

# IMC-553

## Unmanaged Unmanaged 1 x 10BASE-T1L SPE & 1 x 10BASE-T Industrial Media Converter

### Description

The IMC-553 Unmanaged Industrial SPE Media Converter - a state-of-the-art solution tailored for seamless integration into industrial control networks. Encased in a sturdy metal housing with IP 30 protection, this compact converter excels in reliability within challenging environments, thanks to its impressive -40 to 75°C wide operating temperature range.

With a configuration that includes a 10BASE-T1L SPE port and a 10BASE-T RJ45 port, the IMC-553 is adept at addressing diverse connectivity requirements. Clear visibility into the device's status is ensured by the 3-pin terminal block for 10BASE-T1L and LED indicators. The inclusion of a DIP switch facilitates effortless configuration, supporting Auto, Master/Slave modes.

Installation is made versatile with support for both Din-Rail and Wall Mount options, providing adaptability to various setups.

Aligned with the IEEE 802.3cg Single Pair Ethernet (SPE) standard, the IMC-553 empowers 10 Mbps Ethernet communications over existing fieldbus cables, reaching an impressive 1000m. Leveraging existing fieldbus wiring, it streamlines cabling, reduces costs, and extends Industrial Ethernet to novel sensor, actuator, and automation applications requiring low-speed connectivity. Serving as a pivotal bridge, the IMC-553 facilitates the convergence of industrial automation systems over Ethernet, seamlessly interoperating with existing networks through standard CAT5/6 cabling. Elevate your network efficiency with the IMC-553 Unmanaged Industrial SPE Media Converter - an agile, dependable solution for your industrial connectivity needs.



**RoHS**  
CE FCC

**UL**  
LISTED

### Features Highlight

#### Reduced Wiring Complexity

The IMC-553 utilizes only a single pair of twisted copper wires, simplifying cable configurations and reducing installation complexity.

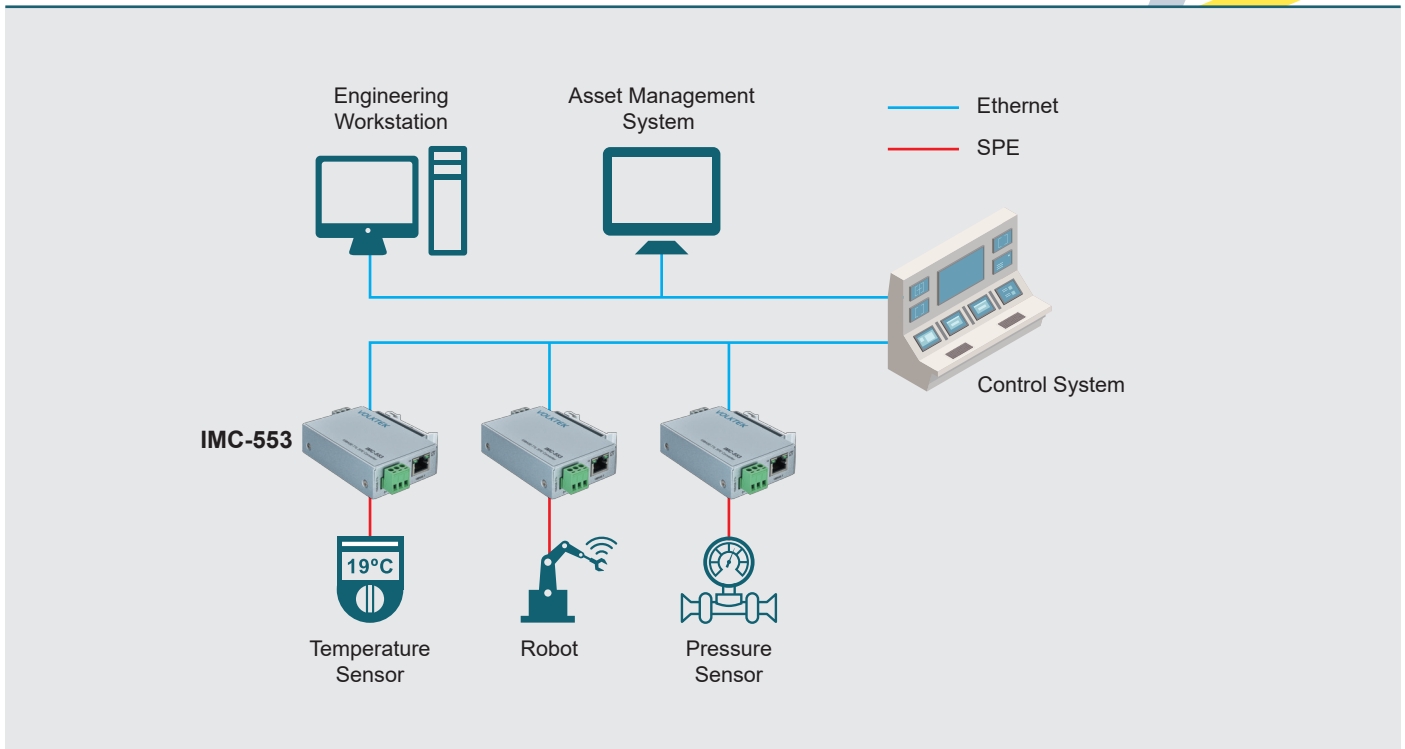
#### Space and Weight Savings

The smaller and lighter nature of SPE cables makes them suitable for applications where space and weight considerations are crucial, contributing to improved industrial IoT performance.

#### Ruggedized Components Designed for Harsh Industrial Environments

Built with industrial-grade components, good thermal conductivity, and enclosed in an IP30 Aluminum case, this Single Pair Ethernet Switch is resistant to extreme environments, vibration, EMI (electromagnetic interference), ESD (electrostatic discharge), power surge, over-voltage, over-current, and reverse polarity. It withstands operation at extreme temperatures between -40°C~75°C (-40°F~167°F). It follows international safety standards like CE, FCC, and ROHS for safe operation.

## Applications



## Specifications

Standards	
IEEE 802.3	10BASE-T 10BASE-T1L (Compliant)
Interface	
Ports	1 x 10BASE-T Port 1 x 10BASE-T1L Port
DIP Switch	Auto, Master/Slave
LED Panel	System: PWR (G) SPE: LNK/ACT (G/A) 10BASE-T: 10 (G), LNK/ACT (G)
Power	
Input Voltage	12~48VDC
Power Consumption	System: 3W
Mechanical and Environment	
Housing	Metal (IP30 Protection)
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	205.5 g (0.45 lb)
Dimension (WxHxD)	86.2 x 23.4 x 59.4 mm (3.39 x 0.92 x 2.34 in)

Certifications	
EMI	FCC Part 15 Subpart B Class A EN 55032 / UKCA Class A CISPR 32 Class A EN 55011 / UKCA Class A CISPR 11 Class A
EMS	EN 61000-6-4 / UKCA ICES-003 Issue 7 EN55035 / UKCA EN 61000-6-2 / UKCA 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) IEC 61000-4-8 (PFMF)
Shock Test	IEC 60068-2-27
Freefall Test	IEC 60068-2-31
Vibration	IEC 60068-2-6
Safety	UL 61010-1, UL 61010-2-201
Ordering Information	
IMC-553	Unmanaged 1 x 10BASE-T1L SPE & 1 x 10 BASE-T RJ45 Industrial SPE Media Converter

Note:

\* Specifications subject to change without notice.

\* The highest degree of temperature operation certified by UL is -40°C~75°C (-40°F~167°F).

## Dimension

