

PTC2000

DIN-Rail time convertors



» Overview

PTC2000 is a multifunction time convertor. PTC2000 is designed for DIN Rail Mount requirements. It is a compact and provides time conversion service for any industry fields. It supports PTP (Precision Timing Protocol), IRIG-B as input time sources. Based on the multiple time source input PTC2000 has multi-time source selection logical inside to implement time conversion function. It also supports PTP (Precision Timing Protocol), NTP (Network Time Protocol), IRIG-B, 1PPS, 1PPM, 1PPH and TOD etc. time synchronization signal output as time synchronization purpose. The default embedded WEB service provides system management.

» Key Features

- Compact DIN Rail installation design
- Support PTP, IRIG-B time input
- Support PTP,NTP/SNTP,IRIG-B,PPS,TOD time output
- Support Web management system
- Optional high performance OCXO with excellent time keeping performance

» Product Specifications

>Functions

-Time Input

Support PTP time input

Support IRIG-B optical input and IRIG-B TTL input

-Time Output

Support PTPv2

Support PTP Grandmaster

Support PTP Slave

Support PTP BC

Support NTP/SNTP Server

Support IRIG-B demodulated output (B000~B007 Format; TTL, RS485 and Optical output)

Support IRIG-B modulated output (B120~B127 Format)

Support TOD serial time coding (RS232 and RS485 Interface, RS232 customizable; TOD, NMEA-RMC, NMEA-ZDA and Customized Serial Message)

-Time Signal Conversion

IRIG-B to PTP, NTP/SNTP and TOD

PTP to NTP/SNTP, IRIG-B and TOD

-Device Management

Support WEB configuration and maintenance

>Product Specifications

-Input Interface

TTL: BNC connector, IRIG-B, one port

Fiber: Multi-mode, 850nm, ST connector, IRIG-B, one optional port

-Network Interface

Interface: Two 100/1000M Ethernet ports, RJ45 or 100M SFP or 1000M SFP ports

PTP v2:

Grandmaster, Slave and Boundary clock

E2E, P2P

802.3, IPv4

NTP/SNTP: NTP/SNTP Server Mode

-Output Interface

TTL(BNC): BNC connector, IRIG-B or PPS software configurable, two ports

TTL(Terminal): Terminal connector, IRIG-B or PPS software configurable, four ports

Fiber: Multi-mode, 850nm, ST connector, IRIG-B or PPS software configurable, one optional port

TOD: RS232/RS485(RS232 customizable), RJ45, 1PPS+TOD, one port

IRIG-B Modulated: Terminal connector, IRIG-B modulated signal, peak to peak 3~12V and modulated ratio 3:1~6:1 software configuration, two ports

Contact: Terminal connector, Maximum 300VDC, 10mA, PPS or PPM software configurable, two ports

-Alarm Interface

Relay:

NC and NO relay alarm contact, 3-pin 5.08mm-spacing plug-in terminal block, 250 VAC Max, 3 A Max

-Maintenance Interface

Console: RS232, RJ45, one port

-LED

System alarm: ALARM

Time lock status: LOCK

-Power Supply

Input:

110-220VAC/DC(85-264VAC/85-300VDC), 47-63Hz

24VDC(18-36VDC)

48VDC(36-60VDC)

Terminal: 3-pin 7.62 mm-spacing plug-in terminal block

Consumption: <20W

-Physical Characteristics

Housing: Metal

Cooling: Natural cooling, fanless

Dimensions(WxHxD): 75mm × 140mm × 149mm (2.95×5.51×5.87 in.)

Weight: <2Kg (4.41pound)

-Environmental Limits

Operating temperature: -20°C to +70°C (-4°F to 158°F)

Storage temperature: -30°C to +80°C (-22°F to 176°F)

Ambient Relative Humidity: 5% to 95% (non-condensing)

-Quality Assurance

Warranty: 5 years

-Approvals

CE, FCC

EMC: EN 55032, EN 55035, EN 61000-6-4, EN 61000-6-2

IEC 62368-1, EN 62368-1

>Time Accuracy

-PPS

Fiber $\leq 60\text{ns}$

TTL $\leq 60\text{ns}$

RS485 $\leq 0.5\mu\text{s}$

Contact $\leq 3\mu\text{s}$

-IRIG-B

Fiber $\leq 60\text{ns}$

TTL $\leq 60\text{ns}$

RS485 $\leq 0.5\mu\text{s}$

Modulated $\leq 3\mu\text{s}$

-TOD

RS232 $\leq 5\text{ms}$ (RS232 customizable)

RS485 $\leq 5\text{ms}$

-1PPS+TOD

$\leq 60\text{ns}$

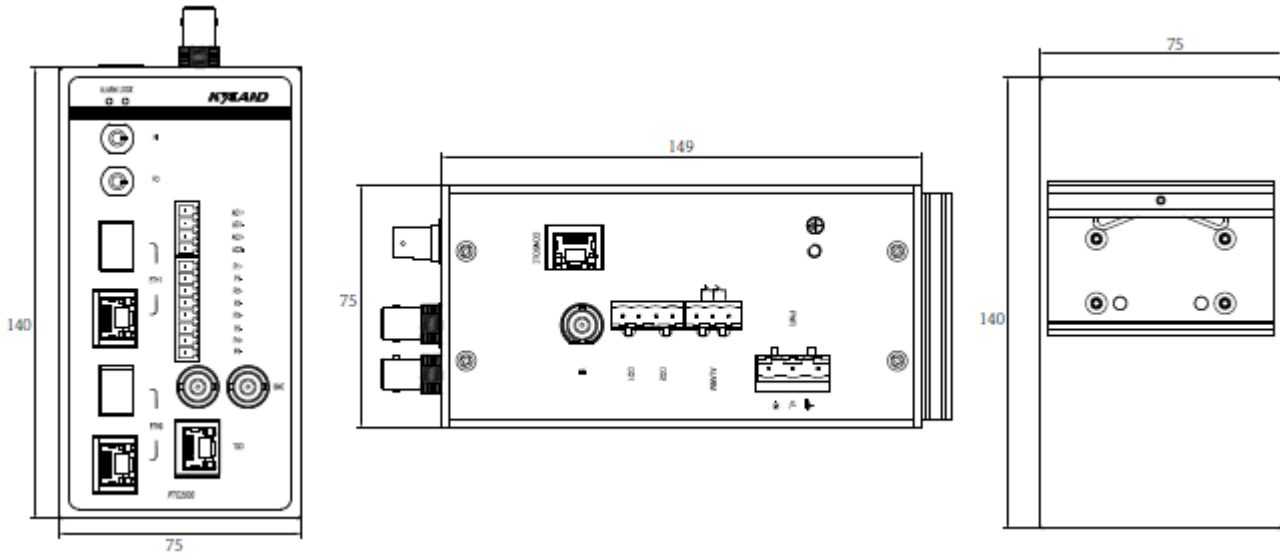
-NTP

$\leq 50\mu\text{s}$

-PTP

$\leq 50\text{ns}$

» Mechanical Drawing



» Ordering Information

Product Model	PTC2000-P-A0CD
Code definition	Code selection
P=Power Supply	7=110-220VAC/DC single 3=48VDC single 5=24VDC single
A= Oscillator	1=TCXO (<55µs/1h)
C= Time Synchronization	1=Support PTPv2 function
D= Fiber input/output port	0=No fiber ports 1= FI (ST 850nm MM) + FO (ST 850nm MM)

	Order Information	Description
PO (Demo#2)	PTC2000-5-1011	TCXO(55µs/1h), 2*100/1000M C/F(LC), Alarm Contact, PTPv2, FI+FO, 24VDC

Version:2022-11-24 11:56:07