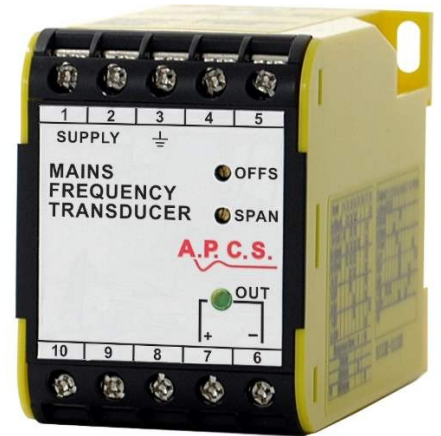



Mains Frequency Transmitter v5 MFT184

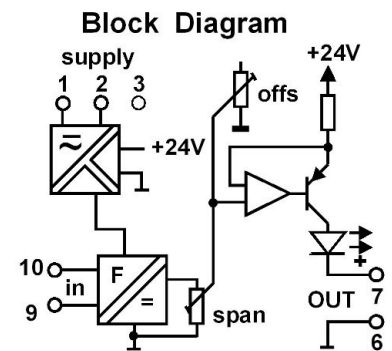
DESCRIPTION

The MFT184 is designed to detect mains frequency variations, typically in the range 45...55Hz and converted into an isolated process signal. As the MFT184 is built around a micro-controller and D/A converter, small changes in frequency can be detected without the problems of long term drift and calibration accuracy. The unit is factory calibrated by adjusting parameters in an internal EPROM. Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments. Output signal is indicated by the green LED on front, which gives a clear indication of module function, presence of signal, and output loop closed (current outputs only). The MFT184 is available in both "Signal Powered" and "Auxiliary Powered" configurations. RF and power transient protection are standard as it is with all APCS modules.



General Specifications

| | |
|--|--|
| Size: | 52 W x 70 H x 110 D (mm). |
| Mounting: | DIN-Rail, gear plate. |
| Termination: | Screw terminals on front. |
| Protection class: | IP40. |
| Weight: | 0.300 kg. |
| Housing material: | ABS. |
| Calibration accuracy: | < 0.5% of span. |
| Combined linearity and drift error: | < 0.5% of span. |
| Accuracy class as per AS1384-1973: | Class 0.5. |
| Front 'OFFS' adjust: | ±5% typical. |
| Front 'SPAN' adjust: | ±5% typical. |
| Temperature effect: | <0.02% per °C. |
| Ambient operating range: | -10...+60°C. |
| Storage temperature range: | -20...+70°C. |
| Range of measurement voltage: | Typically +/-25% of nominal value |
| Power supply voltage fluctuation effect: | For ±10% fluctuation 0.5% of range. |
| Output loop drive: | 20mA into 0 - 900Ω. 50mA into 0 - 360Ω. |
| Output load change effect: | less than 0.2% up to max. load. |
| Power requirements: | 3W. |
| Electromagnetic compatibility: | Complies with AS/NZS 4251.1 (EN 50081.1)  |



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

TYPE NO. DESIGNATION

Power Supply :

- 1 = 90-280Vac 50/60Hz (65-280Vdc).
- *) 3 = 16-48Vac 50/60Hz (10-60Vdc)
- *) 9 = Other specify.
- *) 4 = 415V, 50/60Hz $\pm 10\%$.
- *) 6 = 8 - 60Vdc.

Input :

- 0 = Signal Powered. (AC supply only).
- 1 = 110Vac.
- 2 = 240Vac.
- 3 = 415Vac.
- *) 9 = Other specify.

Calibration :

- 1 = 45...55Hz.
- 2 = 47...53Hz.
- 3 = 48...52Hz.
- 4 = 55...65Hz.
- 5 = 57...63Hz.
- 6 = 58...62Hz.
- 7 = 380...420Hz.
- *) 9 = Other specify.

Output :

- 1 = 0 - 5V (50k Ω min).
- 2 = 0 - 10V (100k Ω min).
- 3 = 0 - 20mA (900 Ω max).
- 4 = 4 - 20mA (900 Ω max).
- 5 = 0 - 50mA (360 Ω max).
- 6 = 10 - 50mA (360 Ω max).
- 7 = 0 - 10mA (1.8k Ω max).
- 8 = 1 - 5V (50k Ω min).
- *) 9 = Other specify.

Action :

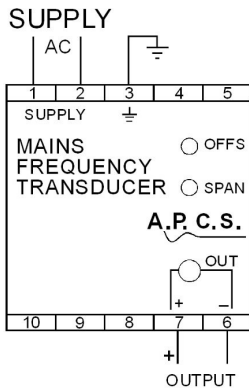
- 1 = Direct.
- 2 = Reverse.

Options :

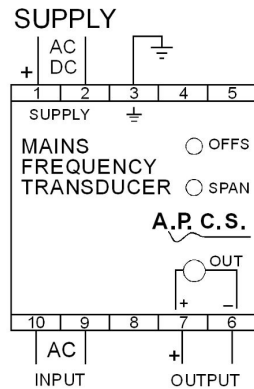
- 0 = None.
- *) 1 = Fast 50mS response time.
- *) 9 = Other specify.
- *) = Price Extra.

Connections

Signal Powered



Auxiliary Powered



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