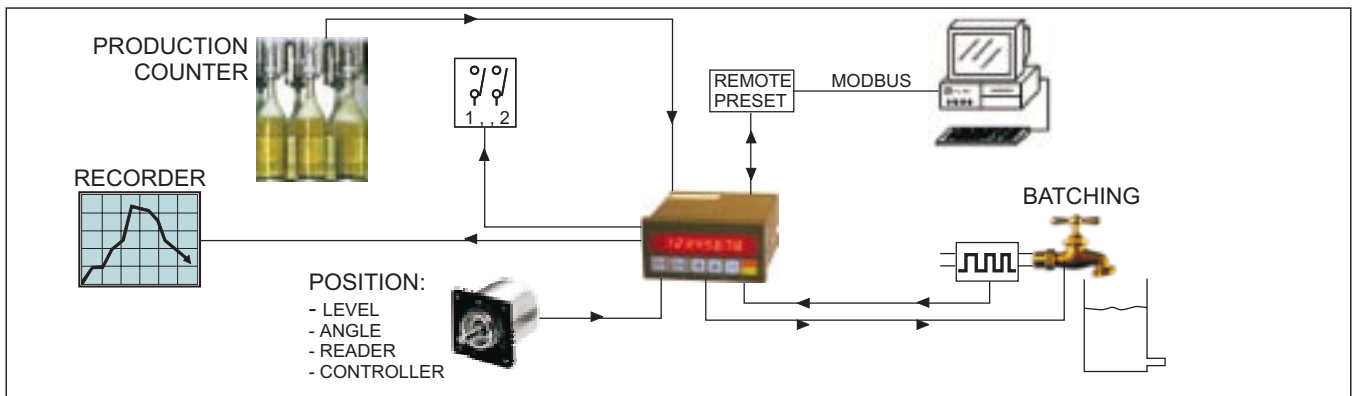
RS485 SERIAL PORT - MODBUS (D option) [3]

Communications protocol: MODBUS RTU
 Profile: all parameters
 Baud rate: 300...19200 baud
 Address: range 1... 247 (0 – broadcast)
 Configuration: 8 bit data; parity none; 1 stop bit

CONFORMITY TO CEE GUIDELINES

Directive CEE 93/68
 CEE 89/336 (EMC)
 CEE 73/23 (BT)

- [1] 24Vdc power supply not galvanically insulated version: negative input signal short-circuit to negative power supply
 [2] 24Vdc power supply galvanically insulated version
 [3] the above mentioned technical references are related to the B2K versions chosen.



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Reliability