

MELSEC ST-Series

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Product introduction of new ST1H-BT

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Product introduction of new CC-Link head station module ST1H-BT

Dear Partner,

Today we would like to inform you about the introduction of the new CC-Link head station module for ST-Series.

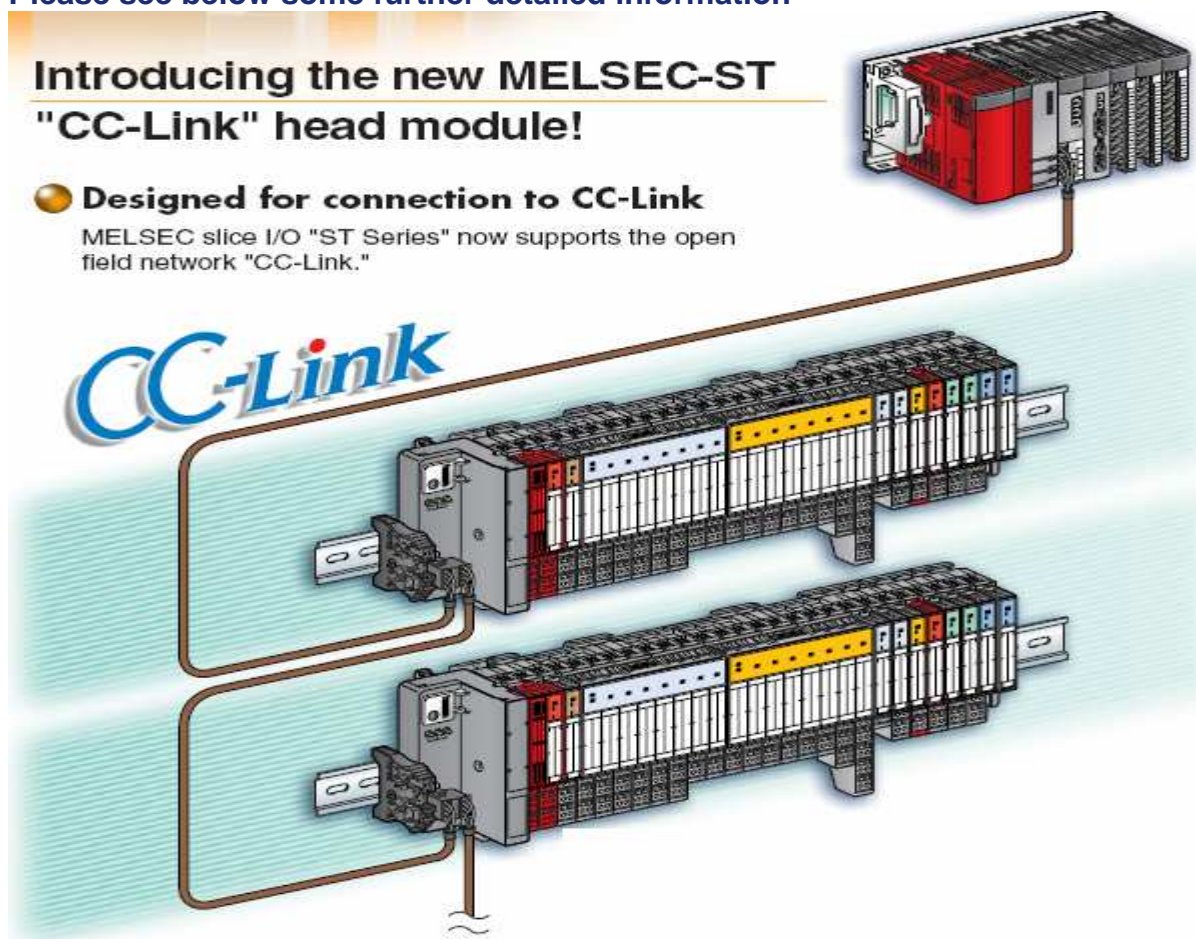
This module have been developed as enhancement for the product range of the sliced I/O ST-Series, with this modules the customer got the possibility to realize a flexible decentralized solution based on CC-Link.

Please see below some further detailed information

Introducing the new MELSEC-ST "CC-Link" head module!

Designed for connection to CC-Link

MELSEC slice I/O "ST Series" now supports the open field network "CC-Link."



Benefits of new ST1H-BT:

Designed for connection to CC-Link

CC-Link is a high-speed field network capable of controlling the system and handling information at the same time, and offers high-speed, reliable I/O response and highly flexible expandability. Due to this distinguished performance the network earned SEMI certification. A Japanese-origin, world standard open field network, CC-Link holds a large market share and has been winning the confidence of customers.

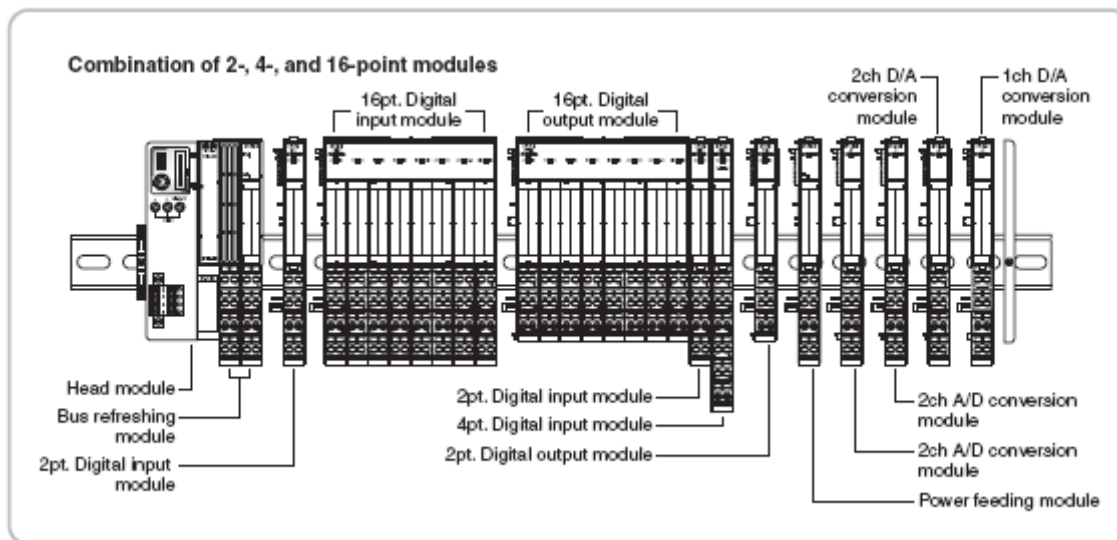
- High-speed communication at a maximum transmission speed of 10 Mbps.
- Remote input/output (RX, RY): 8192 points each network, Remote register (RWw, RWr): 2048 words each network. when CC-Link Version 2.0 is used)
- Integration with 3rd party products.

Key features of CC-Link head module

- CC-Link Version 2.0 compatible.
- Br.n/Bw.n: Maximum 252 points.
- Wr.n/Ww.n: Maximum 52 points.
- Easy to use data mapping.
- Spring clamp type CC-Link connector.
- Transmission speed auto-tracking function.

Flexible configuration

- System configuration is simple as I/O points can be expanded in two-point increments.
- 2-, 4-, 16- and 32 point modules can be combined to provide an efficient system configuration.
- Both I/O modules and intelligent function modules, such as analog modules, can be mounted in one station.
- Up to 63 slice modules can be mounted.



Saving wiring and maintenance

Saving wiring

- Power input is not required to be wired to each I/O module and intelligent function module since it is supplied via the power distribution module and internal bus.
- A spring clamp type or screw clamp type base module is available to meet your application requirements. The spring clamp type base module, which does not require tightening, greatly reduces wiring time.
- The base module can be installed on a standard DIN rail.

Wiring is easily identifiable

- Color-coded parts on each terminal of the base module make it easy to check the wiring.
- Wiring can be checked easily by referring to the wiring diagram printed on the front of the MELSEC-ST module.

Easy maintenance

- A range of fault diagnostic functions are available, including faulty module detection, short circuit protection detection and fuse blown detection.
- Setting and monitoring are easy by connecting the head module to a personal computer installed with configuration software (optional).
- MELSEC-ST module can be mounted on the front face, making it easy to replace.
- A spring clamp type base module prevents wire loosening due to vibration.

No special tools are required

- Special tools are not required to wire the terminals of the base module because the terminals can be wired with a DIN5264-compatible flat blade screwdriver.
- MELSEC-ST can be attached and removed from the base modules without needing any special tools.

Fail-safe functions

- Including output transistors with short circuit protection and overheat protection that provide protection against faults and accidents resulting from miswiring.

Selectable response time

- The input response can be selected from the parameters.

Order information:

Article Name	Article No.	Available
ST1H-BT	214496	end of July '08

Specification

Item		Specification
CC-Link section	CC-Link station type	Remote device station (Ver.2 or Ver.1 remote device station)
	Transmission speed	156 kbps/625 kbps/2.5 Mbps/5 Mbps/10 Mbps (Auto-detected by the head module)
	Number of occupied stations	1 to 4 occupied stations By the points of the slice modules to be installed, the head module auto-optimizes the number of occupied stations.
	Extended cyclic setting	Single, double, quadruple, or octuple setting By the points of the slice modules to be installed, the head module auto-optimizes the extended cyclic setting.
	Connection cable*1	<ul style="list-style-type: none"> • CC-Link dedicated cable • Ver1.10 compatible CC-Link dedicated cable • CC-Link dedicated high-performance cable
MELSEC-ST system section	Maximum number of slice modules	63 (Up to 26 intelligent function modules)*2
	Maximum points of I/O data available for MELSEC-ST system	<ul style="list-style-type: none"> • $\boxed{\text{Br.n}}$ / $\boxed{\text{Bw.n}}$: 252 points for each • $\boxed{\text{Wr.n}}$ / $\boxed{\text{Ww.n}}$: 52 points for each The maximum number of Br.n/Bw.n points decreases by 2 points for each additional power distribution module.
Head module section	Number of occupied I/O points	0 points for each of input and output
	I/O data used in head module	<ul style="list-style-type: none"> • $\boxed{\text{Br.n}}$ / $\boxed{\text{Bw.n}}$: 0 points for each • $\boxed{\text{Wr.n}}$ / $\boxed{\text{Ww.n}}$: 0 points for each
	Number of occupied slices	2
	Terminal block	Spring clamp terminal block
	Applicable wire size	AWG #24 to #12, single wire: 0.5 to 1.78 mm, stranded wire: 0.2 to 2.5 mm ²
	5 V DC internal current consumption	0.41 A
	External dimensions	114.5 (H) x 50.5 (W) x 74.5 (D)[mm]
Weight	0.11 kg	

* 1 Each type of CC-Link dedicated cables, Ver.1.10 compatible CC-Link dedicated cables, and CC-Link dedicated high-performance cables must not be mixed. If mixed, normal data transmission cannot be guaranteed.

Also, connect terminating resistors appropriate to the cable type.

* 2 The number of connectable modules differs depending on the occupied I/O points of the slice modules installed and the intelligent function module.