

B1X

Bidirectional 5 digit multifunction counter - DIN 48x48



REEL TORINO data sheet

DL3UK0004A0

SPECIFICATIONS

- ✓ **Two inputs counter: UP, DOWN, UP & DOWN max 5 KHz**
- ✓ **Input signals from: NPN, PNP, potential free mechanical contact**
- ✓ **Pulse weight programmable for totaliser**
- ✓ **2 presets**
- ✓ **Ultra-compact-line**
- ✓ **Low-cost**

VERSIONS

The following versions are available:

- Indicator: B1X_0
- Indicator with two preselections: B1X_2

APPLICATION & PERFORMANCE

Dosing, predetermination, batch controls, visual display, control of linear and angular displacements: here only some of the possible applications of B1X series .

B1X programmable bidirectional pulse counters can be applied in all industrial environments such as water distribution, paper factories, mechanical, iron, food, chemical, pharmaceutical industries and more. B1X 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 .

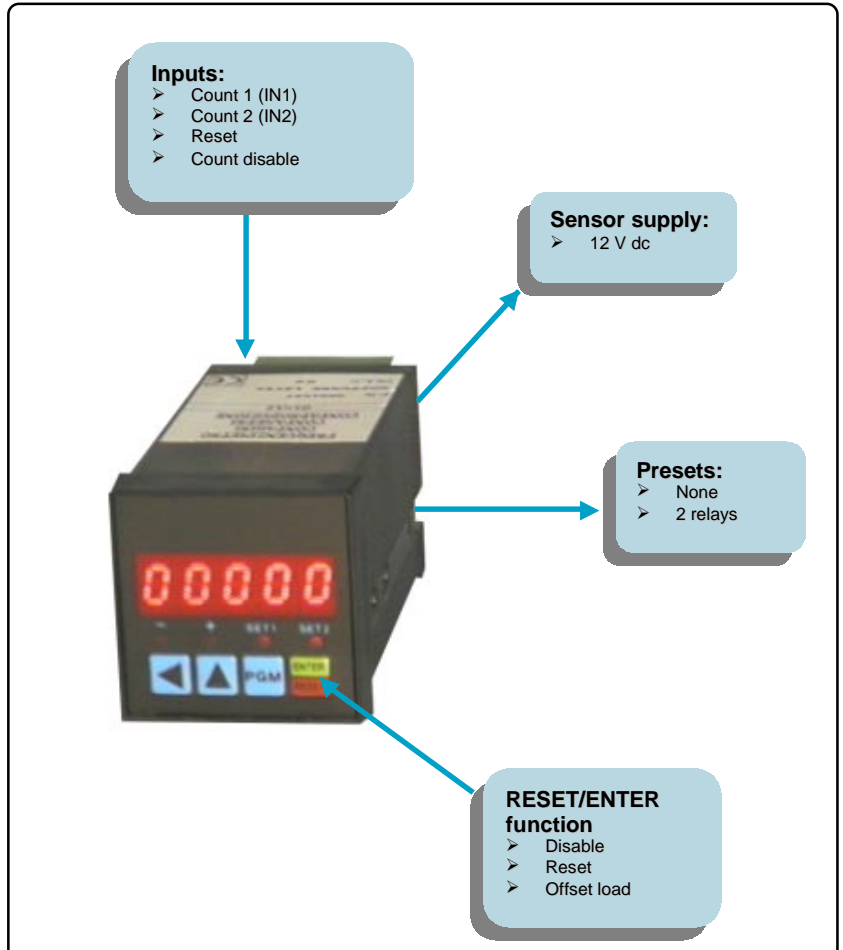
Through two inputs, it is possible to carry out incremental (UP) and decremental (DOWN) counts, with the UP/DOWN (FIFO) double possibility, with the totalized amount of pulses received from the two inputs.

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 1/99999).

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 5-digit LED display make the device easy to use .



Reliability

B1X

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TECHNICAL DATA

PACKAGE

Case: panel mount 48x48 mm frontal IP54
 Cutout dimension: 45x45 mm; depth: 100 mm
 Case material: Noryl
 Keyboard: 4 membrane push buttons
 Connections: by two extractable terminal block 6 pole

DIGITAL INPUT

Signal: NPN [1]
 Voltage: 10...30Vdc; impedance: 2200 ohm
 Sensor supply: 12 Vdc – maximum 30 mA
 IN1, IN2: count input maximum 5KHz speed (debouncing filtre programmable)

RST1: zeroing input or offset loading
 GT: count block input

COUNTER AND DISPLAY

Display (red led): 5 digit, max displayed value ±99999
 Character high: 9 mm
 Polarity indication (+ / -): by two separate led
 Decimal point: programmable
 Counter: ± 31 bit

POWER SUPPLY

Power supply: 24, 115, 230Vac, 24Vdc [2], 24VDCI [3]
 Consumption: max 1,5 VA (1,5 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

[1] PNP settable by internal link, or specified at order (es. B1X12/PNP)
 [2] 24Vdc power supply not galvanically insulated version: negative input signal short-circuit to negative power supply
 [3] 24Vdc power supply galvanically insulated version

PRESELECTION AND OUTPUTS

Preselections: 2 relays SPST 5A / 250V
 Cycle: manual or automatic selectable
 Automatic cycle time: 0,1...99,9 sec.
 Count direction: increasing / decreasing
CONFORMITY TO CEE GUIDELINES
 Directive: CEE 93/68
 CEE 89/336 (EMC)
 CEE 73/23 (BT)

WORKING CYCLES

At the zero setting command the display will be zeroized (or setted at offset value) and the output relays are de-energized; the totalised value will increase of one unit (or at pulse weight selected) at each impulse at the counter input.

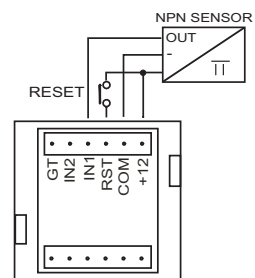
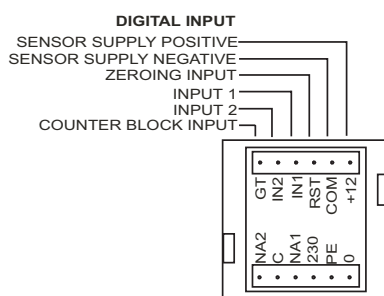
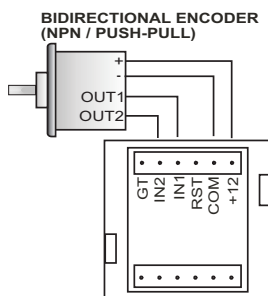
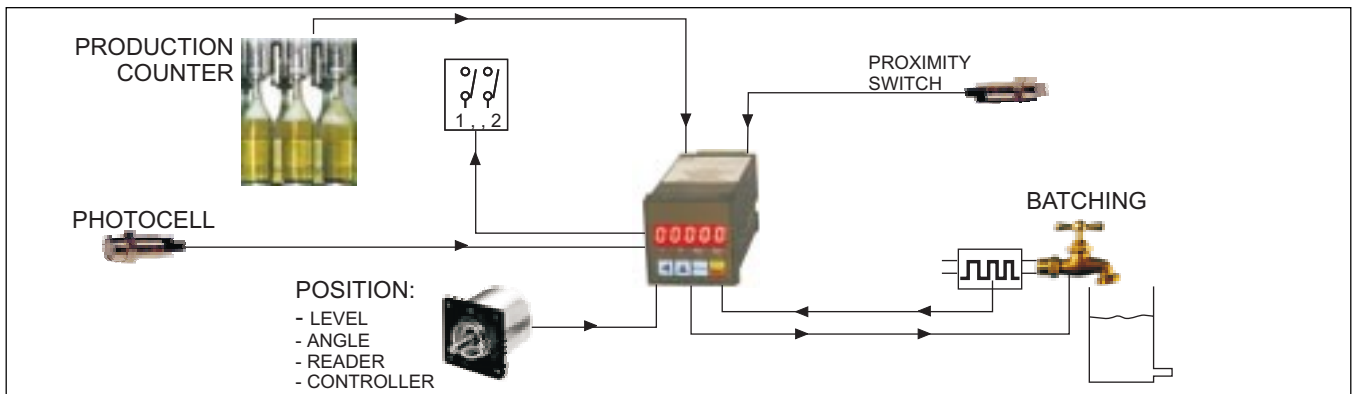
- Manual cycle

At the reaching of the set 1 preselection value, the output 1 relay is energized; at the reaching of the set 2 preselection value, the output 2 relay is energized.

- Automatic cycle

At the reaching of the set 1 preselection value, the output 1 relay is energized; at the reaching of the set 2 preselection value, the output 2 relay is energized for a setting time from 0.1 to 99.9 seconds; the display is immediately zeroized and the impulse counter is already ready for the execution of a new cycle.

The possible impulses given during the relay energizing time are counted.



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