

PTC-400B/PTC-400ACB

ISOLATED TRACK CIRCUIT UNIT

PIVOT
engineered to endure

ISOLATED POWER UNIT FOR TRACK CIRCUIT OPERATION

The PTC-400B/PTC-400ACB are designed to provide an isolated DC track circuit that operates from a common 12V-24V DC supply (PTC-400B) or 120-240VAC (PTC-400ACB). Both units provide an isolated, variable current source to drive one or two 4Ω track relays. Mounting plates are available for either relay base or DIN rail mounting.

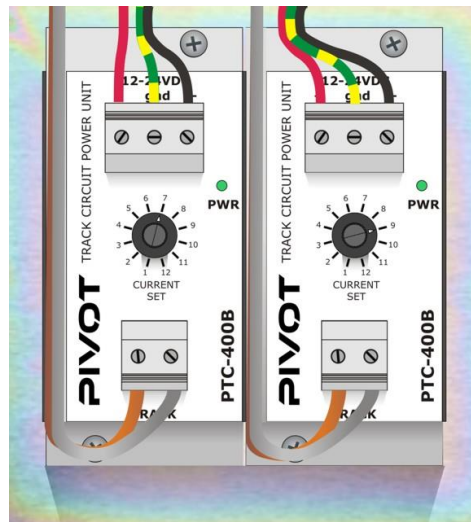


Illustration showing cable layout

The variable current source is similar to the Pivot solar track unit, with a range of adjustment, up to 400mA. This allows the operation of 2 track relays (local and remote) and compensation for leaky or inundated ballasts. The adjustment is provided by a 12-position rotary switch. Once the current is set, it remains constant, compensating against supply voltage variations and loop resistance changes due to temperature.

The unit incorporates surge protection on primary and secondary circuits and includes an LED to indicate that power is supplied to the unit.

FEATURES

- Complete remote track circuit power system – AC or DC supply.
- Aluminium enclosure occupying 1x Q style relay positions or DIN rail mount.
- Sealed against dust and insect ingress.
- Regulated track circuit current.
- Ability to drive one or two track relays (4Ω).

Options

Other current ranges on request.
Other supply voltages on request.
Custom mounting plates available on request.

ORDERING DETAILS

10103 PTC-400B with relay base mounting.
10158 PTC-400B with DIN rail mounting
10156 PTC-400ACB with relay base mounting.
10157 PTC-400ACB with DIN rail mounting

PTC-400B/PTC-400ACB

ISOLATED TRACK CIRCUIT UNIT



Specifications

SUPPLY (DC INPUT MODEL PTC-400B)

Input voltage range	12-24VDC nominal (9-36V range)
Input current	1A maximum
Under-voltage cutoff	9V
Primary surge protection	MOV 68V 10mm x2 (common mode) 36V transzorb x1 (differential mode)
Input connector	Phoenix screw type max 6mm ²

SUPPLY (AC INPUT MODEL PTC-400ACB)

Input voltage range	120-240VAC 50/60Hz nominal (90-265V range)
Input current	150mA maximum
Under-voltage cutoff	90VAC
Primary surge protection	MOV 430V 10mm x2 (common mode) MOV 430V 10mm x1 (differential mode)
Input connector	Phoenix screw type 6mm ²

TRACK CIRCUIT CONTROLLER

Number of outputs	1 (may be used with 2x 4Ω relays in parallel)
Track circuit current	80mA to 400mA in 12 steps
Maximum track-circuit voltage (no load)	2.7V
Isolation from primary supply	1500VDC
Secondary surge protection	GDT, 350V/20kA x2
Maximum loop resistance	10 Ohms @ 200mA
Output connector	Phoenix screw type 6mm ²

GENERAL

Thermal monitoring	Power converter (internal)
Indicators	LED (green) indicating power supplied.
Fault protection	2A supply fuse (x2 internal, non-replaceable) External fusing (2A) is recommended to facilitate isolation and to guard against wiring faults.

ENCLOSURE

Location Category	Indoor (LOC or building)
Enclosure rating	IP54
Enclosure Material	Aluminium
Method of mounting	Surface mount on relay rack (1 relay position) or DIN rail mounting.
Enclosure dimensions	Refer to dimensional drawing
Enclosure weight	500g

PTC-400B/PTC-400ACB

ISOLATED TRACK CIRCUIT UNIT



Specifications continued

Environment

-10 to 70°C

Warranty

5 years, workmanship and materials

DIMENSIONAL DRAWING

