

■ HARDWARE SPECIFICATIONS

The serial communication modules (ALR111 and ALR121) hardware specifications are as shown below.

Table Serial Communication Module Hardware Specifications

Item	Specifications	
	ALR111	ALR121
Model	ALR111	ALR121
Interface	RS-232C	RS-422/RS-485
Connection method	Point-to-point	Point-to-point (RS-422) Multipoint (RS-485)
Communication function	Half-duplex	
Synchronization method	Start-stop synchronization	
Transmission speed	1200/2400/4800/9600/19200/38400 bps (*1)	
Transmission code	ASCII/binary	
Character length	7/8 bits	
Stop bit length	1/2 bits	
Parity check	None/even/odd	
Lag time after data transmission	1 ms (The lag time to start receiving data again after data transmission.)	
Transmission distance	Maximum 15 m	Maximum 1200 m (total extended length)
Installation method	Mounted on ANB10□, ANB11□, ANR10□, AFF50□, AFV10□, AFV30□, or AFV40□	
I/O wiring	AKB131, AKB132, AKB133, AKB134 cables, etc.	Cable with 3-pair shield, AKB161, or AKB162
Wiring connection	D-sub-9-pin (female x 2)	Clamped with terminal block's M4 screws (5 poles x 2)
Current consumption	0.5A	
Weight	0.3 kg	0.3 kg

*1: The applicable transmission speed depends on the communication function, subsystems, and connection method.

An FCS collects data from subsystems or sets data with control calculations to subsystems using the builder functions by way of serial communication modules. A communication module selects only one communication function, thus two ports must have identical communication functions. It is not possible to select different communication function for every port. The communication functions and those transmission speeds for each communication module are as shown in the table below.

Table Communication Functions for Communication Modules

Communication function	ALR111	ALR121
FA-M3 communication	DR	DR
Modbus communication	DR	DR
MELSEC-A communication	DR	DR
YS communication with direct connection	NIL	SG
YS communication	NIL	SG
SLC500 communication	SG	SG
PLC-S communication	SG	SG

DR: Dual-redundant communication is applicable. SG: Only single communication is applicable. NIL: Not complied

Table Transmission Speed by the Communication Function

Communication function	Transmission speed (bps)
FA-M3 communication	1200/2400/4800/9600/19200/38400 (*1)
Modbus communication	1200/2400/4800/9600/19200
MELSEC-A communication	1200/2400/4800/9600/19200
YS communication (direct connection)	9600
YS communication	9600
SLC500 communication	1200/2400/4800/9600/19200
PLC-S communication	1200/2400/4800/9600/19200

*1: The transmission speed of 38400 bps is not available for some PC link modules.