OSD2183P

Micro 10/100/1000Base-T to 100/1000Base-X Media Converter with IEEE802.3af/at/bt & PoH PoE Source
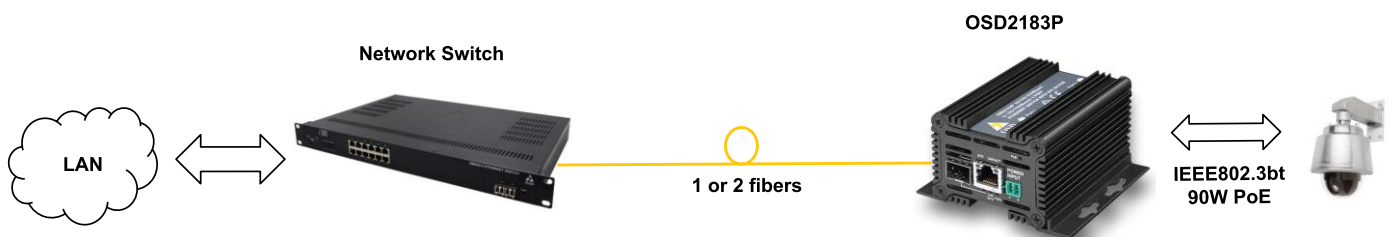
Introduction

The OSD2183P is a Power over Ethernet Gigabit Media Converter meeting the latest IEEE802.3bt PoE specification with continued support for devices requiring IEEE802.3af/at and HDBase-T (PoH) PoE. The fixed RJ45 ports is capable of providing 90W of power allowing the latest PoE devices such as IP cameras, Wireless Access Points, microwave links and VOIP phones to be easily connected to your network. With a compact design the OSD2183P can easily be mounted inside a network enclosure or a Smart Pole using the DIN rail or wall mounting brackets provided. Optionally, the OSD2183PW version can be powered from a 12VDC to 57VDC supply. A rugged IP30 casing, fanless design and wide operating temperature range from -40 to +75°C make this product ideally suited for use in a wide range of harsh industrial environments.

Features and Benefits

▲ Complies with IEEE802.3i/802.3u/802.3ab 10/100/1000Base-T, IEEE802.3u 100Base-Fx, IEEE802.3z 1000Base-Lx/Sx standards

▲ Has one fixed 10/100/1000Base-T copper ports and one 100Mbps/1000Mbps SFP port

▲ Auto MDI/MDIX on copper port (support both straight through and crossover cables)

▲ Complies with the IEEE802.3af/at/bt and HDBaseT (PoH) standards

▲ Provides up to 90W to the RJ45 port.

▲ User selectable PoE mode setup via Push Button.

▲ Powered by non-critical 46 to 57VDC supplies for OSD2183P or 12 to 57VDC for OSD2183PW (voltage booster version)

▲ Operates over the temperature range of -40 to +75ºC

▲ Supports 10KB jumbo frames

▲ User selected SFP module allows for a fiber link over 1 or 2 multimode or single mode fibers over a range of distances up to 120km (over single mode fiber)

▲ DIN rail or surface mounting

Industrial Ethernet Media Converters / Switches

Typical System Design

Network Switch

LAN

1 or 2 fibers

OSD2183P

IEEE802.3bt 90W PoE

Specifications

Hardware

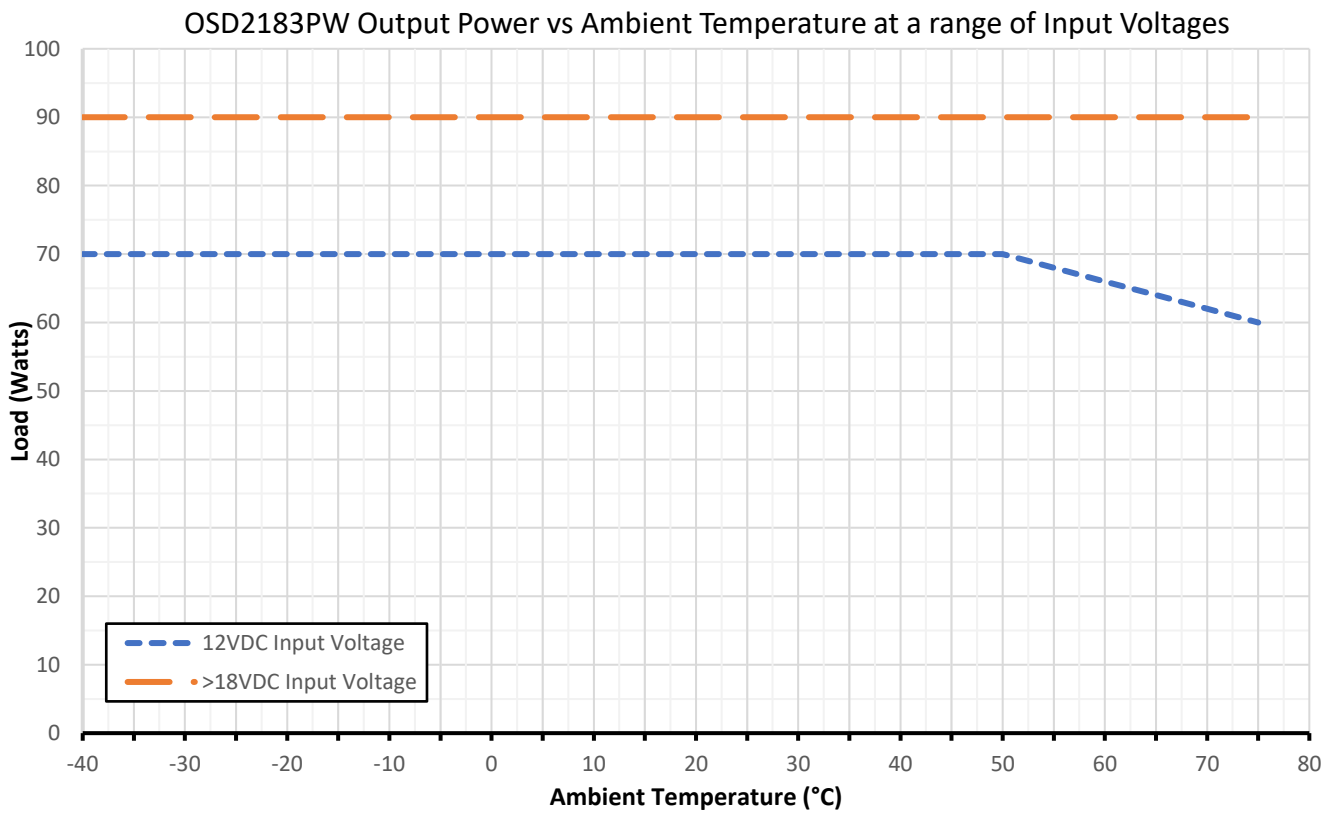|	
Ethernet	1 x 10/100/1000Base-T RJ45, IEEE802.3i/802.3u/802.3ab
Jumbo Frame Support	10KB
SFP	1 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)
Optical Data Interface	IEEE802.3z 1000Base-Lx/Sx, IEEE802.3u 100Base-Fx
PoE modes (user selectable via push button)	IEEE802.3af/at, IEEE802.3bt, PoH, bt legacy mode
Enclosure Protection Class	IP30
Installation	DIN rail, wall mount or desktop
DIP Switch	3 way DIP switch for configuration 1. Not in use 2. 100 or 1000Mbps on the fiber port 3. PoE On/Off
Power Requirements – OSD2183P	Input Voltage: +46VDC to +57VDC @ 8W +PoE output power for PD devices. Output PoE Voltage: Vin - Vdrop
Power Requirements – OSD2183PW	Input Voltage: +12VDC to +57VDC @ 15W + PoE output power for PD devices. Output PoE Voltage: 56 to 57V - Vdrop
Output PoE Vdrop	PoE voltage drop <0.5V @ 30W, <1V @ 60W, <1.5V @ 90W
Power Connector	2 way 3.5mm terminal block
Indicators	1 x Copper Link/Activity on RJ45 1 x Copper Speed on RJ45 1 x PoE Power On/Off 4 x PoE Mode 1 x Power On/Off 1 x SFP Link/Speed on SFP
Environmental	-40 to +75°C
Relative Humidity	0 to 95% non-condensing
Dimensions	90W x 88D x 49H mm
Weight	380g

Warranty

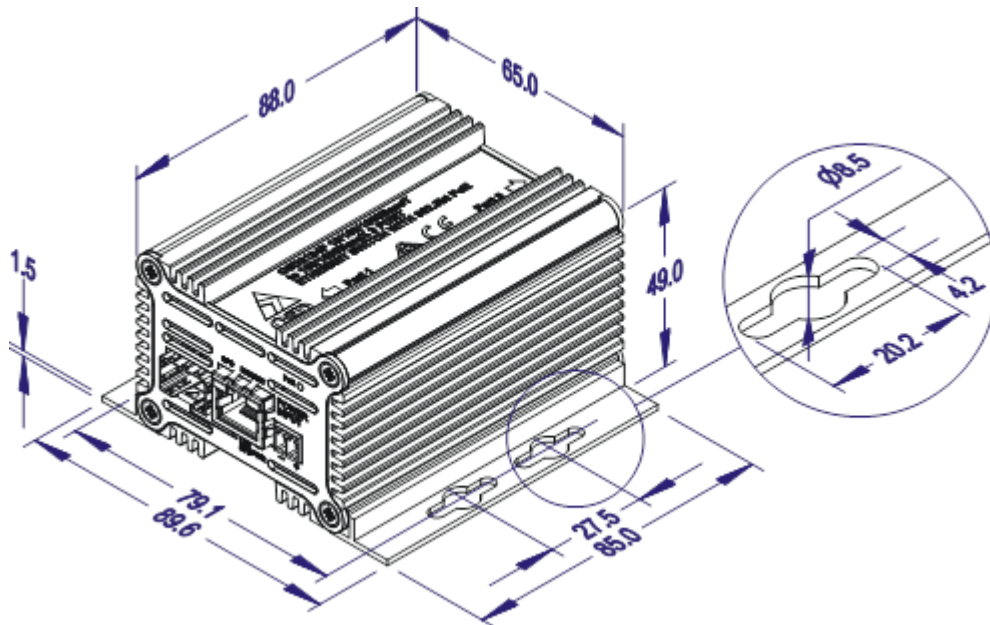|	
Warranty Period	5 years
MTBF (Ground Benign Environment, 30ºC)	472,000 hours for OSD2183P 424,000 hours for OSD2183PW

Ordering Information

Part No.	Description
OSD2183P	Media Converter with 1 x RJ45 with PoE IEEE802.3af/at/bt & PoH and 1 x Gb SFP
OSD2183PW	Media Converter with 1 x RJ45 with PoE IEEE802.3af/at/bt & PoH and 1 x Gb SFP supporting 12-57VDC input voltage range
SFP	See OSD SFP datasheets #102100XX, #10210000X

Maximum PoE Output Power with temperature derating

OSD2183PW Output Power vs Ambient Temperature at a range of Input Voltages

Load (Watts) vs Ambient Temperature (°C)

Legend:
- 12VDC Input Voltage
- >18VDC Input Voltage

Dimensions

Surface Mounted

Din Rail Mounted