

# G1X

5 digit - frequency meter, revolution meter, production meter, meter counter, liter counter - DIN 48x48



REEL TORINO data sheet

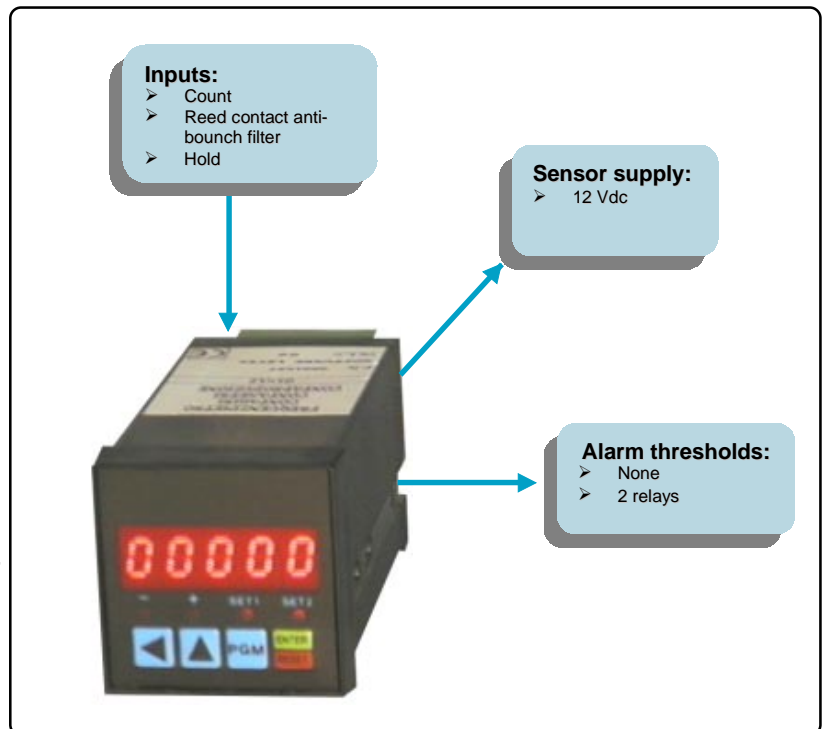
DL3UK0009A0

## SPECIFICATIONS

- ✓ **Frequency measuring range: from 0,001 Hz up to 5 KHz**
- ✓ **Measuring rate conversion selectable: rate per second, minute, hour**
- ✓ **Easy programmable scale range**
- ✓ **Versions: none or 2 relays**
- ✓ **Ultra-compact-line**
- ✓ **Low-cost**

## VERSIONS

The following versions are available:  
-Indicator: G1X\_0  
-Indicator with two thresholds alarm: G1X\_2



## APPLICATION & PERFORMANCE

G1X indicators have a wide field of application for speed (linear and angular), flow rate and flow measurement and control. They can be applied in the sector of plastic materials (extruders), in water distributions, paper factories, merry-go-round factories, mechanical and food industries (pasteurizing systems), etc.

Through the programs available, it is possible to easily select the use of the device as a frequency meter (reading of pulses in a constant time interval); revolution counter (number of revolutions of a shaft in the preselected unit of time); meter counter (speed of a film); production counter (i.e. measurement of the production per hour); litre counter (direct flow rate).

The survey is made through the measurement of the period or frequency of pulse signals coming from industrial sensors such as photoelectric cells, proximity switches, monodirectional incremental encoders, reed contacts.

The resolution may be chosen for  $x 0,01 - x 0,1 - x 1$ .

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

## OPERATING PRINCIPLE

According to the selected programs, the device works in one of the following modes:

### - Period meter Mode

The device measures the period elapsing between two subsequent pulses, then executing speed calculation, according to the programs selected.

Thanks to this principle, it is possible to carry out acquisitions at very low frequencies (even lower than 1 Hz). It is therefore advisable to use this kind of acquisition for frequencies not higher than 1000 Hz.

If the device is matched to a phonic wheel, make sure that the notches are equidistant.

### - Frequency meter Mode

The device counts the pulses getting to the input in a time interval (programmable within a range 0,001...99,999 seconds).

The reading scale can be freely chosen through a factor of division and a factor of multiplication of the input frequency.

It is advisable to use this type of acquisition if the input is more than 1000 Hz or in systems that are not perfectly stable.



Reliability

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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 extractable terminal block 6 pole

### DIGITAL INPUT

Signal: configurable NPN [1]  
 Voltage: 10...30Vdc; impedance: 2200 ohm  
 Sensor supply: 12 Vdc – maximum 30 mA  
 IN1: count input maximum 5KHz speed  
 IN2: REED contact filter  
 RST1: hold input

### COUNTER AND DISPLAY

Display (red led): 5 digit, max displayed value 0...99999  
 Character high: 9 mm  
 Resolution: x 100; x 10; x 1; x 0,1; x 0,01  
 Zeroing: 0,5...999 seconds  
 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

### PROGRAMMABLE PARAMETERS

Pulses per revolution: 1...99999  
 Time unit: seconds, minute, hours  
 Lengh unit: mm, cm, dm, m  
 Wheel diameter: 0,01...999,99 mm  
 Correction parameter: 1...99999

### ALARM THRESHOLDS AND OUTPUTS

Alarms: 2 relays SPST 5A/250V  
 Differential: 1...99999

### CONFORMITY TO CEE GUIDELINES

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

[1] PNP settable by internal link, or specified at order (es. G1X12/PNP)

[2] 24Vdc power supply not galvanically insulated version: negative input signal short-circuit to negative power supply.

[3] 24 Vdc power supply galvanically insulated version.

