VOLKTEK

IMC-661

1 x 10/100/1000 RJ45 to 1 x FX/GbE SFP Industrial Converter

Description

The IMC-661 Unmanaged Industrial Media Converter is specifically engineered to offer an affordable solution for industrial systems. Built to withstand in operating temperature form -40°C to 75°C, the media converter can operate consistently even in harsh industrial environments. The IMC-661 features intelligent functions like Auto MDI/MDIX, LFS (Link Fault Signalling), LLB (Line Loopback), LEDs, DIP switches to provide easy plug-and-play, continuous monitoring thereby minimizing downtime for mission-critical networks.

Featuring one 10/100/1000Mbps copper port, the IMC-661 provides convenience to connect any other switch/hub/PLC through copper cable. Equipped with one multi-rate 100/1000Mbps SFP slot, the media converter offers fiber advantages of secure data transmissions over long distances to mission-critical networks. IMC-661 provides maximum bandwidth flexibility and extended connectivity for workgroups that are ready to expand and migrate from existing fast Ethernet network to gigabit network.

Features Highlight

Robust Switch Performance

With an industrial aluminum housing case, IP30, surge and ESD protection, the IMC-661 provides a high level of immunity against electromagnetic interference and heavy electrical surges, thus facilitating easy deployment in demanding environments. In addition, the IMC-661 offers high performance switch architecture with one 10/100/1000BASE-T port and one 100FX/Gigabit Ethernet SFP slot to meet the requirements of high-bandwidth access in extreme operating temperatures.

Fault-tolerant and User-friendly Monitoring

Network administrators can now easily monitor and troubleshoot issues associated with device functionality and link activity using the advanced features of IMC-661. LFS (Link Fault Signalling) enables you to easily detect optical signal strengths and faulty links on both copper and fiber ports. And LLB (Line look back) allows you to remotely isolate and localize network problems, thereby significantly minimizing network downtime. In addition, the LEDs on the device convey essential diagnostic and status information of device power, link activity on ports etc. allowing you to easily monitor without having to get into tight spaces.

Redundant Power Supply

Considering the single power circuit failure impact in heavy industrial applications, IMC-661 is developed with standard "6-pin Terminal Block" for redundant power to provide continuous service resulting reliable and consistent network. In addition, the switch is equipped with alarm feature to notify the occurrence of power failure, helps in quick respond and faster trouble shooting.
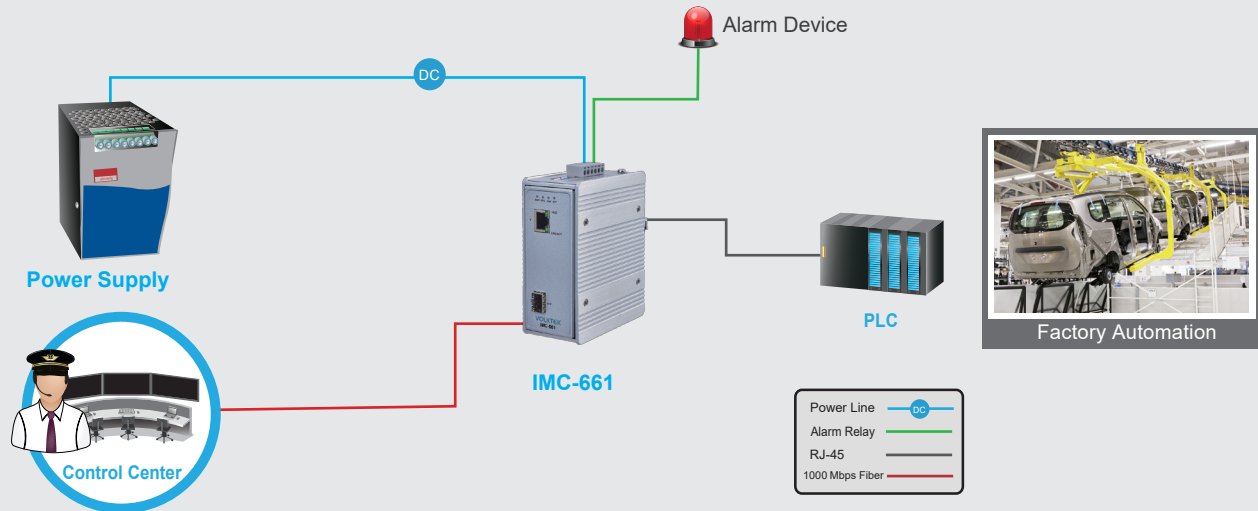
Easy Plug-and-play Operation

Being compact in size, IMC-661 media converter is an easy-to-setup and ready-to-use solution for any application system. Featuring Auto-MDI/MDIX and Auto-negotiation, the media converter automatically detects and configures the best mode of operation over a link. This eliminates the need for user setup or configuration procedure and simplifies installation, once installed these media converters operate automatically.
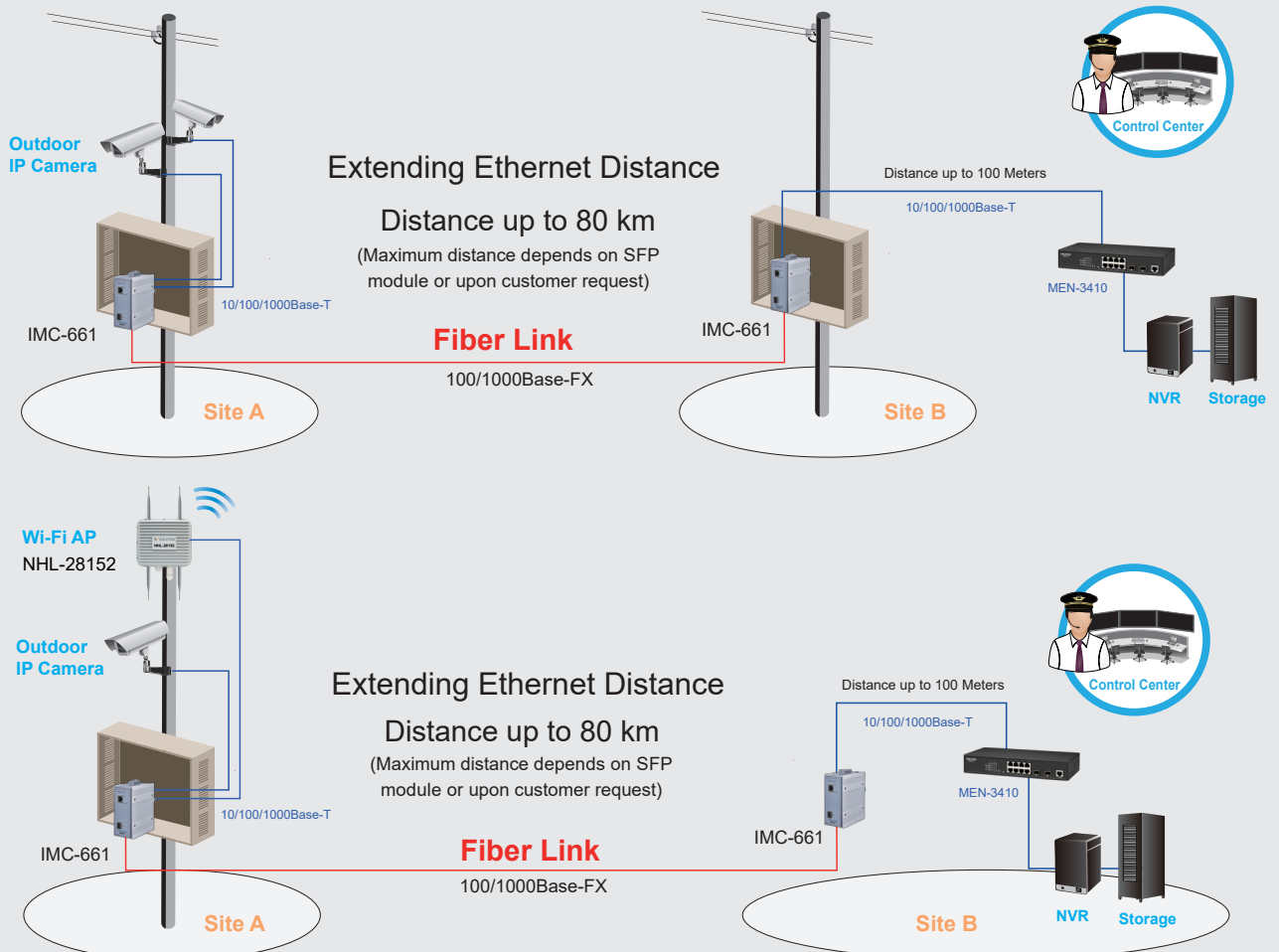
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Applications

Scalable Ethernet plus Easy Fiber Extension to Control Room

The IMC-661 is compatible with 10/100/1000Mbps through RJ45 transceivers to guarantee a strong, stable connection of Ethernet, Fast Ethernet or Gigabit Ethernet, providing flexible deployment options to satisfy industrial networking requirements.

Alarm Device

Power Supply

Control Center

IMC-661

PLC

Factory Automation

Power Line	DC
Alarm Relay	
RJ-45	
1000 Mbps Fiber	

Fiber-Optic Link Capability Enables Extension of Network Deployment

Outdoor
IP Camera

Extending Ethernet Distance

Distance up to 80 km
(Maximum distance depends on SFP module or upon customer request)

10/100/1000Base-T

IMC-661

Fiber Link
100/1000Base-FX

Site A

IMC-661

Distance up to 100 Meters

10/100/1000Base-T

Control Center

MEN-3410

NVR   Storage

Site B

Wi-Fi AP
NHL-28152

Outdoor
IP Camera

Extending Ethernet Distance

Distance up to 80 km
(Maximum distance depends on SFP module or upon customer request)

10/100/1000Base-T

IMC-661

Fiber Link
100/1000Base-FX

Site A

IMC-661

Distance up to 100 Meters

10/100/1000Base-T

Control Center

MEN-3410

NVR   Storage

Site B

* The diagram illustrates a typical application for the IMC-661 media converter. The actual distances will depend on several factors, including the quality of cables used and the terminal equipment employed.

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Specifications

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX/FX
IEEE 802.3ab	1000BASE-T
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.3az	Energy Efficient Ethernet (EEE)

Interface	
Ports	1 x 10/100/1000BASE-T (RJ45)
	1 x 100FX/GbE SFP Slot
DIP Switch	Primary/Redundant Power Voltage Drop Alarm setting
LED Panel	PWR, RPS, ALM, SFP, 1000, LNK/ACT

Features	
Performance	Jumbo Frame size: 10K
	MAC table size: 8K
	Fabric: 4Gbps
	Packet buffer: 1Mbit
Management	Device Monitoring: LFS (Link Fault Signalling)
	Device Management: LLB (Line Loopback)
	Security: Port Isolation

Power	
Input Voltage	Primary: 20~57VDC
	Redundant: 20~57VDC
Power Connection	4-pin DC-Jack (Primary Power Input)
	6-pin Terminal block (Primary/Redundant Power Input)
Input Polarity Protection	Present
Voltage Drop Alarm	Primary/Redundant Power Input
Alarm Relay	One relay output with current carrying capacity of 1A @ 24VDC
Power Consumption	6W
ESD Protection	Present
Surge Protection	Present

Note :

* The SFP communication distance upon the request.
* Industrial SFP with wide operating temperature from -40°C~85°C is available upon request.
* Specifications subject to change without notice.

Mechanical and Environment	
Housing	Aluminum (IP30 Protection)
Mounting	DIN-Rail
Operating Temperature	-40°C~75°C (-40°F~167°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Operating Humidity	5 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	486 g (1.07 lb)
Dimension (WxHxD)	49.6 x 120 x 100 mm (1.95 x 4.72 x 3.94 in)

Certifications		
Safety		EN 60950
FCC		Part 15 Subpart B Class A
CE	**EMI**	EN 55022 class A
	EMS	EN 55024 EN 61000-4-2 (ESD) EN 61000-4-3 (RS) EN 61000-4-4 (EFT) EN 61000-4-5 (Surge) EN 61000-4-6 (CS) EN 61000-4-8 (PFMF)
Shock		IEC 60068-2-27
Freefall		IEC 60068-2-32
Vibration		IEC 60068-2-6

Ordering Information	
IMC-661	1 x 10/100/1000 RJ45 to 1 x FX/GbE SFP Industrial Converter, -40°C~75°C

Optional Accessories	
FPM-107	100BASE-FX Multi-mode SFP, 2Km
GBM-132TS	100BASE-FX, Bi-Di SFP TX:1310/RX:1550 Single Mode, 20Km, 0°C~70°C (32°F~158°F)
GBM-132RS	100BASE-FX, Bi-Di SFP TX:1550/RX:1310 Single Mode, 20Km, 0°C~70°C (32°F~158°F)
GBM-104	1000BASE-SX 1.25G, Multi-mode SFP, 500m
GBM-123TS	1000BASE-LX, Bi-Di SFP TX:1310/RX:1550 Single Mode 10Km, 0°C~70°C (32°F~158°F)
GBM-123RS	1000BASE-LX, Bi-Di SFP TX:1550/RX:1310 Single Mode 10Km, 0°C~70°C (32°F~158°F)

Dimension