



# PULSE GENERATOR

## TYPE 112-52

- Variable frequency output
- Optional relay or open collector outputs
- Local or remote set-point

The 112-52 provides a pulsed output signal for testing, simulation and other applications requiring a variable set-point frequency.

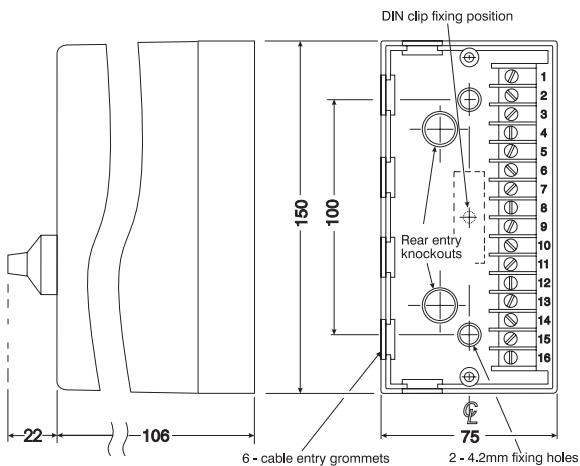
The pulse rate of the output signal is set by a ten-turn front panel dial. As an option, the pulse rate may be controlled by a remote potentiometer.

### TYPICAL APPLICATIONS

- Set-points for vibration test rigs
- Simulation of metering pulses
- Dosing pump and sampling applications



### DIMENSIONS



### Ordering information

- Type of output (see specification overleaf)
- Output full scale pulse rate
- Desired output pulse width
- Supply voltage and frequency

## SPECIFICATION

### SET-POINT CONTROL

Potentiometer with ten-turn dial graduated 0-100 (% of FSD) with locking mechanism. Optionally the instrument can be configured for use with a remotely mounted set-point potentiometer.

### OUTPUT OPTIONS

*The type required must be specified at the time of order.*  
(Other pulse output voltages (e.g. 5V) and pulse widths available to order.)

- a) Optically isolated open collector transistor.
- b) 24 Volt pulse of duration 60ms
- c) Relay change-over contact. (FSD=10Hz Max)

*Notes (i) Only one output type is normally available. It is possible, however, to have concurrently both a relay output and 24V pulse output. (ii) The relay output is not available with remote set-point option.*

### PULSE RATE

Calibrated as required within the following full scale limits:

- Minimum: 0.0012 pulses per second
- Maximum: 5000 pulses per second

### CALIBRATED ACCURACY

Set at 100% to be within  $\pm 0.1\%$  FSD.

### LINEARITY ERROR

$\leq \pm 0.35\%$  FSD.

### STABILITY

Over 24 hours  $\pm 0.05\%$  FSD.  
Over 1 year  $\pm 0.1\%$  FSD.

### TEMPERATURE COEFFICIENTS

Zero:  $\pm 0.02\%$  span/ $^{\circ}\text{C}$   
Span:  $\pm 0.02\%$  span/ $^{\circ}\text{C}$

### TEMPERATURE RANGE

Operating:  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$   
Storage:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

### SUPPLY VOLTAGE REJECTION

Output change  $< 0.01\%$  span / % supply change.

### ISOLATION

The output is isolated from the power supply.  
Maximum voltage 250V RMS or 400V DC.  
Resistance  $\geq 50 \times 10^6$  ohms measured at 1000VDC.

### POWER SUPPLY

AC 110/220/240V  $\pm 10\%$  50/60Hz 5VA  
DC 12/24v  $-10\%$   $+20\%$  3.5W

### SAFETY & EMC

Safety: EN61010-1 Immunity: EN50082-1  
Emissions: EN50081-1 CE certified

### WEIGHT

Approx. 670 grams.

### TERMINAL CONNECTIONS

Terminal

- 1, 4 no internal connection (nc)
- 2, 3 reserved

#### Remote set-point option (not available with relay output)

- 5 Pot. at maximum
- 6 Wiper
- 7 Pot. at minimum

#### Outputs

- 5 Normally Closed
- 6 Common
- 7 Normally Open
- 8 (nc)
- 9 (nc)
- 10 +V
- 11 0/p
- 12 0V
- 13 (nc)

Relay Output Option\* Not available with remote set-point pot

Voltage pulse\*

Transistor Output\* (Open Collector)

#### Supply

- 14 Earth
- 15 Neutral
- 16 Line

#### DC Supply Option

- Earth
- Negative (-)
- Positive (+)

Please Note: Options are only available if specified at time of order. \* see notes under Output Options



**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

# SIL

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