

PTC1000

PTP clock converters



» Overview

PTC1000 Clock Converter realizes the conversion from PTP to IRIG-B and PPS (Pulse Per Second). This allows the industrial devices that are equipped with IRIG-B clock interfaces and PPS interface to conveniently access PTP network. This provides economic solution for evolving legacy network into future-proofing PTP network and achieve high precision synchronization required in industrial control system.

» Key Features

Support IEEE 1588v2, the synchronization accuracy reaches $\pm 100\text{ns}$.

Support ITU-T.G.8261/G.8262 SyncE, the synchronization accuracy can reach $\pm 50\text{ns}$ with SyncE enabled.

Support 1 100Base-FX SC/ST/FC or 1 10/100Base-TX RJ45 IEEE1588 input.

Support PPS output, IRIG-B TTL outputs, and IRIG-B AM modulation.

Supports IRIG-B000, B001, B002, B003, B004, B005, B006, B007, B120, B121, B122, B123, B124, B125, B126, B127.

Complies with IEC 61850-3 and IEEE1613.

CE, UL508 certificates.

» Product Specifications

>Software Functions

-Management & Maintenance

Supports Console, Telnet, and Web management methods.

Supports SNMPv1/v2c and can managed by Kyvision.

Supports software update over FTP.

Supports the power failure alarm, power alarm

-Clock Management

Supports PTPv2 (IEEE1588-2008).

Supports Power profile (C37.238).

Supports Telecom profile (in special version).

Supports synchronous Ethernet (ITU-T.G.8261/G.8262).

>Product Specifications

-Standard

IEEE 802.3i(10Base-T)

IEEE 802.3u(100Base-TX and 100Base-FX)

IEEE 1588-2008(PTPv2)

ITU-T.G.8261/G.8262 (synchronous Ethernet)

-Interface

PTP port:

100Base-FX, single/multi mode, SC/ST/FC connector

10/100Base-T(X), RJ45 port

Console port: RS232,RJ45

Alarm contact:

3-pin 5.08mm-spacing plug-in terminal block, 250 VAC/220 VDC Max, 2A Max, 60 W Max

Clock Signal:

PPS: TTL level +5V, 50Ω, Rising edge based, pulse width 20ms-200ms, stepped by 20ms (configurable in software), BNC connector

IRIG-B DC:

TTL level +5V, 600Ω, Rising edge based, BNC connector or 2-pin

5.08mm-spacing plug-in terminal block

RS422, 2-pin 5.08mm-spacing plug-in terminal block

IRIG-B AM: Vp-p, 3V-10V (configurable in software, default Vp-p: 4.5V), 600Ω, Modulation Ratio 3:1, 4:1, 5:1, 6:1 (optional, default modulation ratio is 3:1), BNC connector or 2-pin 5.08mm-spacing plug-in terminal block

-LED

LED on front panel

Running LED: Run

Alarm LED: Alarm

Power LED: PWR1, PWR2

Port LED: Link/ACT, Speed

PTP Sync LED: Sync

-Power Requirements

Power input:

24VDC(18-36VDC)

110VDC(77-154VDC)

100-240VAC,50/60Hz;110-220VDC (85-264VAC/77-300VDC)

Power terminal:

5-pin 5.08 mm-spacing plug-in terminal block

Power consumption<4w

Overload protection: Support

Reverse connection protection: Support

Redundancy protection: Support

-Physical Characteristics

Housing: Metal

Cooling: Natural cooling, fanless

Protection Class: IP40

Dimensions(WxHxD):

62.4×139×119.5 mm (2.45×5.47×4.70 in.)

Weight: 0.75kg (1.653 pound)

Mounting: Vertical or Horizontal Din-Rail

-Environmental Limits

Operating temperature: -40°C to +85°C (-40°F-185°F)

Storage temperature: -40°C to +85°C (-40°F-185°F)

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

-Quality Assurance

MTBF: 332,600 hrs

Warranty: 5 years

-Approvals

CE: Models with power supply of L3: 24VDC

UL508: Models with power supply of L3: 24VDC

-Industry Standard

EMI:

FCC CFR47 Part 15,EN55022/CISPR22,Class A

EMS:

IEC61000-4-2(ESD) $\pm 8\text{kV}$ (contact), $\pm 15\text{kV}$ (air)

IEC61000-4-3(RS) 10V/m(80MHz-2GHz)

IEC61000-4-4(EFT) Power Port: $\pm 4\text{kV}$;Data Port: $\pm 2\text{kV}$

IEC61000-4-5(Surge) Power Port: $\pm 2\text{kV}/\text{DM}$, $\pm 4\text{kV}/\text{CM}$;

Data Port: $\pm 2\text{kV}$

IEC61000-4-6(CS) 3V(10kHz-150kHz);

10V(150kHz-80MHz)

IEC61000-4-16(common mode conduction) 30V(cont.),300V(1s)

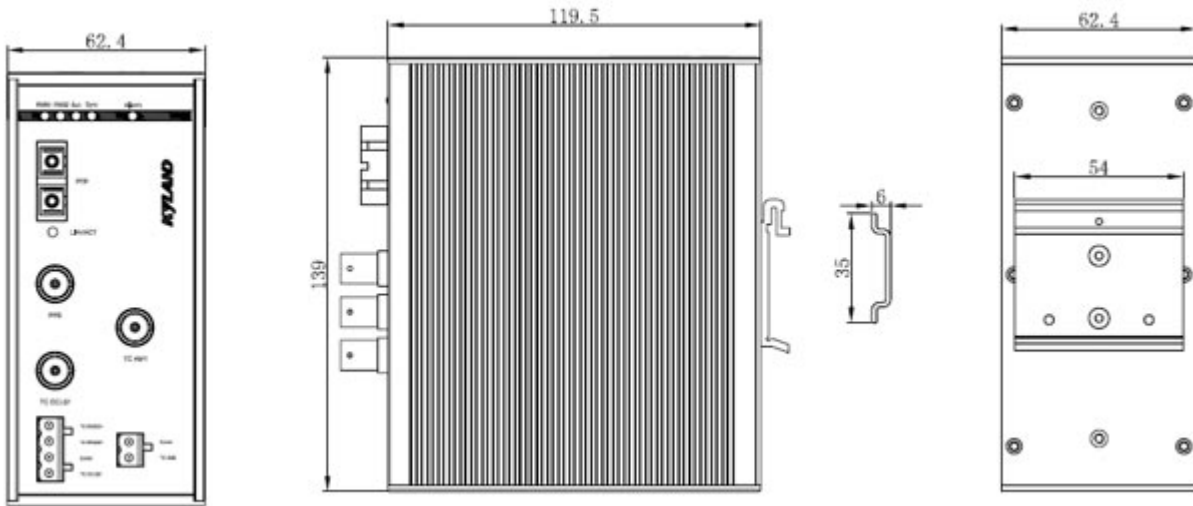
Machinery:

IEC60068-2-6 (vibration),

IEC60068-2-27 (shock),

IEC60068-2-32 (free fall)

» Mechanical Drawing



Ordering Information

PTC1000-Ports-Connector-XX-PS

Ports

- 1S 1x100Base-FX, single-mode fiber port
- 1M 1x100Base-FX, multi-mode fiber port
- 1T 1x10/100Base-T(X) RJ45 port

Connector

- SC05 SC connector, multi-mode, 1310nm, 5km
- ST05 ST connector, multi-mode, 1310nm, 5km
- FC05 FC connector, multi-mode, 1310nm, 5km
- SC40 SC connector, single-mode, 1310nm, 40km
- ST40 ST connector, single-mode, 1310nm, 40km
- FC40 FC connector, single-mode, 1310nm, 40km
- SC60 SC connector, single-mode, 1310nm, 60km
- SC80 SC connector, single-mode, 1550nm, 80km
- N/A No 100M fiber port

XX

- None The second channel of IRIG-B out is 2-pin 5.08 mm-spacing plug-in terminal block
- 1 The second channel of IRIG-B out is BNC connector

PS

- HV 100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC),single power input
- H2-H2 110VDC(77-154VDC), redundant power inputs
- L2-L2 24-48VDC(18-72VDC), redundant power inputs

Accessories

- DT-FCZ-RJ45-01 Dustproof cover for RJ45 port

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