

General Specifications

Cables (for ProSafe-RS)

GS 32Q06M10-31E

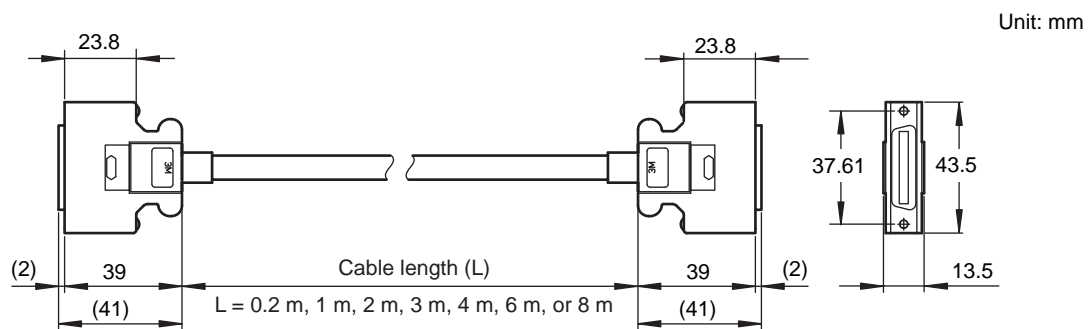
■ GENERAL

This GS provides the specifications for cables used in the ProSafe-RS system.

■ DIMENSIONS

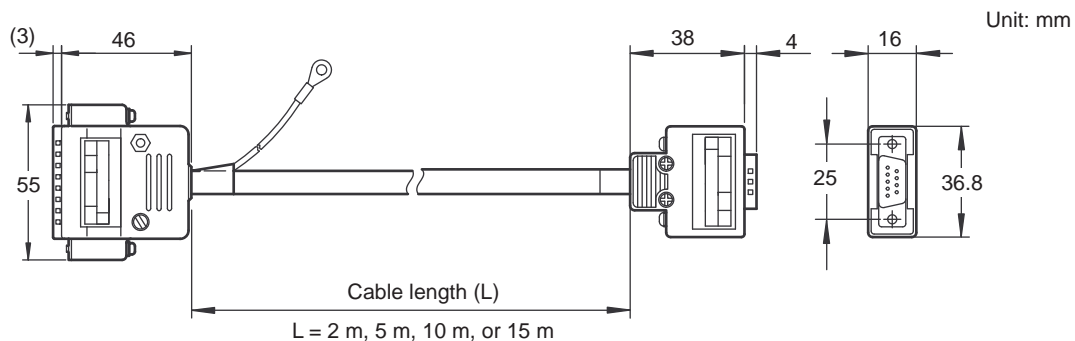
● Cables

YCB301 ESB Bus Cable



F01E.ai

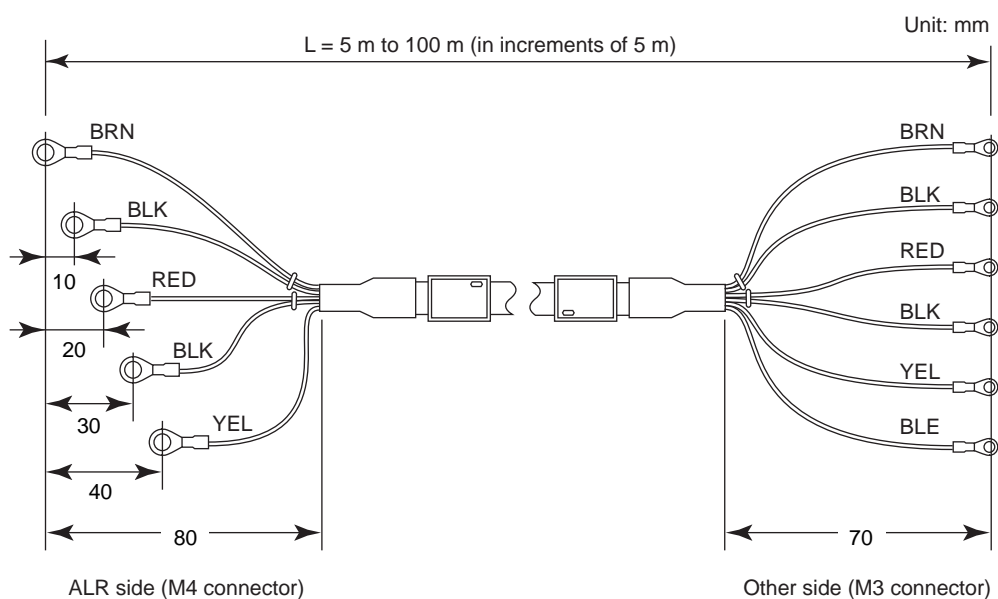
AKB131, AKB132, AKB135, AKB136 RS-232C Cables for Start-Stop Asynchronous Communications (for ALR111 Communications Module)



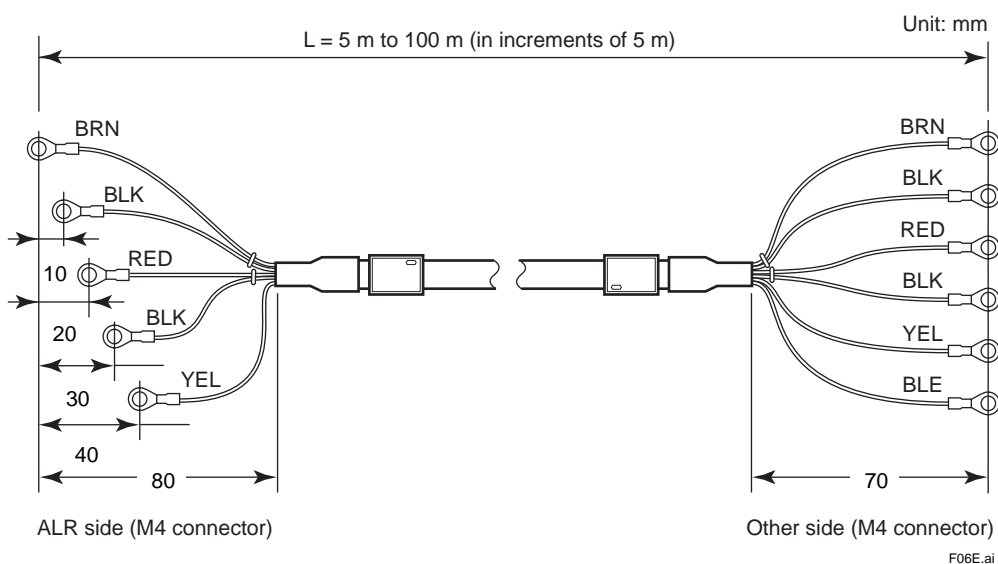
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Note: An FG connection wire is attached to the other side connector of the AKB131 and AKB132 cables.

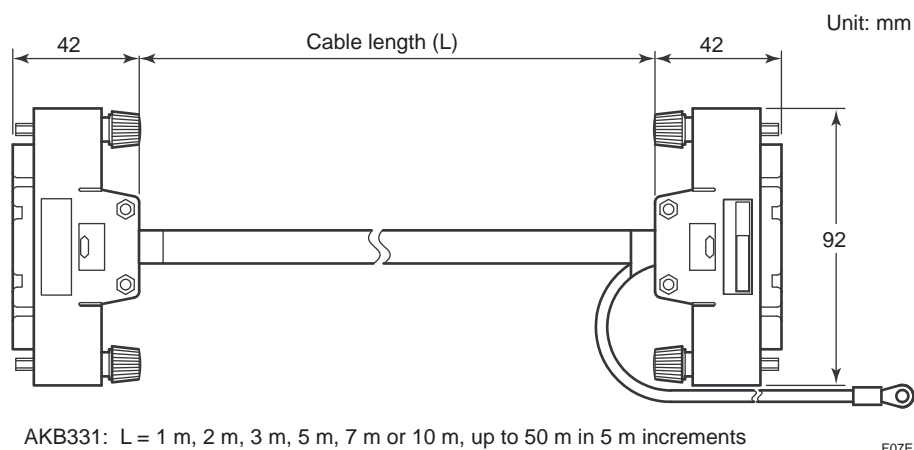
AKB161 RS-422/RS-485 Cable (for ALR121 Communications Module)

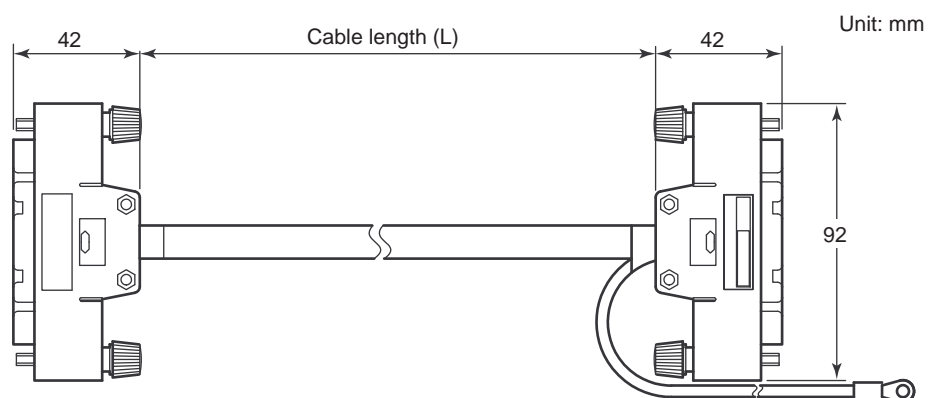


AKB162 RS-422/RS-485 Cable (for ALR121 Communications Module)



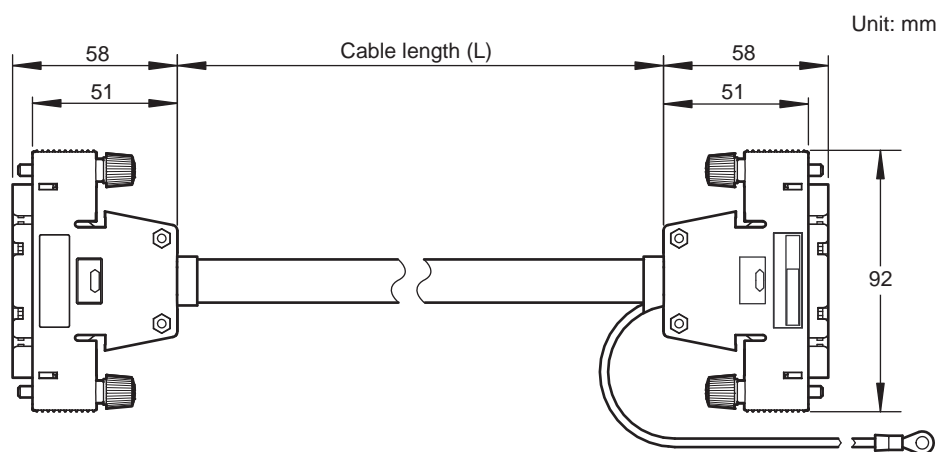
AKB331 Signal Cable (50-50 pins)



AKB611 Signal Cable (50-50 pins)

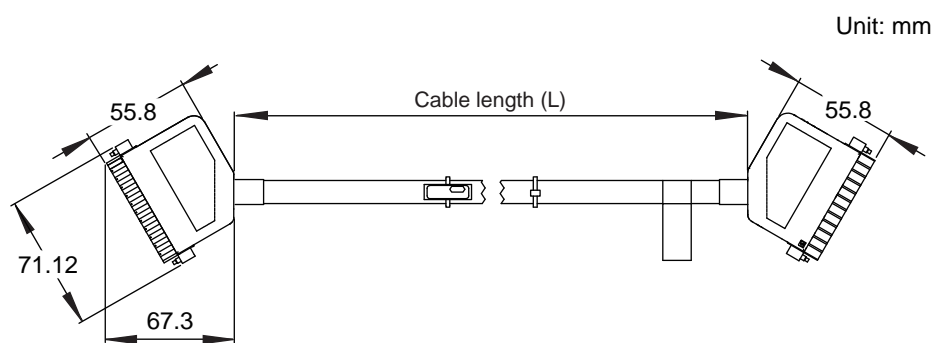
AKB611: L = 2 m, 5 m

F17E.ai

AKB651 Signal Cable (50-50 pins)

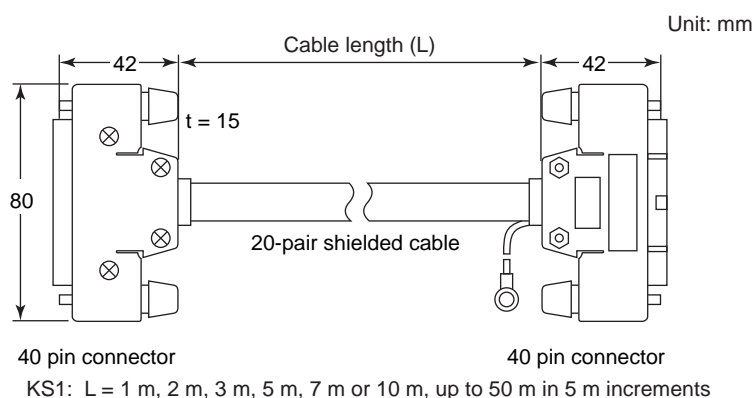
AKB651: L = 1 m, 2 m, 3 m, 5 m, 7 m or 10 m, up to 30 m in 5 m increments

F15E.ai

AKB652 Signal Cable (12 pins)

AKB652: L = 1 m, 2 m, 3 m, 5 m, 7 m, 10 m, 15 m, 20 m, 25 m, or 30 m

F16E.ai

KS1 Cable (40-40 pins)

F08E.ai

Nominal tolerances:

Nominal tolerance is ± 0.8 mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is ± 1.5 mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

Nominal tolerances of cable length:

When the reference dimension is less than or equal to 3000 mm, its nominal tolerance is +5%, -0%.

When the reference dimension is over 3000 mm, its nominal tolerance is +3% or +1m(whichever is smaller), -0%.

■ MODEL AND SUFFIX CODES**EBS Bus Cable**

		Description
Model	YCB301	ESB Bus Cable
Suffix Codes	-C020	Length: 20 cm
	-C100	Length: 1 m
	-C200	Length: 2 m
	-C300	Length: 3 m
	-C400	Length: 4 m
	-C600	Length: 6 m
	-C800	Length: 8 m

RS-232C Modem Cable (for connection between ALR111 and modem)

		Description
Model	AKB131	For connecting RS circuit isolated devices; RS-232C modem cable for start-stop asynchronous communications (9-25 pins)(for connection between ALR111 and modem)
Suffix Codes	-M002	Length: 2 m
	-M005	Length: 5 m
	-M010	Length: 10 m
	-M015	Length: 15 m

RS-232C Null Modem Cable (for connection between ALR111 and RS-232C device)

		Description
Model	AKB132	RS-232C null modem cable for start-stop asynchronous communications (9-25 pins)(for connection between ALR111 and RS-232C device)
Suffix Codes	-M002	Length: 2 m
	-M005	Length: 5 m
	-M010	Length: 10 m
	-M015	Length: 15 m

RS-232C Modem Cable (for connection between ALR111 and modem)

		Description
Model	AKB135	RS-232C modem cable for start-stop asynchronous communications (9-25 pins)(for connection between ALR111 and modem)
Suffix Codes	-M002	Length: 2 m
	-M005	Length: 5 m
	-M010	Length: 10 m
	-M015	Length: 15 m

RS-232C Null Modem Cable (for connection between ALR111 and RS-232C device)

		Description
Model	AKB136	RS-232C null modem cable for start-stop asynchronous communications (9-25 pins)(for connection between ALR111 and RS-232C device)
Suffix Codes	-M002	Length: 2 m
	-M005	Length: 5 m
	-M010	Length: 10 m
	-M015	Length: 15 m

Signal Cables

		Description
Model	AKB161	RS-422/RS-485 Cable Used between ALM side (M4 terminal) and other side (M3 terminal)
Suffix Code	-M □□□	Enter multiples of 5 in the □□□ (the cable comes in 5-m increments). Maximum length: 100 m (suffix code: -M100)

		Description
Model	AKB162	RS-422/RS-485 Cable Used between ALR side (M4 terminal) and other side (M4 terminal)
Suffix Code	-M □□□	Enter multiples of 5 in the □□□ (the cable comes in 5-m increments). Maximum length: 100 m (suffix code: -M100)

		Description
Model	AKB331	Signal Cable (50-50 pins) (for connection between SDV144/SDV531/SDV53A/SDV541/SAT145 and Terminal Board)
Suffix Codes	-M001	Length: 1 m
	-M002	Length: 2 m
	-M003	Length: 3 m
	-M005	Length: 5 m
	-M007	Length: 7 m
	-M010	Length: 10 m
	-M015	Length: 15 m
	-M020	Length: 20 m
	-M025	Length: 25 m
	-M030	Length: 30 m
	-M035	Length: 35 m
	-M040	Length: 40 m
	-M045	Length: 45 m
	-M050	Length: 50 m
Option Codes	/SDV144	Special cable for SDV144 (for ProSafe-RS)
	/SDV53L	Special cable for SDV531-L (for ProSafe-RS)
	/SDV53A	Special cable for SDV53A (for ProSafe-RS)
	/SDV541	Special cable for SDV541 (for ProSafe-RS)
	/SAT14	Special cable for SAT145 (for ProSafe-RS)

Note: When connecting AKB331 with SDV531, SDV53A or SDV541, check if the cable length of AKB331 is proper or not, referring to "Terminal Board is connected" of "■ LIMITATIONS ON DIGITAL OUTPUT MODULE CONNECTIONS" in "ProSafe-RS Outline of I/O Modulesv (for FIO)" (GS 32P06K60-01EN).

Note: A mechanism to prevent wrong type I/O module insertion is supported. When you select option code /SDV144, /SDV53L, /SDV53A, /SDV541 and /SAT14, the same model I/O module with /PRP prevention pin of false insertion option can be used. For example, AKB331-M003/SDV144 can be used only with SDV144 that have /PRP prevention pin of false insertion option.

		Description
Model	AKB611	Signal Cable (for connections between SAR145 and Terminal Board)
Suffix Code	-M002	Cable length : 2 m
	-M005	Cable length : 5 m
Option Code	/SAR14	Special cable for SAR145 (for ProSafe-RS) (*1)

*1: Specify option code "/SAR14" to prevent mistakes at the time of false insertion.

		Description
Model	AKB651	Signal Cable (50-50 pins) (for connections between SDV521/SDV531-L/SDV53A/SDV541 and Terminal Board)
Suffix Codes	-M001	Length: 1 m
	-M002	Length: 2 m
	-M003	Length: 3 m
	-M005	Length: 5 m
	-M007	Length: 7 m
	-M010	Length: 10 m
	-M015	Length: 15 m
	-M020	Length: 20 m
	-M025	Length: 25m
	-M030	Length: 30 m
Option Codes	/SDV521	Special cable for SDV521 (for ProSafe-RS)
	/DV53L	Special cable for SDV531-L (for ProSafe-RS)
	/DV53A	Special cable for SDV53A (for ProSafe-RS)
	/DV541	Special cable for SDV541 (for ProSafe-RS)

Note: When connecting AKB651 with SDV521, SDV531-L, SDV53A or SDV541 check if the cable length of AKB651 is proper or not, referring to "Terminal Board is connected" of "■ LIMITATIONS ON DIGITAL OUTPUT MODULE CONNECTIONS" in "ProSafe-RS Outline of I/O Modules (for FIO)" (GS 32P06K60-01EN).

Note: A mechanism to prevent wrong type I/O module insertion is supported. When you select option code /SDV521, /DV53L, /DV53A and /DV541, the same model I/O module with /PRP prevention pin of false insertion option can be used. For example, AKB651-M003/DV53L can be used only with SDV531-L that have /PRP prevention pin of false insertion option.

		Description
Model	AKB652	Signal Cable (for connections between SDV526 and Terminal Board)
Suffix Codes	-M001	Length: 1 m
	-M002	Length: 2 m
	-M003	Length: 3 m
	-M005	Length: 5 m
	-M007	Length: 7 m
	-M010	Length: 10 m
	-M015	Length: 15 m
	-M020	Length: 20 m
	-M025	Length: 25 m
	-M030	Length: 30 m
Option Code	/SDV526	Special cable for SDV526 (for ProSafe-RS) (*1)

Note: When connecting AKB652 with SDV526, check if the cable length of AKB652 is proper or not, referring to "Terminal Board is connected" of "■ LIMITATIONS ON DIGITAL OUTPUT MODULE CONNECTIONS" in "ProSafe-RS Outline of I/O Modules (for FIO)" (GS 32P06K60-01EN).

*1: Specify option code "/SDV526" to prevent mistakes at the time of false insertion.

		Description
Model	KS1	Signal Cable (40-40 pins)
Suffix Codes	-01	Length: 1 m
	-02	Length: 2 m
	-03	Length: 3 m
	-05	Length: 5 m
	-07	Length: 7 m
	-10	Length: up to 10 m (*1)
	-15	Length: 15 m
	-20	Length: 20 m
	-25	Length: 25 m
	-30	Length: 30 m
	-35	Length: 35 m
	-40	Length: 40 m
	-45	Length: 45 m
	-50	Length: 50 m
Style Code	*B	Style B
Option Codes	/SAI143	Special cable for SAI143 (for ProSafe-RS)
	/SAI533	Special cable for SAI533 (for ProSafe-RS)
	/SAV144	Special cable for SAV144 (for ProSafe-RS)

*1: "Length: up to 10 m" means the customer can specify the cable length that is not exceeding the 10 meters.
For example, 8 m or 9 m can be specified when KS1-10*B is selected.

Note: A mechanism to prevent wrong type I/O module insertion is supported. When you select option code /SAI143, SAI533 and /SAV144, the same model I/O module with /PRP prevention pin of false insertion option can be used. For example, KS1-03/SAI143 can be used only with SAI143 that have /PRP prevention pin of false insertion option.

■ CONFORMITY STANDARDS

Refer to "ProSafe-RS Standards Compliant Models" (GS 32P01B60-01EN).

■ ORDERING INFORMATION

Specify the model, suffix code(s), and option code(s).

■ TRADEMARK ACKNOWLEDGMENT

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