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

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)
  a) Contact closure
  b) Change-over contacts (high bounce rejection)
  c) Voltage level change (10mV minimum, 50V maximum, sine, square or triangular)
  d) Open collector transistor
  e) Proximity switches, turbine meters, etc.
  f) 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)
  a) Optically isolated open collector transistor,
  b) 24 Volt pulse of duration 60ms
  c) Relay change-over contact (FSD = 10Hz max).
     Relay contacts are rated at:
     5A @ 250V AC resistive or
     2.5A @ 24V DC resistive.
  d) Pulse splitter - as option ‘c’ but with two sets of changeover contacts

Notes:
  1. Relay Output is not available together with open collector output
  2. 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 ±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

ACCURACY
Error ±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 ≥ 50 x 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
1 Transducer Supply (option)
2 Input Signal (+)
3 Input 0V
4 Normally Closed c/o Switch Contact
5 Normally Open c/o Switch Contact

Outputs
6 (see pulse splitter option)
7 +V
8 Output Signal
9 Output OV
10 Normally Open
11 Common
12 Normally Closed
13 (no connection)

Supply
14 Earth
15 Neutral
16 Line

Options
Counter Output Option (24V 60ms pulse)
Relay Output Option (Open Collector)
Pulse Splitter Option

Please Note:
Options are only available if specified at time of order.

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.