



# PULSE ISOLATOR

## TYPE 112-51

- Performs input / output signal level change and pulse stretching
- Caters for a wide range of input types
- Choice of voltage pulse, current pulse, relay or open collector outputs
- Isolated output
- Will convert from contact closure to pulse or vice versa
- Pulse splitter option (relay output only)

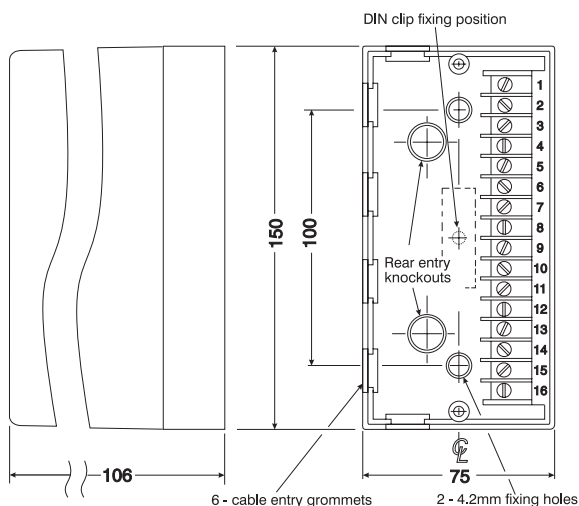
The Pulse Isolator will condition a variety of types of pulse input signals and provide a clean, optically isolated and shaped pulse or relay contact output. A pulse splitter version with two relay outputs is also available.

### TYPICAL APPLICATIONS

- Pulse isolation
- Pulse stretching e.g. to suit longer pulse widths required by PLCs
- Cleaning up noisy signals or contact bounce on mechanical switches
- Level change e.g. millivolt input to power output signal via relay contacts.
- Pulse splitting - providing two isolated pulse outputs



### DIMENSIONS



### Information Required When Ordering

- Input Signal Type (see specification)
- Type of Output (see specification overleaf)
- Desired Output Pulse Width (if standard 60ms is not required).
- Transducer Power Supply
- Supply Voltage and Frequency
- Whether Front Panel Accessible Trigger Control is Required

## SPECIFICATION

### INPUT PULSE RATE

0 - 10kHz.

### INPUTS

(the required type to be specified at the time of order)

- Contact closure
- Change-over contacts (high bounce rejection)
- Voltage level change (10mV minimum, 50V maximum, sine, square or triangular)
- Open collector transistor
- Proximity switches, turbine meters, etc.
- Current pulse e.g. 1-3mA, etc.

### INPUT IMPEDANCE

100k ohms (voltage change signals).

### TRIGGER LEVEL

This is adjusted by a 15 turn potentiometer.

NB Optionally accessible through the front cover.

When the trigger level is correct, the lower LED will flash at the input signal frequency.

### INPUT PROTECTION

Voltage change inputs, can withstand 250V RMS.

### TRANSDUCER POWER SUPPLY

An optional supply is available for powering input signal equipment. Maximum power available is 12 Volts at 10mA. (Default setting 12V).

### OUTPUT OPTIONS

(the required type to be specified at the time of order)

- Optically isolated open collector transistor,
- 24 Volt pulse of duration 60ms
- Relay change-over contact (FSD = 10Hz max).  
Relay contacts are rated at:-  
5A @ 250V AC resistive or  
2.5A @ 24V DC resistive.
- Pulse splitter - as option 'c' but with two sets of changeover contacts

#### Notes

- Relay Output is not available together with open collector output
- Other pulse output voltages (e.g. 5V) and pulse widths are available to order.

### POWER SUPPLY

LED indication of power on.

**Standard AC:** 110, 220 or 240V  $\pm 10\%$  50/60Hz; 5VA

Fuse (internal) 100mA quick-blow (20 x 5mm)

**Optional DC:** 12, 24 or 48V -10% to + 20%; 3.5W

Fuse (internal) 250mA anti-surge (20 x 5mm).

### TEMPERATURE RANGE

Operating: - 10 to + 60°C

Storage: - 20 to + 70°C



**WARNING: REFER TO USER GUIDE FOR SAFETY INSTRUCTIONS - THIS UNIT CAN BE MAINS POWERED AND ALL INPUTS TO IT MUST BE ISOLATED FROM DANGEROUS VOLTAGES BEFORE THE FRONT COVER IS REMOVED. LIVE TERMINALS WILL BE EXPOSED.**

Continuous development may necessitate changes in these details without notice

### ACCURACY

Error  $\pm 1$  output pulse.

### ISOLATION

Input and output are isolated from each other and from the power supply. Max. voltage 250 V RMS or 400 V DC. Resistance  $\geq 50 \times 10^6$  ohms measured at 1000 V DC.

### SAFETY & EMC

Safety: EN61010-1 Emissions: EN50081-1

Immunity: EN50082-1 CE certified

### WEIGHT

Approximately 750 grams.

### TERMINAL CONNECTIONS



**WARNING:** these details are provided for pre-sales information only. Installation must be carried out in accordance with the 112-51 User Guide

#### Inputs

- Transducer Supply (option)
- Input Signal (+)
- Input 0V
- Normally Closed c/o Switch Contact
- Normally Open c/o Switch Contact

Options  
see  
specification

#### Outputs

- (see pulse splitter option)
- +V
- Output Signal
- Output 0V
- Normally Open
- Common
- Normally Closed
- Normally Closed
- Common
- Normally Open
- (no connection)

Counter  
Output Option  
(24v 60ms pulse)

Transistor  
Output Option  
(Open Collector)

Relay  
Output  
Option

Pulse Splitter  
Option  
Relay Output 2

#### Supply

- Earth
- Neutral
- Line

AC  
Mains  
Supply

Earth  
Negative (-)  
Positive (+)

DC  
Supply  
Option

#### Please Note:

Options are only available if specified at time of order.

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