iCON-32310 Series

10/100Base-TX Industrial Ethernet Extender over Copper Wire
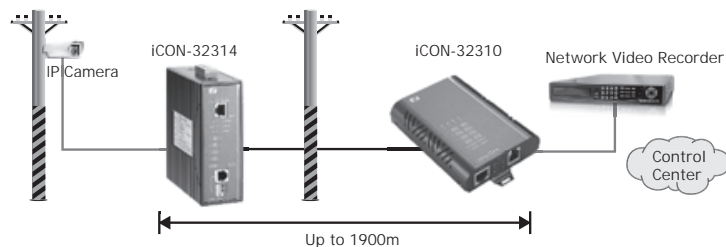with DIN-rail Mounting Kits and Power Adaptor (-20°C ~ +60°C)

Features

- Ethernet extender (RJ-11) port: Symmetrical on the VDSL, high-speed full-duplex 50Mbps communications link over existing copper telephone line
- Ethernet port: 10/100Mbps-full/half-duplex, Auto-negotiation, Auto-MDI/MDIX
- -20°C to +60°C (-4°F to +140°F) operating temperature range
- Supports DIP switch to select local or remote site
- Supports DIN-rail and wall mounting installation

Introduction

The iCON-32310 series is the point-to-point Ethernet extender that efficiently extends 10/100 Ethernet circuits to over 300 meters (984 feet) at 50Mbps using existing straight pair copper wire. This series allows Ethernet connectivity in existing facilities without pulling extra cable. It is the perfect solution to Ethernet on the factory floor where systems have been upgraded from slower serial communications to Ethernet networking. The installation is easy with a single switch setting which one end is set for local and the other remote. The iCON-32310 series is used in pairs to extend Ethernet connectivity over existing voice grade copper wire.

Specifications

Technology	
Standards	IEEE802.3 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3x, Ethernet over VDSL
Protocols	Transparent to higher layer protocols
Processing Type	Half-duplex back-pressure and IEEE802.3x full-duplex flow control

Power	
Input	Input voltage: 12VDC
Power Consumption	2.4W max. 0.2A@12VDC

Mechanical	
Casing	Aluminum case
Dimensions	80.3mm (W) x 109.2mm (D) x 23.8mm (H) (3.16" (W) x 4.30" (D) x 0.94" (H))
Weight	150 g (0.33 lb)
Installation	DIN-rail, wall mounting

Interface	
Ethernet Port	Port: one RJ-45 port, 10/100Base-TX full/half-duplex auto-negotiation, auto-MDI/MDIX Speed: 10/100Mbps Distance: 100 meters (328 feet) Cable: 10Base-T: UTP Cat 3, 4, 5 (2-pair wire) 100Base-TX: UTP Cat 5 (2-pair wire)
Ethernet Extender Port	Port: One RJ-11 Port Speed: 1/3/5/10/15/20/25/30/40/50Mbps Distance: 1900 meters (6,232 feet) Cable: telephone line 24 AWG (0.5mm diameter, 1-pair wire) or larger

DIP switch	One DIP switch: local (CO) or remote (CPE)		
LED Indicators	Per unit: power status (power) Per port: 10/100TX: link/activity, full-duplex Line: error, link, local, remote		

	LED		Speed	Distance
1	Green		1Mbps	1,900m (6,232 ft.)
	Amber		3Mbps	1,800m (5,904 ft.)
2	Green		5Mbps	1,600m (5,249 ft.)
	Amber		10Mbps	1,400m (4,593 ft.)
3	Green		15Mbps	1,200m (3,936 ft.)
	Amber		20Mbps	1,000m (3,280 ft.)
4	Green		25Mbps	800m (2,624 ft.)
	Amber		30Mbps	700m (2,296 ft.)
4&2	Amber		40Mbps	600m (1,968 ft.)
4&3	Amber		50Mbps	300m (984 ft.)

Environment

Operating Temperature	-20˚C to +60˚C (-4˚F to +140˚F)
Storage Temperature	-20˚C to +70˚C (-4˚F to +158˚F)
Ambient Relative Humidity	5% to 95% (non-condensing)

Regulatory Approvals

ISO	Manufactured in an ISO9001 facility
Safety	UL 60950-1
EMI	FCC part 15, class A EN61000-6-3 * EN55022 * EN61000-3-2 * EN61000-3-3
EMS	EN61000-6-2 EN61000-4-2 (ESD standards) * Contact: + / - 4KV; criteria B * Air: + / - 8KV; criteria B EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000MHz; 80% AM criteria A EN61000-4-4 (burst standards) * Signal ports: + / - 4KV; criteria B * D.C. power ports: + / - 4KV; criteria B * A.C. power ports: + / - 4KV; criteria B

	EN61000-4-5 (surge standards) * Signal ports: + / - 1KV; Line-to-Line; criteria B * D.C. power ports: + / - 0.5KV; Line-to-earth; criteria B * A.C. power ports: + / - 2KV; Line-to-earth; * Criteria B EN61000-4-6 (Induced RFI Standards) * Signal ports: 10Vrms @ 0.15~80MHz; 80% AM criteria A * D.C. power ports: 10Vrms @ 0.15~80MHz; 80% AM criteria A * A.C. power ports: 10Vrms @ 0.15~80MHz; 80% AM criteria A EN61000-4-8 (magnetic field standards) * 30A/m @ 50, 60Hz; criteria A EN61000-4-11 (voltage dip standards) * A.C. power ports: 30% reduction for 0.5 period; criteria B
Environmental Test Compliance	IEC60068-2-6 Fc (vibration resistance) * 5g @ 10~150KHz, amplitude 0.35mm (operation/storage/transport) IEC60068-2-27 Ea (shock) * 25g @ 11ms (half-sine shock pulse; operation) * 50g @ 11ms (half-sine shock pulse; storage/transport) IEC60068-2-32 Ed (free fall) * 1M (3.281ft.)

Ordering Information

iCON-32310-D-A	10/100Base-TX industrial Ethernet extender with DIN rail mounting kits and power adaptor for Australia (-20°C ~ +60°C)
iCON-32310-D-E	10/100Base-TX industrial Ethernet extender with DIN rail mounting kits and power adaptor for Europe (-20°C ~ +60°C)
iCON-32310-D-J	10/100Base-TX industrial Ethernet extender with DIN rail mounting kits & power adaptor for Japan (-20˚C ~ +60˚C)
iCON-32310-D-K	10/100Base-TX industrial Ethernet extender with DIN rail mounting kits & power adaptor for UK (-20°C ~ +60°C)
iCON-32310-D-U	10/100Base-TX industrial Ethernet extender with DIN rail mounting kits & power adaptor for USA (-20˚C ~ +60˚C)

Dimensions

Back

23.8mm(0.94in)

80.3mm(3.16in)

Front

109.2mm(4.3in)

Top

Side