



for a greener tomorrow



# BACK TO BASICS WITH CC-LINK IE FIELD BASIC

Integrated automation solutions



Quality, Trust, Innovation

# ETHERNET CONNECTIVITY OUT OF THE BOX

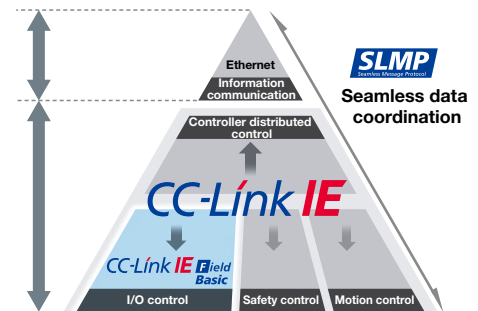
Current market trends are leading to the development of ever higher performing and more sophisticated automation networks but in turn, this has increased the complexity of network configuration, fault-finding and potentially limits flexibility. For small, low cost machines this can place enhanced performance well out of reach simply on a cost basis and is why Mitsubishi Electric has developed CC-Link IE Field Basic – a low-cost, plug and play Ethernet based open network technology that addresses these challenges.



## OVERVIEW

CC-Link IE Field Basic is easily implemented on devices or programmable controllers using software alone and enables CC-Link IE compatibility to be added to existing 100Mb devices without any hardware modifications.

Instead of focussing purely on performance, CC-Link IE Field Basic offers connectivity for a wide range of automation equipment over a standard TCP/IP network. Being TCP/IP based and implemented in the software stack means off-the-shelf Ethernet components can be used in place of more expensive custom parts, linking devices seamlessly with other Ethernet-based technologies including switches, cables, connectors and wireless systems.



## BENEFITS

Providing a simple-to-wire and easily programmable solution, CC-Link IE Field Basic leverages connectivity fitted as standard to all Mitsubishi Electric core automation products. This minimises the need for additional wiring between the PLC and field devices, keeping implementation costs low.

Moreover CC-Link IE Field Basic enables diagnostic and other information to be gathered from these devices. Status data such as alarm codes or process data such as energy usage can be utilised to further improve productivity and add value through faster diagnostics and performance monitoring.

Set up times can be greatly reduced with parameterisation data being sent over the network, reducing commissioning or stoppage time, when for example, a product needs to be exchanged in the field.

- CC-Link IE network integration
- Compatibility with other Ethernet-based network technologies
- Implementable on any existing 100Mb device
- Flexible architecture
- Easy set up
- Networking at no extra cost
- Scalable solution
- Advanced diagnostic capability
- Reduced downtime
- Quality and reliability
- Designed to meet the needs of Industry 4.0

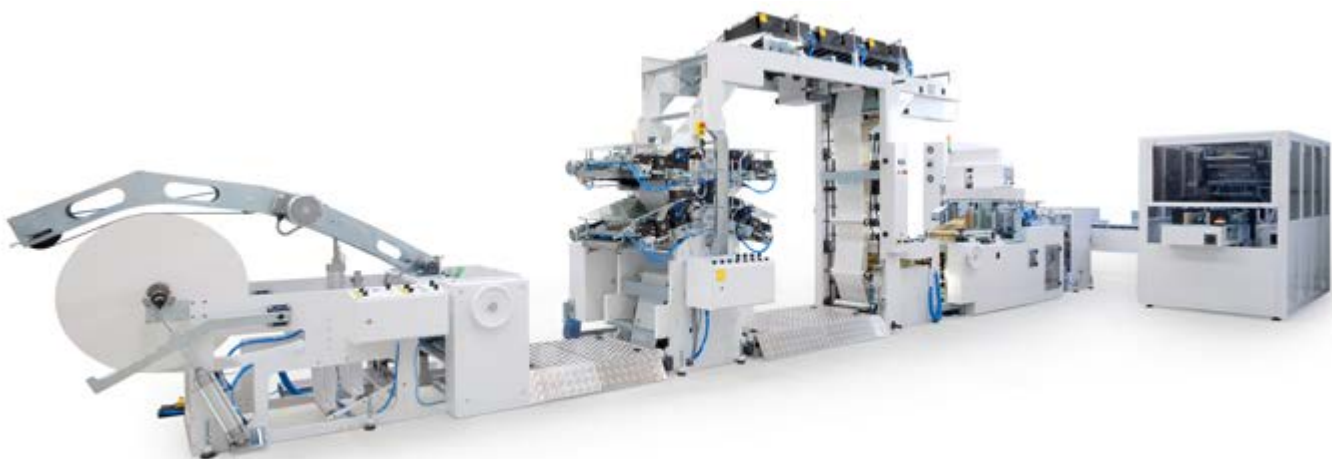




## APPLICATIONS

CC-Link IE Field Basic delivers a totally integrated automation architecture suited to a wide range of applications. From food & beverage producers to consumer packaged goods, life sciences and automotive manufacturers, CC-Link IE Field Basic can enhance network performance and improve productivity with a powerful and highly scalable solution.

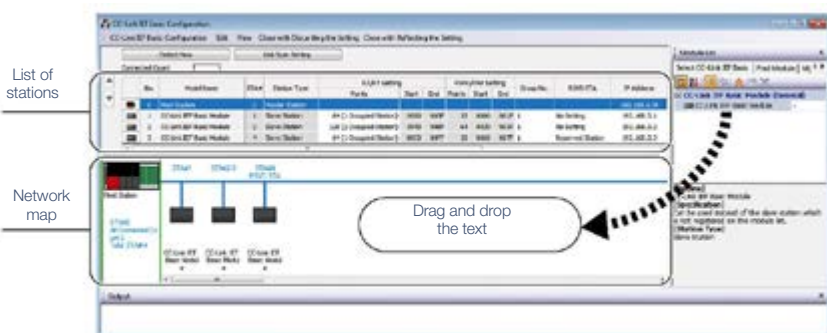
- Energy monitoring
- Building management systems
- Indexing conveyers
- Packaging machinery
- Depositing, Filling and capping



## CONFIGURATION

CC-Link IE Field Basic offers easy to use, drag and drop configuration for a wide array of compatible products, reducing set up times and allowing easier implementation across the whole production line. Further, when used in conjunction with MELSEC programmable controllers there is no need for additional network modules thus reducing space and lowering hardware costs.

- Drag and drop configuration
- Easy setting of slave parameters
- Reduced commissioning times
- Eliminates the need for additional network modules



# The right solution for your application

## CC-Link IE Field Network Basic compatible products

Type	Model	Outline
<b>CC-Link IE Field Network Basic embedded CPU modules</b>		
R□□CPU		MELSEC iQ-R Series CPU module master station
R□□ENCPU		MELSEC iQ-R Series CC-Link IE embedded CPU module master station
Q□□UDVCPU		MELSEC-Q Series High-speed Universal model QCPU module master station
L□□CPU (-P/-BT/-PBT)		MELSEC-L Series CPU module master station
FX5U-□□□□/□□□		MELSEC iQ-F Series FX5U CPU module master station
FX5UC-□□□□/□□□		MELSEC iQ-F Series FX5UC CPU module master station
<b>Inverters</b>		
FR-A800-E		FREQROL-A800 Series Inverter slave station
FR-F800-E		FREQROL-F800 Series Inverter slave station
FR-E700-NE		FREQROL-E700 Series Inverter slave station
<b>AC servos</b>		
MR-JE-C		MELSERVO-JE Series Servo slave station
<b>HMI GOT2000 Series</b>		
GT27□□/□□□□		GT27 model slave station
GT25□□□□/□□□□		GT25 model slave station
GT210□□□□BD		GT21 model slave station
<b>FA sensor MELSENSOR</b>		
MH11CTMF-□□□		Laser displacement sensor MH11 controller slave station
<b>Block type remote modules</b>		
DC Input	NZ2MFB1-32D	32 points, 24 V DC, response time 0...70ms, positive/negative common shared, screw terminal block, 1-wire
AC Input	NZ2MFB2-16A	16 points, 100...120 V AC, 50/60 Hz, screw terminal block, 2-wire
Transister output	NZ2MFB1-32T	32 points, 12/24 V DC (0.5 A), sink type, screw terminal block, 1-wire
	NZ2MFB1-32TE1	32 points, 12/24 V DC (0.1 A), source type, screw terminal block, 1-wire
Contact output	NZ2MFB2-16R	16 points, 24 V DC/240 V AC (2 A), screw terminal block, 2-wire
I/O combined	NZ2MFB1-32DT	Input 16 points, 24 V DC, response time 0...70 ms, positive common Output 16 points, 24 V DC (0.5 A), sink type Screw terminal block, 1-wire
	NZ2MFB1-32DTE1	Input 16 points, 24 V DC, response time 0...70 ms, negative common Output 16 points, 24 V DC (0.1 A), source type screw terminal block, 1-wire



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