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General Specifications

F3LP02-0N FA Link H Module

FA-M3



General

The F3LP02-0N FA Link H Module provides a high-speed network that allows information exchange between the FA-M3 Range-free Multi-controllers.

The F3LP02-0N is an FA link H interface module that provides a maximum of 32 stations of data link (one module is counted as one station).

- It allows a maximum of eight modules to be installed in a single FA-M3 main unit, to make up a multi-layer data link. The module can be accessed only from a designated CPU.
- The number of link points can be specified arbitrarily for each CPU.
- Bus-type communication channels are employed to facilitate the expansion of modules.
- FA Link H Modules can be connected easily with two pairs of shielded twist-pair cables.



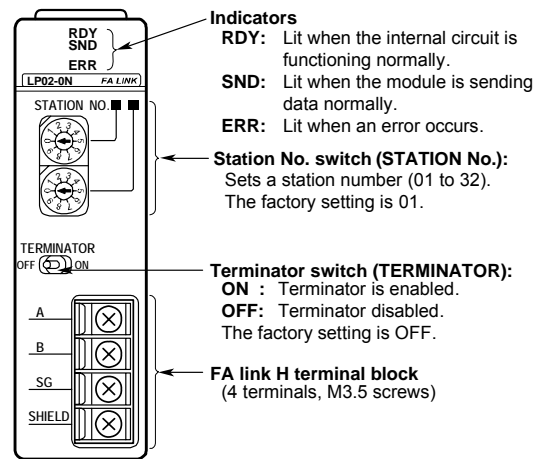
Specifications

Item	Specification
Number of stations	32 max.
Link relays	2048 points/module - F3SP05/08 and F3SP21: 2048 points - F3SP25, F3SP28, F3SP35 and F3SP53: 8192 points (non-continuous) - F3SP38, F3SP58/59 and F3SP66/67: 16,384 points (non-continuous)
Link register	2048/module - F3SP05/08 and F3SP21: 2048 points - F3SP25, F3SP28, F3SP35 and F3SP53: 8192 points (non-continuous) - F3SP38, F3SP58/59 and F3SP66/67: 16,384 points (non-continuous)
Maximum number of links per station	Same as above.
Link relay and link register assignments	Link relay: On a 16-point basis Link register: On a 1-point basis
Number of modules	F3SP05/08 and F3SP21: 2 max. F3SP25, F3SP28, F3SP35, F3SP38, F3SP53 and F3SP58/59, F3SP66/67: 8 max.
Transmission speed	125 K, 250 K, 625 K or 1.25 Mbps (switch selectable)
Transmission channel type	1-bus type
Termination resistance	110 Ω at both ends (specified by a built-in switch when the line is terminated)
Transmission distance	1 km, 500 m, 250 m or 100 m (depends on transmission speed)
Communication system	Token-bus system
Synchronization	Frame synchronization
Transmission format	Conforms to HDLC.
Modulation and encoding system	NRZI system
Error detection	CRC-CCITT, timeout
RAS features	Error detection through local loopback, hardware self-diagnostics, special relay and register functions
Transmission media	Shielded twisted-pair cable (AWG20)
Current consumption	470 mA
External connection	4-point terminal block, M3.5 screws
External dimensions	28.9 (W) x 100 (H) x 83.2 (D) mm ^(note)
Weight	120 g

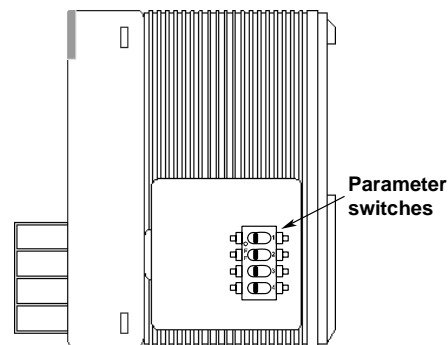
Note: The given dimensions exclude protrusions (See "External Dimensions" for details).

Components and Functions

■ Front View



■ Right Side View

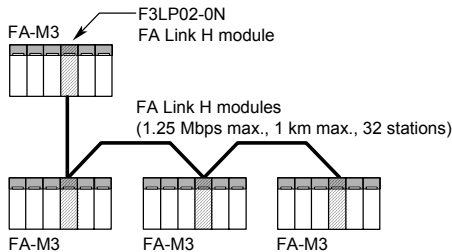


Note: This figure is drawn with the panel cover removed.

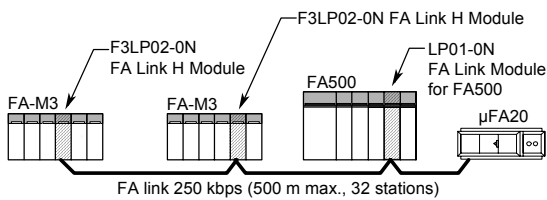
No.	Parameter	OFF	ON	Factory setting	No. 2	
					Switch	OFF	ON
1	Transmission speed	See table to the right.	OFF	OFF	No. 1 OFF	1.25 Mbps
					ON	250 Kbps
2	Operation mode	Normal	High speed	OFF	No. 1 ON	625 Kbps
					ON	125 Kbps
3	(Not used)	—	—	OFF		

System Configuration Example

1. Connecting between FA-M3 Controllers
The F3LP02-0N can be used to configure a system in which communication speed can be as high as 1.25 Mbps.

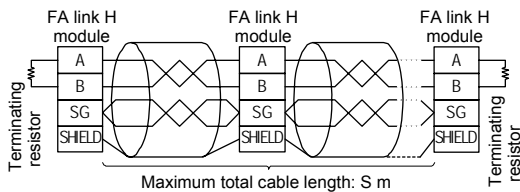


2. Connecting between FA-M3 Controllers, FA500 and μ FA20



- Set the transmission speed of the FA Link H module to 250 kbps.

External Connection Diagram



1. The maximum total cable length (S) varies depending on the transmission speed used.
2. The SHIELD terminal of this module is internally connected to the FG terminal of the FA-M3 power supply module.
3. This module has a built-in terminator. When configuring the module at the end of the cable, set the terminator switch to ON.

Operating Environment

- The table below lists the CPU modules that can be used with this module.

CPU Module	Style No. and ROM Rev.
F3SP05/08/21, F3SP25 and F3SP35	S1 Rev. 8 or later
F3SP05, F3SP28, F3SP38, F3SP53, F3SP58/59, F3SP66/67	—

Note: For the revision number of a CPU module, see the revision number label on the side panel.

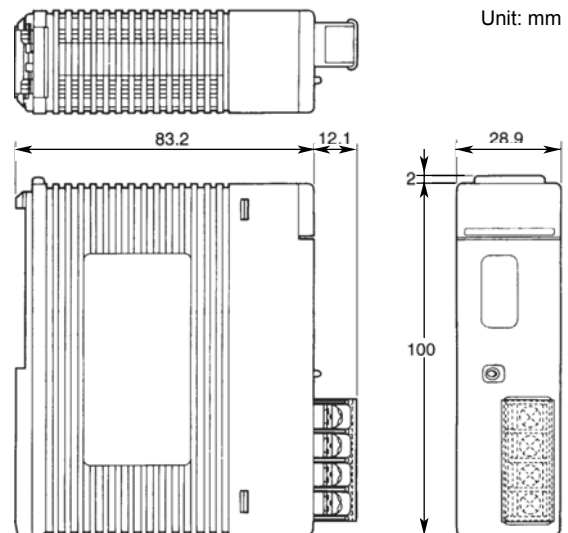
- The following table summarizes the requirements for the Ladder Diagram Support Program M3, which can be used to set up the communications conditions of this module.

Ladder Diagram Support Program M3	Revision
SF510-E3□	Rev. 1.08 or later

Model and Suffix Codes

Model	Suffix Code	Style Code	Option Code	Description
F3LP02	-0N	.....	.....	32 stations max. 125 k, 250 k, 625 k or 1.25 Mbps 1 km, 500 m, 250 m or 100 m

External Dimensions



General Specifications

F3LP12-0N Fiber-optic FA Link H Module

FA-M3



General

The F3LP12-0N Fiber-optic FA Link H Module is a high-speed network that allows information exchange between the FA-M3 Range-free Multi-controllers.

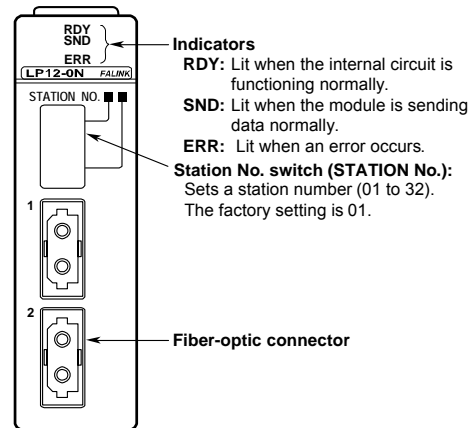
The F3LP12-0N is a Fiber-optic FA link H interface module that provides a maximum of 32 stations of data link (one module is counted as one station).

- It allows a maximum of eight modules to be installed in a single FA-M3 main unit, to making up a multi-layer data link. The module can only be accessed from a designated CPU.
- The number of link points can be specified arbitrarily for each CPU.
- It supports daisy-chain configuration using fiber-optic cables.
- It does not guarantee normal data link in the entire network if any one station on the network is powered off.

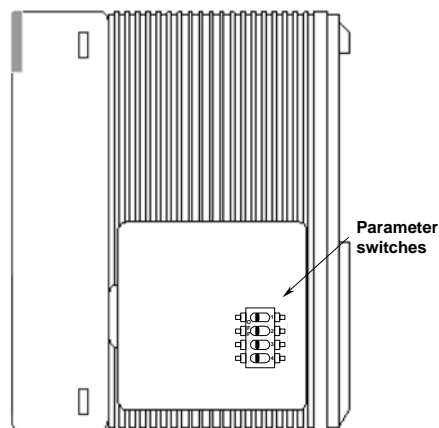


Components and Functions

■ Front View



■ Right Side View



Note: This figure is drawn with the panel cover removed.

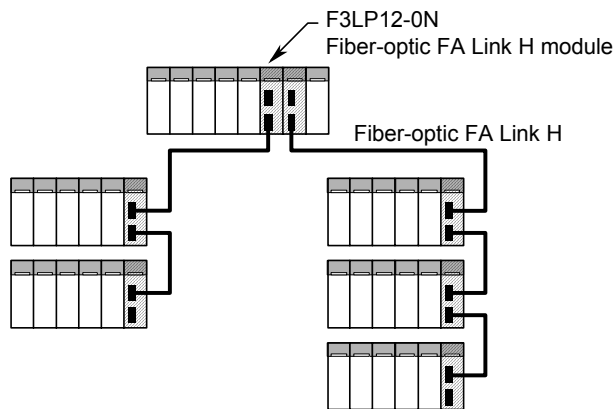
Specifications

Item	Specification
Number of stations	32 max.
Link relays	2048 points/module - F3SP05/08 and F3SP21: 2048 points - F3SP25, F3SP28, F3SP35 and F3SP53: 8192 points (non-continuous) - F3SP38, F3SP58/59 and F3SP66/67: 16,384 points (non-continuous)
Link registers	2048/module - F3SP05/08 and F3SP21: 2048 points - F3SP25, F3SP28, F3SP35 and F3SP53: 8192 points (non-continuous) - F3SP38, F3SP58/59 and F3SP66/67: 16,384 points (non-continuous)
Max. number of links per station	Same as above.
Link relay and link register assignments	Link relay: On a 16-point basis Link register: On a 1-point basis
Number of modules	F3SP05/08 and F3SP21: 2 max. F3SP25, F3SP28, F3SP35, F3SP38, F3SP53 and F3SP58/59, F3SP66/67: 8 max.
Transmission speed	1.25 Mbps
Transmission channel type	Daisy chain
Transmission distance	Maximum total distance: 10 km Maximum distance between stations: 1 km
Communication system	Token ring
Synchronization	Frame synchronization
Transmission format	Conforms to HDLC.
Modulation and encoding system	NRZI system
Error detection	CRC-CCITT
RAS feature	Self-diagnostics
Transmission media	2-core optical fiber (hard plastic clad quartz fiber-optic H-PCF)
Current consumption	495 mA
External dimensions	28.9 (W) x 100 (H) x 83.2 (D) mm
Weight	110 g

No.	Parameter	OFF	ON	Factory setting
1	Intermediate station	Terminal station	Intermediate station	OFF
2	(Not used)	—	—	OFF
3	Operation mode	Normal	High speed	OFF
4	(Not used)	—	—	OFF

Configuration Example

■ Daisy-chain configuration



1. The maximum distance between stations is 1 km and the maximum total distance is 10 km.
2. The attached blank cover must be placed on any unused port of the terminating station.

Operating Environment

- There is no restriction on the type of CPU modules that can be used with this module.

CPU Module	Style No. and ROM Rev.
F3SP05/08/21, F3SP25 and F3SP35	S1 Rev. 8 or later
F3SP05, F3SP28, F3SP38, F3SP53, F3SP58/59, F3SP66/67	—

Note: For the revision number of a CPU module, see the revision number label on the side panel.

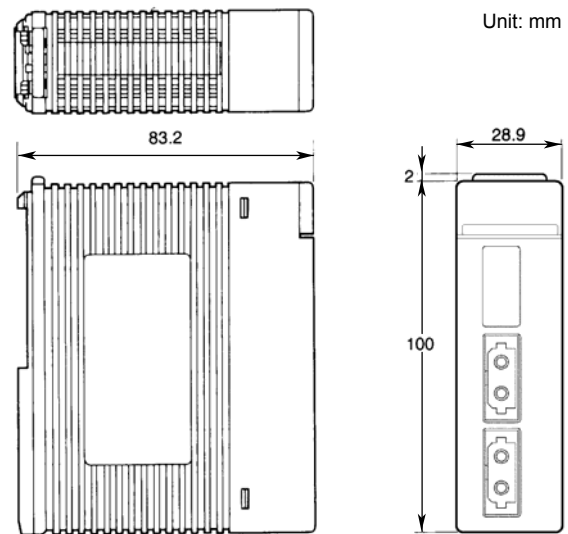
- The following table summarizes the requirements for the Ladder Diagram Support Program M3, which can be used to set up the communications conditions of this module.

Ladder Diagram Support Program M3	Revision
SF510-E3□	Rev. 1.08 or later

Model and Suffix Codes

Model	Suffix Code	Style Code	Option Code	Description
F3LP12	-0N	.....	.....	32 stations max. Maximum total distance: 10 km Maximum distance between stations: 1km 1.25Mbps

External Dimensions



Optional Accessories

The customer should prepare fiber-optic cables satisfying the requirements listed below when connecting between Fiber-optic FA Link H modules. See Fiber-optic Cables (GS34M6C92-01E) for details on fiber-optic cables.

■ Specifications for Fiber-optic Cable Cores

Fiber-optic Cable Core	DK-HPF200/230	HC-20/07
	(for KM60)	(for KM60, KM61, KM62, KM65)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries
Core diameter	200±5 μm	
Clad diameter	230 ⁺⁰ ₋₁₀ μm	
Transmission loss	7 dB/km max. (λ = 0.85 μm, Ta=25°C)	7 dB/km max. (λ = 0.81 μm, Ta=25°C)

■ Specifications for Fiber-optic Cable Connectors

Fiber-optic Connector	KF-07	CF-2001H, CF-2071H
	(for KM60)	(for KM60, KM61, KM62, KM65)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries
Specifications	Bi-directional, lever lock, bonding, polished	Bi-directional, lever lock, bonding, polished
Fiber-optic Connector	CF-2011, CF-2071	
	(for KM65)	
Vendor	Sumitomo Electric Industries	
Specifications	Bi-directional, lever lock, crimping, cut	

General Specifications

F3LR01-0N Fiber-optic FA-bus Module

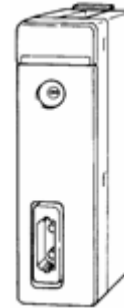
FA-M3



General

The F3LR01-0N is an interface module for constructing a system that requires distributed placement of multiple modules. The user can build up an efficient remote I/O system by installing F3LR01-0N modules in the FA-M3 main- and sub-units and connecting them via a fiber-optic FA-bus (fiber-optic cable).

- With the 10-Mbps high-speed communications capability of the F3LR01-0N, the user does not have to worry about the I/O refresh time in ladder programming.
- The sub-unit can accommodate all types of special modules so that the user can gain access to the modules in the same way as with the modules in the main unit (except for the FA link H, Fiber-optic FA link H, Ethernet, FL-net and YHLS modules).
- No specific communications setup (environment setup) is required.
- The optical transmission system makes the F3LR01-0N highly immune to noise.



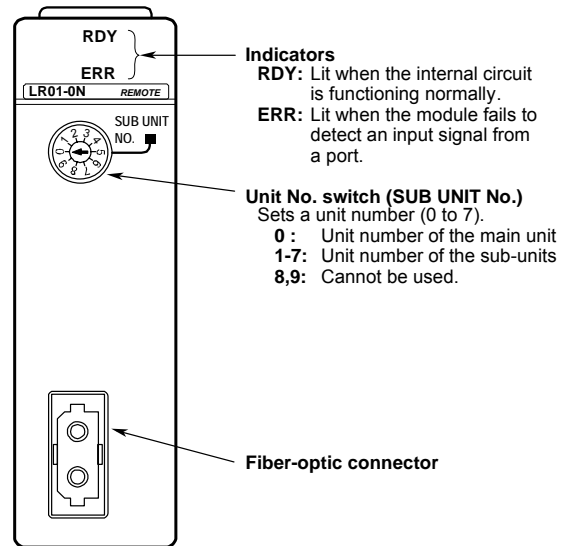
Specifications

Item	Specification
Transmission speed	10 Mbps
Transmission media	2-core optical fiber (hard plastic clad quartz fiber-optic H-PCF)
Transmission distance	Maximum total distance: 200 m Maximum distance between stations: 200 m
Transmission configuration	Star
Maximum number of sub-units (systems)	7 (systems)
RAS features	Shutdown I/O contact output on transmission channel error, reporting of transmission channel error location
Current consumption	220 mA
External dimensions	28.9 (W) x 100 (H) x 83.2 (D) mm
Weight	100 g

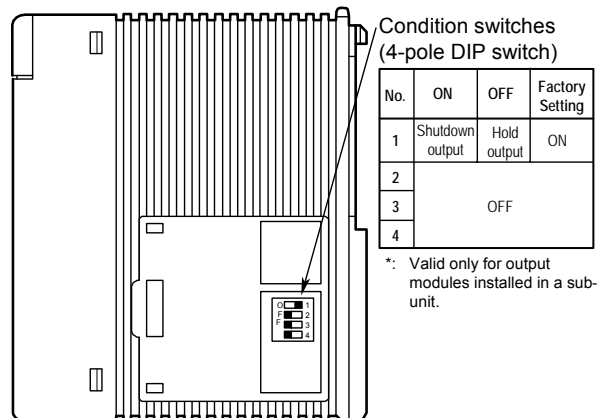
Note: The maximum number of systems when μ -bus master station module are used is 1 system less than the value above for each μ -bus master station.

Components and Functions

■ Front View



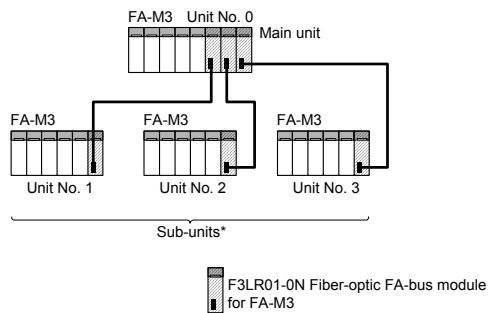
■ Right Side View



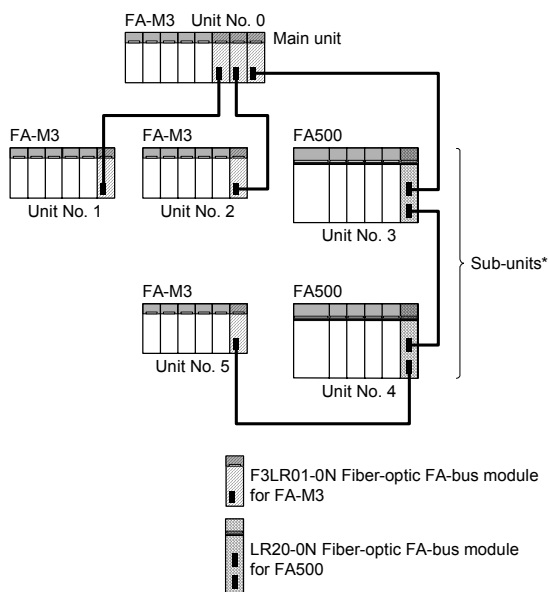
Note: This figure is drawn with the panel cover removed.

System Configuration Example

■ Star Configuration



■ Daisy-chain + Star Configuration



*: Maximum number of sub-units: 7

Restrictions on System Configuration

Item	Description
Maximum total distance	200 m
Number of connectable sub-units	7 max.
Number of fiber-optic FA-bus modules installable in a main unit	7 max. (no restrictions on the installation location)
Number of fiber-optic FA-bus modules installable in a sub-unit	1 max. (no restrictions on the installation location)
Modules installable in a sub-unit	All I/O modules and special modules except F3LP□□, F3LE01, F3LX0□, F3LH0□ and F3NX01 modules.

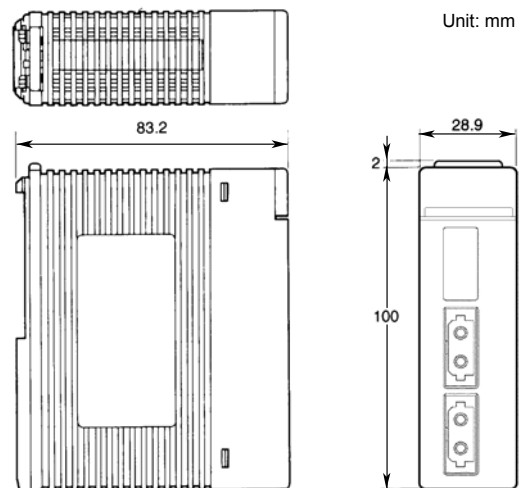
Operating Environment

There is no restriction on the type of CPU modules that can be used with this module.

Model and Suffix Codes

Model	Suffix Code	Style Code	Option Code	Description
F3LR01	-0N	.....	.....	Maximum total distance: 200 m Maximum distance between stations: 200 m

External Dimensions



Optional Accessories

Prepare fiber-optic cables satisfying the requirements listed below when connecting Fiber-optic FA-bus modules for extension. See Fiber-optic Cables (GS 34M6C92-01E) for details on fiber-optic cables.

■ Specifications for Fiber-optic Cable Cores

Fiber-optic Cable Core	DK-HPF200/230	HC-20/07
	(for KM60)	(for KM60, KM61, KM62, KM65)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries
Core diameter	200±5 μm	
Clad diameter	230 ⁺⁰ ₋₁₀ μm	
Transmission loss	7 dB/km max. (λ =0.85 μm, Ta=25°C)	7 dB/km max. (λ =0.81 μm, Ta=25°C)

■ Specifications for Fiber-optic Cable Connectors

Fiber-optic Connector	KF-07	CF-2001H, CF-2071H
	(for KM60)	(for KM60, KM61, KM62)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries
Specifications	Bi-directional, lever lock, bonding, polished	Bi-directional, lever lock, bonding, polished
Fiber-optic Connector	CF-2011, CF-2071	
	(for KM65)	
Vendor	Sumitomo Electric Industries	
Specifications	Bi-directional, lever lock, crimping, cut	

General Specifications

F3LR02-0N Fiber-optic FA-bus Type 2 Module

FA-M3

General

The F3LR02-0N is an interface module for constructing a system that requires distributed placement of multiple modules. The user can build up an efficient remote I/O system by installing F3LR02-0N modules in the FA-M3 main- and sub-units and connecting them via a fiber-optic FA-bus (fiber-optic cable).

- With the 10-Mbps high-speed communication capability of the F3LR02-0N, the user does not have to worry about the I/O refresh time in ladder programming.
- The sub-unit can accommodate all types of special modules so that the user can gain access to the modules in the same way as with the modules in the main unit (except for the FA link H, Fiber-optic FA link H, Ethernet, FL-net and YHLS modules).
- No specific communication setup (environment setup) is required.
- The optical transmission system makes the F3LR02-0N highly immune to noise.
- A single sub-unit can be segmented into a maximum of 8 stations.
- A 2-port (send/receive) system allows daisy-chain configuration.
- The loop system is switched into two pairs of daisy-chain systems when a disconnection occurs in the system, thereby improving system reliability.

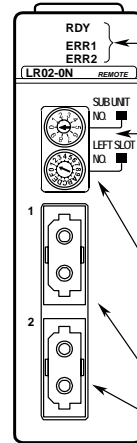
Specifications

Item	Specification
Transmission speed	10 Mbps
Transmission media	2-core optical fiber (hard plastic clad quartz fiber-optic H-PCF)
Transmission distance	Maximum distance between stations: 500 m Maximum total distance: 1.4 km (3 stations)
Transmission configuration	Star, daisy chain, loop
Maximum number of sub-stations	56
Maximum number of systems	7 (Note)
Maximum number of sub-stations per system	32
Maximum total distance per system	1.4 km (3 stations)
Maximum distance between stations	500 m
RAS features	Shutdown I/O contact output on transmission channel error, reporting of transmission channel error location
Current consumption	460 mA
External dimensions	28.9 (W) x 100 (H) x 83.2 (D) mm
Weight	120 g

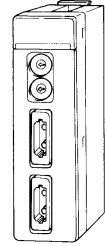
Note: The maximum number of systems when μ -bus master station module are used is 1 system less than the value above for each μ -bus master station.

Components and Functions

Front View



- Indicators**
RDY : Lit when the internal circuit is functioning normally.
ERR1, ERR2 : Lit when the module fails to detect an input signal from a port.
- Unit No. switch (SUB UNIT No.):**
 Sets a unit number (0 to 7).
 0 : Unit number of the main unit
 1-7 : Unit number of sub-units
 8, 9 : Cannot be used.
- First slot number switch (LEFT SLOT NO.)**
 Used to set the first slot number (hexadecimal) of the base module.
- Fiber-optic connector**



Condition Switches

No.	Meaning	OFF	ON	Factory set
1 ^{*1}	Hold/reset output on communication error	Hold output	Shutdown output	ON
2	Port used	Port 1	Both ports ^{*2}	OFF
3	Channel configuration	Daisy chain or star	Loop	OFF
4	Reserved	—	—	OFF

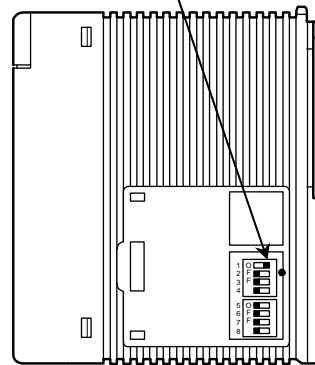
*1: Valid only for output modules installed in a sub-unit.

*2: Both port 1 and port 2 are used.

Light Power Setup Switches

No.	Meaning	Distance between stations (Fiber-optic cable length) (m)							
		OFF	ON	OFF	ON	OFF	ON	OFF	ON
5	Port 1 intensity	OFF	ON	OFF	ON	OFF	ON	OFF	ON
6		0 - 200	200 - 300	300 - 400	400 - 500				
7	Port 2 intensity	OFF	ON	OFF	ON	OFF	ON	OFF	ON
8		0 - 200	200 - 300	300 - 400	400 - 500				

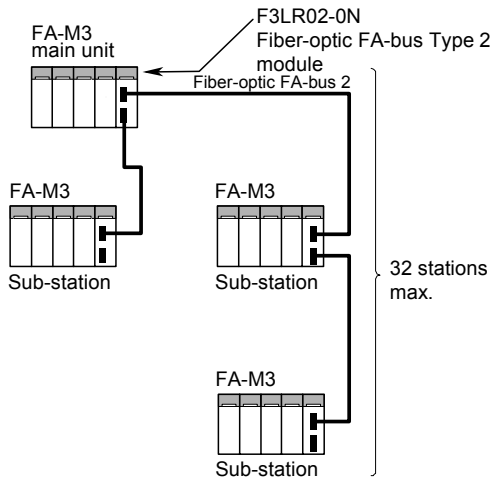
Right Side View



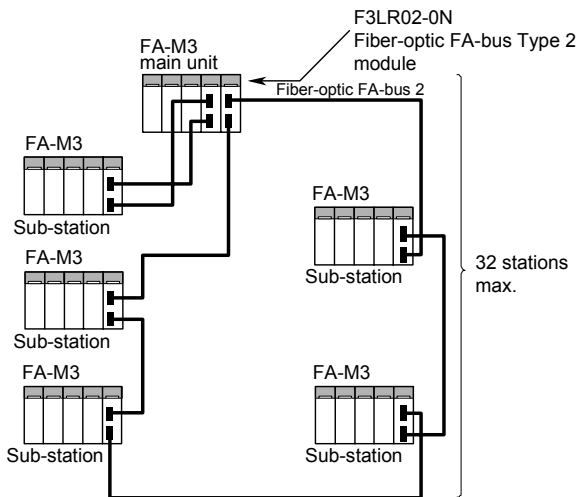
Note: This figure is drawn with the panel cover removed.

System Configuration Example

■ Daisy-chain configuration



■ Loop configuration



Restrictions on System Configuration

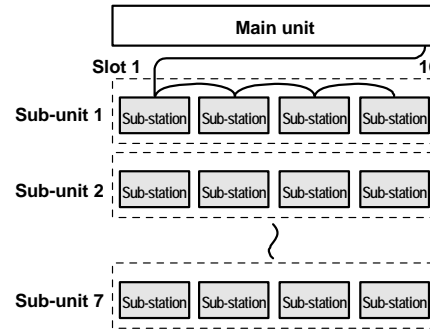
Item	Description
Number of Fiber-optic FA-bus Type 2 modules installable in a master station	No restriction
Number of Fiber-optic FA-bus Type 2 modules installable in a sub-station	1 max.
Modules installable in a sub-station	All I/O modules and special modules except F3LP□□, F3LE01, F3LX0□, F3LH0□ and F3NX01 modules.

Substation Configuration

- Substation Configuration Example

The user can configure two or more sub-stations by splitting a sub-unit using the fiber-optic FA-bus type 2. A sub-unit logically consists of 16 slots.

A maximum of 7 sub-units can be used with the main unit.



- Subunit Split Patterns

Sub-units can be split in several patterns. Select an appropriate pattern according to the configuration of your system.

Split pattern	Slot No.																Number of sub-stations
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
①	F3BU09								F3BU04								2
②	F3BU06				F3BU06				F3BU06				F3BU06				2
③	F3BU06				F3BU04				F3BU04				F3BU04				3
④	F3BU04				F3BU04				F3BU06				F3BU04				3
⑤	F3BU04				F3BU04				F3BU04				F3BU04				4
⑥	F3BU04	Free	F3BU04	Free	F3BU04	Free	F3BU04	Free	F3BU04	Free	F3BU04	Free	F3BU04	Free	F3BU04	Free	8

When pattern (3) is used, for example, it is possible to connect together up to 7 sub-units, providing a maximum of 21 stations. A 32-station system (maximum configurable system) can be configured by combining 6 sets of pattern (5) and 1 set of pattern (6). The number of I/O modules that can be installed in pattern (6) is 1 module per sub-station.

Number of Sub-stations and Maximum Total Distance (m)

Number of Sub-stations	Maximum Total Distance (m)	Number of Sub-stations	Maximum Total Distance (m)
1	500	17	880
2	1000	18	840
3	1400	19	800
4	1380	20	760
5	1340	21	730
6	1300	22	690
7	1260	23	650
8	1230	24	610
9	1190	25	570
10	1150	26	530
11	1110	27	500
12	1070	28	460
13	1030	29	420
14	1000	30	380
15	960	31	340
16	920	32	300

Operating Environment

- The following table lists the type of CPU modules that can be used with this module.

CPU Module	Style No. and ROM Rev. ¹
F3SP21, F3SP25 and F3SP35	S1 Rev. 8 or later ²
F3SP05/08, F3SP28, F3SP38, F3SP53, F3SP58/59, F3SP66/67	—
F3BP20, F3BP30 and F3FP36	—

*1: For the revision number of a CPU module, see the revision number label on the side panel.

*2: Supports logging of transmission channel error location.

- The following table summarizes the requirements for the Ladder Diagram Support Program M3, which can be used to set up the communications conditions of this module.

Ladder Diagram Support Program M3	Revision
SF510-E3□	Rev. 1.08 or later

*: Supports logging of transmission channel error location.

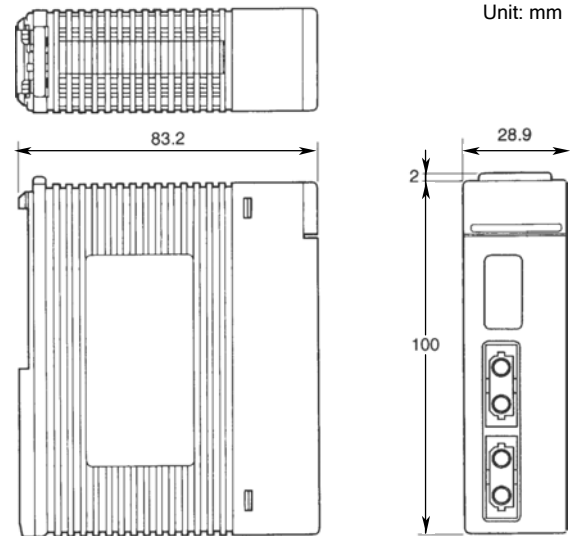
- The following table lists the type of base modules that can be used with this module.

Base Module	ID Mark
F3BU04	R 01 or later
F3BU05	—
F3BU06	R 01 or later
F3BU09	—
F3BU13	—
F3BU16	—

Model and Suffix Codes

Model	Suffix Code	Style Code	Option Code	Description
F3LR02	-0N	.....	.....	Maximum total distance: 1.4 km Maximum distance between stations: 500 m

External Dimensions



Optional Accessories

Prepare fiber-optic cables satisfying the requirements listed below when connecting Fiber-optic FA-bus Type 2 modules for extension. See Fiber-optic Cables (GS 34M6C92-01E) for details on fiber-optic cables.

■ Specifications for Fiber-optic Cable Cores

Fiber-optic Cable Core	DK-HPF200/230	HC-20/07
	(for KM60)	(for KM60, KM61, KM62, KM65)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries
Core diameter	200±5 μm	
Clad diameter	230 ⁺⁰ ₋₁₀ μm	
Transmission loss	7 dB/km max. (λ=0.85 μm, Ta=25°C)	7 dB/km max. (λ=0.81 μm, Ta=25°C)

■ Specifications for Fiber-optic Cable Connectors

Fiber-optic Connector	KF-07	CF-2001H, CF-2071H
	(for KM60)	(for KM60, KM61, KM62, KM67)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries
Specifications	Bi-directional, lever lock, bonding, polished	Bi-directional, lever lock, bonding, polished
Fiber-optic Connector	CF-2011, CF-2071	
	(for KM65)	
Vendor	Sumitomo Electric Industries	
Specifications	Bi-directional, lever lock, crimping, cut	

General Specifications

F3LR02-1W FA-bus Type 2 Module

FA-M3



General

The F3LR02-1W is an interface module for constructing a system that requires distributed placement of multiple modules. The user can build up an efficient remote I/O system by installing F3LR02-1W modules in the FA-M3 main- and sub-units and connecting them via a FA-bus.

- With the 10-Mbps high-speed communication capability of the F3LR02-1W, the user does not have to worry about the I/O refresh time in ladder programming.
- The sub-unit can accommodate all types of I/O modules and most types of special modules so that the user can gain access to the modules in the same way as with the modules in the main unit.
- Both daisy-chain and loop configuration options are supported.
- The loop system is switched into two pairs of daisy-chain systems when a disconnection occurs in the system.

Specifications

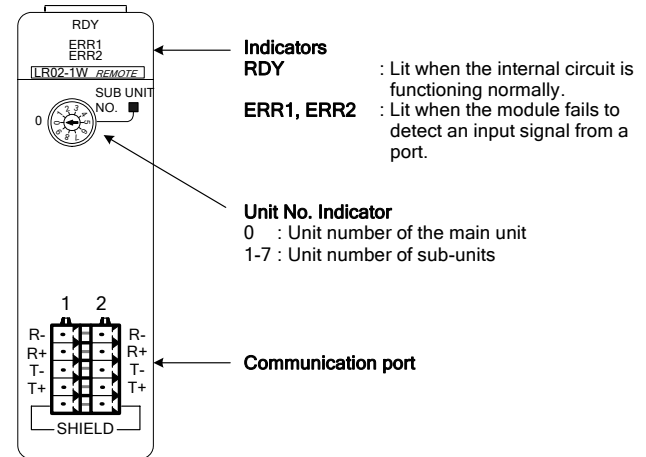
Item	Specification
Transmission speed	10 Mbps
Transmission media	two-pair (4-wire) shielded cable (impedance 100Ω)
Transmission distance	Maximum total distance: 80 m Maximum distance between stations: 10 m
Transmission configuration	Star, daisy chain, loop
Maximum number of subunits (systems)	7 (Note)
RAS features	Shutdown I/O contact output on transmission channel error, reporting of transmission channel error location
Installation location	Must be installed inside panel enclosure or system
Current consumption	320 mA
External dimensions	28.9 (W) x 100 (H) x 83.2 (D) mm
Weight	105 g

Note: The maximum number of systems when μ-bus master station modules are used is 1 system less than the value above for each μ-bus master station.

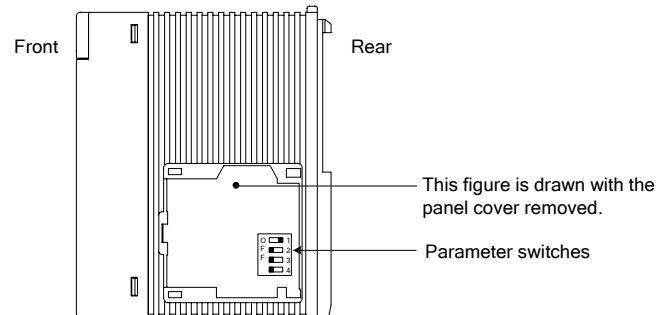
The combined maximum number of systems is 7 when FA bus-2 modules are used with Fiber-optic FA bus-2 modules and Fiber-optic FA bus modules.

Components and Functions

■ Front View



■ Right Side View



Condition Switches

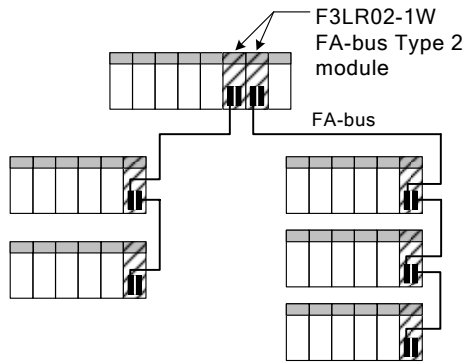
SW No.	Meaning	OFF	ON	Factory setting
1 ¹	Hold/reset output on communication error	Hold output	Shutdown output	ON
2	Port used	Port 1	Both ports ²	OFF
3	Channel configuration	Daisy chain or star	Loop	OFF
4	Reserved	—	—	OFF

*1: Valid only for output modules installed in a sub-unit.

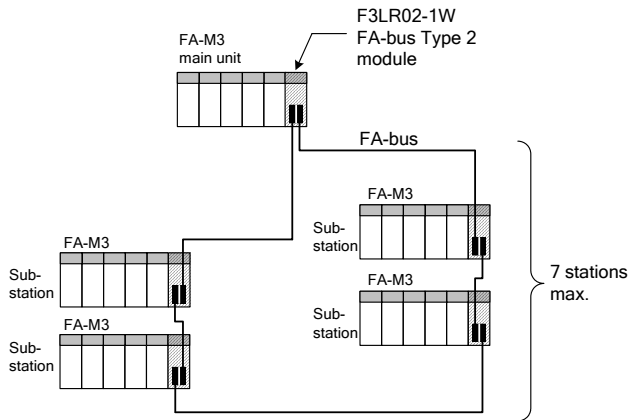
*2: Both port 1 and port 2 are used.

System Configuration Example

■ Daisy-chain configuration



■ Loop configuration



Restrictions on System Configuration

Item	Description
Number of FA-bus Type 2 modules installable in a master station	7
Number of FA-bus Type 2 modules installable in a sub-station	1
Modules installable in a sub-station	All special modules except F3LP□□, F3LE01, F3LX0□, F3LH0□ and F3NX01 modules, all I/O modules

Operating Environment

- The following table lists the type of CPU modules that can be used with this module.

CPU Module	Style No. and ROM Rev. ^{*1}
F3SP21, F3SP25 and F3SP35	S1 Rev. 8 or later ^{*2}
F3SP05, F3SP28, F3SP38, F3SP53, F3SP58/59, F3SP66/67	—
F3BP20, F3BP30 and F3FP36	—

*1: For the revision number of a CPU module, see the revision number label on the side panel.

*2: Supports logging of transmission channel error location.

- The following table summarizes the requirements for the Ladder Diagram Support Program M3 that can be used with the module.

Ladder Diagram Support Program M3	Revision
SF510-E3□	Rev. 1.08 or later ^{*3}

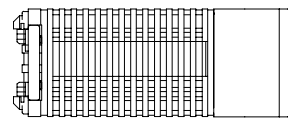
*3: Supports logging of transmission channel error location.

- All versions of the Ladder Programming Tool WideField2 can be used with this module.

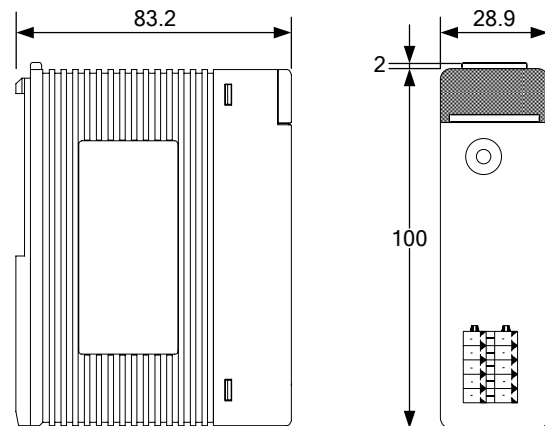
Model and Suffix Codes

Model	Suffix Code	Style Code	Option Code	Description
F3LR02	-1W	.....	.....	Maximum total distance: 80 m Maximum distance between stations: 10 m

External Dimensions



Unit: mm



Cables

Use two-pair (4-wire) shielded cable (impedance 100Ω) when connecting FA-bus Type 2 modules.

Recommended cable: KM80-□□□ (tested for noise immunity, to be purchased separately)

* For details on KM80-□□□, see GS34M6H46-03E.

~~~~~ Items to Specify When Ordering ~~~~~

1. Model and suffix codes