

PULSE ISOLATOR

Multi-function: Triple isolator or 2/3 way splitter
Type C16-51

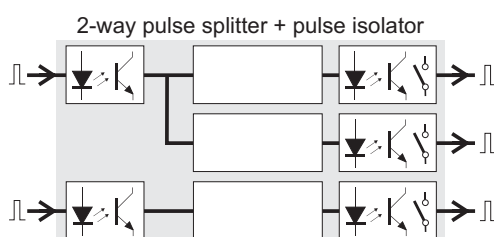
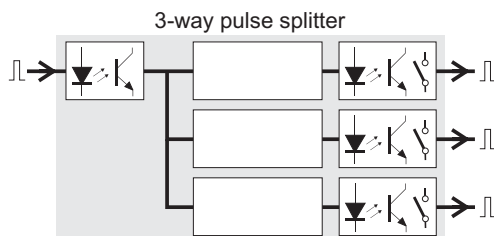
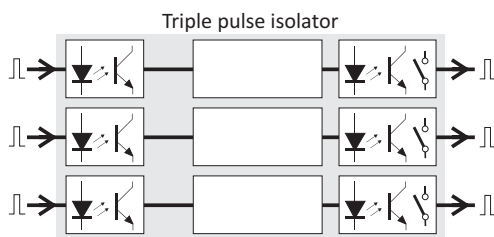
Features

- **User configurable for either:**
 - three separate channels,
 - triple output splitter,
 - or dual output splitter + single channel
- **User selectable input type for each channel**
- **Open collector or relay options for each output**
- **Universal AC/DC powered (85 - 260 VAC, 24 - 200 VDC)**
- **Removable terminals - aid installation and maintenance**
- **Five year warranty**



The C16-51 is a multi-function pulse isolator and pulse splitter with many applications including water and energy metering, building management systems, etc. The pulse isolator may be user configured to provide three separate pulse isolator channels or as a two or three way pulse splitter in applications requiring isolated signals for two or more monitoring systems. When configured as a two-way splitter the third channel may be used as a separate pulse isolator. Each of the outputs may be either relay or open collector. The inputs, outputs and power supply are electrically isolated from each other.

Functional diagram



Typical Applications

- Pulse isolation and/or pulse splitting
- Splitting output of water, gas and electricity meters to PLCs, data loggers, etc.
- Monitoring and control applications for building and energy management systems
- Signal conversion - volt-free contacts to transistor outputs

SPECIFICATIONS

Input pulse rate

0 - 10kHz.

Inputs *(User selectable)*

- Volt-free contact
- Open collector transistor
- Voltage level change (5V minimum, 24V maximum, sine, square or triangular)

Input impedance

43k ohms *(voltage change signals)*.

Output options *(Factory set)*

- Optically isolated open collector transistor
50Vdc max. 20mA
- Relay contact (frequency = 10Hz max).
Relay contacts are rated at:-
3A @ 240V AC resistive or
2.5A @ 30V DC resistive.

Power Supply

85 - 260 VAC 50/60Hz; 24 - 200 VDC (3W nominal).

Safety & EMC

Safety: EN61010-1, Immunity: EN50082-1,

Emissions: EN50081-1, CE certified

Mechanical

Weight: approx. 0.5kg, Dimensions (mm): 116D* x 22.5W x 99.5H *Depth is 117.9 when mounted on DIN rail TS3/TS35D

Temperature range

Operating: - 10 to + 60°C

Storage: - 20 to + 70°C

Accuracy

Error ±1 output pulse.

Isolation

Inputs and outputs 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.

User configurable settings

Selections are made by internal jumper links.

Channel configuration:

- Three separate pulse isolators
- One input to three isolated outputs
- One input to two isolated outputs plus one single channel pulse isolator

The following are configurable for each channel:-

Output pulse width:

- Output pulse width = 100ms \pm 5% *(for inputs \leq 5Hz)*
- Output pulse follows input *(for inputs $>$ 5Hz)*

Output polarity:

- Open collector in 'OFF' state *(output 'High')/ relay de-energised (contact normally open)*
- Open collector in 'ON' state *(output 'Low')/ relay energised (contact closed)*

Information required when ordering

Standard units

Order code: **C16-51 /C** (open collector outputs) or

Order code: **C16-51 /R** (relay outputs)

...plus the following information:-

- Channel configuration
- ...and for each channel:-
- Input type*
- Output pulse width*
- Output polarity*

* for options see 'User configurable settings'

Custom configurations:

For units configured with a mix of output types.

Specify:

Order code: C16-51/9

...plus the following information:-

- Required channel configuration
- ...and for each channel:-
- Input signal*
- Pulse width*
- Output polarity*
- Output type

* for options see 'User configurable settings'



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

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