Cable Related

Mitsubishi General-purpose AC Servo MELSERVO-J4/J3/JN Cable

This cable is dedicated for connecting the Mitsubishi General-purpose AC Servo MELSERVO-J4/J3/JN servo amplifier and servo motor.

Features

■Connect cables with a junction. Flexibly support various situations such as separation from machine side devices, such as during transportation or installation, or using long bending life cables in some sections.

■The encoder, power supply and electromagnetic brake cables are manufactured for the MR-J4/J3/JN servo, which are available from Mitsubishi Electric Corp. (1m unit)

* We manufacture cables other than the standard length cables sold by Mitsubishi Electric Corp.

■Cables, with your required length, are delivered in short schedule. (Standard delivery is 7 days)

* Contact us when large quantities are required.

■Cables can be selected from standard, long bending life*1, ultra-long bending*2, or high twisting products*3.

*1 Bending performance 1 million times (measured under prescribed conditions)

*2 Bending performance 10 million times (measured under prescribed conditions)

*3 Twisting performance 2 million times (measured under prescribed conditions)

■Encoder cables longer than 50m can be manufactured. (Cable lengths up to 100m supported.)

■Compatible with UL Wiring Harness Program.

* The Wiring Harness Program is part of the UL Traceability Program, and guarantees UL certification of a processed wire. The UL certification method for harnesses was changed in July 2009. Certification with the Certificate of Materials was eliminated, and instead a label certifying that the cable was manufactured in a UL-registered factory became necessary to ensure UL Certification. Our factory has been certified as a UL-registered factory. A UL label complying with the above program is attached to this product before it is shipped.

Specifications

Item	Part name
Connector	Mitsubishi Electric Corp. recommended part
Wire specifications	Mitsubishi Electric Corp. recommended wire or equivalent wire
Applicable standards (wire section)	Encoder cable (UL AWM compatible) Power, electromagnetic brake cable (UL AWM compatible)

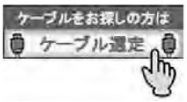
Selecting the cable

●Refer to our website for information on selecting the cable.

●The cable can be selected with the conditions such as motor series, connection method, protection class, etc. (cable length, connector lead direction, bending life).

"Top Page → Guide to Related Products → MELSERVO-J4/J3/JN Cables (AC Servo Related)"

http://www.melsc.co.jp/business/j3cable/bending-cable.html



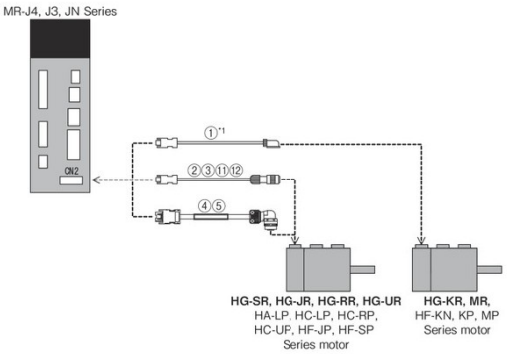
クリック

MITSUBISHI ELECTRIC SYSTEM & SERVICE CO.,LTD.

Wiring Diagrams

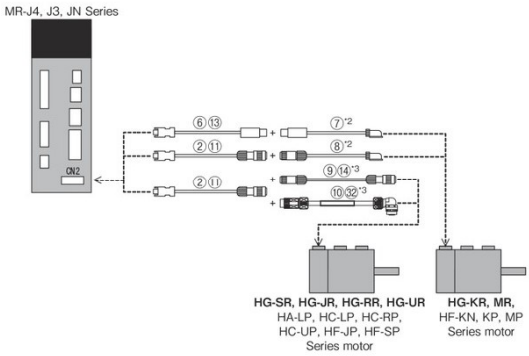
Encoder Cable

①Direct Connection



*1: Please contact us when ① exceeds 10m.

②Relay connection

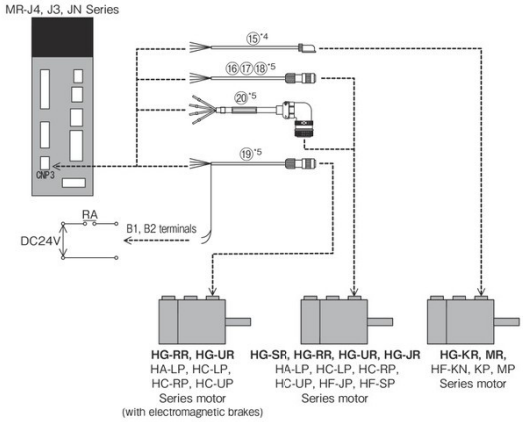


*2: If ⑦ and ⑧ have a cable length between 2 and 5m, the overall cable length for ⑥ and ⑦, and ② and ⑧ must be 40m or less, and the overall cable length for ⑬ and ⑦, and ⑪ and ⑧ must be 80m or less.
If ⑦ and ⑧ have a cable length of 1m, the overall cable length for ⑥ and ⑦, and ② and ⑧ must be 50m or less, and the overall cable length for ⑬and ⑦, and ⑪ and ⑧ must be 100m or less.

*3: The overall cable length for ② and ⑨, and ② and ⑩ must be 40m or less.
The overall cable length for ⑪ and ⑭, and ㉜ and ⑪ must be 90m or less.
Note that ② and ⑭, and ⑨ and ⑪ cannot be combined.

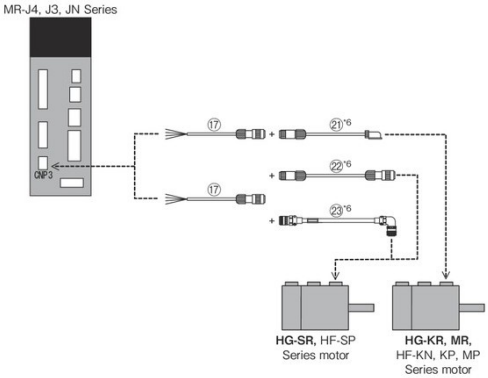
Power Cable

①Direct Connection



*4: Please contact us when ⑮ exceeds 10m.
*5: Please contact us when ⑯, ⑰, ⑱, ⑲ and ⑳ exceed 30m.

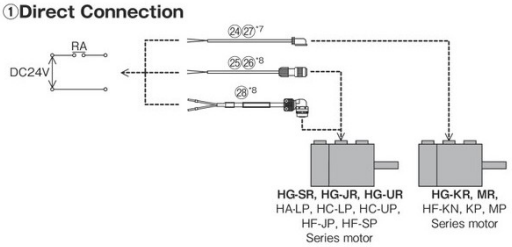
②Relay connection*10



*6: The ⑰ and ㉑, ⑰ and ㉒, and ⑰ and ㉓ combinations and overall cable length will vary according to the motor model.
Refer to "Table of Power Cable Relay Connection Combinations" on page 10 and select the cable.

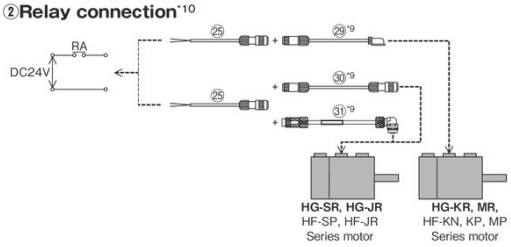
Electromagnetic Brake Cable

①Direct Connection



*7: Please contact us when ㉔ and ㉗ exceed 10m.
*8: Please contact us when ㉕, ㉖ and ㉘ exceed 30m.

②Relay connection*10



*9: The ㉕ and ㉙, ㉕ and ㉚, and ㉕ and ㉛ combinations and overall cable length will vary according to the motor model.
Refer to "Table of Electromagnetic Brake Cable Relay Connection Combinations" on page 10 and select the cable.

*10: Please contact us when connecting any motor not listed above with a junction.

Cable Related

List of Products

Encoder Cable

Standard products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m] (*13)	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-J3ENCBL□M-■-L	1 to 9 (*1)	IP65	①
	HG-KR(*11), MR(*11), HF-KN(*11), HF-KP(*11), HF-MP(*11), **HG-SR,** HF-SP, **HG-JR53(4) to 903(4),** HF-JP53(4) to 903(4), **HG-RR, HG-UR** For HC-LP, HC-RP, HC-UP, HA-LP	–	Straight	SC-J3ENSCBL□M-L	1 to 50	IP67	②
	HF-JP11K1M(4), 15K1M(4)	–	Straight	SC-ENECBL□M-L	1 to 50	IP67	③
			Angle	SC-ENECBL□M-■-L			⑤
	HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4) HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	–	Angle	SC-J3ENSCBL□M-■-L	1 to 50	IP67	④
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Amplifier side	Straight	SC-EKCBL□M-L (*16)	1 to 50	IP20	⑥
		Motor side	Angle	SC-J3JCBL□M-■-L	1 to 5 (*2)	IP20	⑦
				SC-J3JSCBL□M-■-L	1 to 5 (*2)	IP65	⑧
	HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4) HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	Motor side	Straight	SC-J3ENSJCBL□M-L	1 to 39 (*3)	IP67	⑨
			Angle	SC-J3ENSJCBL□M-■-L			⑩

Long bending life products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m] (*13)	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-J3ENCBL□M-■-H	1 to 9 (*1)	IP65	①
	HG-KR(*11), MR(*11), HF-KN(*11), HF-KP(*11), HF-MP(*11), **HG-SR,** HF-SP, **HG-JR53(4) to 903(4),** HF-JP53(4) to 903(4), **HG-RR, HG-UR** HC-LP, HC-RP, HC-UP, HA-LP用	–	Straight	SC-J3ENSCBL□M-H	1 to 49	IP67	②
	HF-JP11K1M(4), 15K1M(4)	–	Straight	SC-ENECBL□M-H	1 to 49	IP67	③
			Angle	SC-ENECBL□M-■-H	1 to 50		⑤
	HG-JR601(4) to 37K1(4) HG-JR701M(4) to 55K1M(4)	–	Straight	SC-ENECBL□M-H-MTH	1 to 50	IP67	③
	HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4) HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	–	Angle	SC-J3ENSCBL□M-■-H	1 to 50	IP67	④
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Amplifier side	Straight	SC-EKCBL□M-H (*16)	1 to 49	IP20	⑥
		Motor side	Angle	SC-J3JCBL□M-■-H	1 to 5 (*2)	IP20	⑦
				SC-J3JSCBL□M-■-H	1 to 5 (*2)	IP65	⑧
	HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4) HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	Motor side	Straight	SC-J3ENSJCBL□M-H	1 to 39 (*3)	IP67	⑨
			Angle	SC-J3ENSJCBL□M-■-H			⑩

Long distance cable*17

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR(*11), MR(*11),** HF-KN(*11), HF-KP(*11), HF-MP(*11), **HG-SR,** HF-SP, **HG-JR53(4) to 903(4),** HF-JP53(4) to 903(4), **HG-RR, HG-UR** HC-LP, HC-RP, HC-UP, HA-LP用	–	Straight	SC-J3ENS4CBL□M-H (*16)	1 to 100 (*17)	IP67	⑪
	HF-JP11K1M(4), 15K1M(4)	–	Straight	SC-ENE4CBL□M-H (*16)	1 to 100	IP67	⑫
			Angle	SC-ENE4CBL□M-■-H			⑤
	HG-JR601(4) to 37K1(4) HG-JR701M(4) to 55K1M(4)	–	Straight	SC-ENE4CBL□M-H-MTH	1 to 85	IP67	
	HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4) HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	–	Angle	SC-J3ENS4CBL□M-■-H	1 to 100 (*17)	IP67	④
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Amplifier side	Straight	SC-EK4CBL□M-H (*16)	1 to 100	IP20	⑬
	HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4) HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	Motor side	Straight	SC-J3ENSJ4CBL□M-H (*16)	1 to 85 (*3)	IP67	⑭
			Angle	SC-J3ENSJ4CBL□M-■-H (*16)			㉜

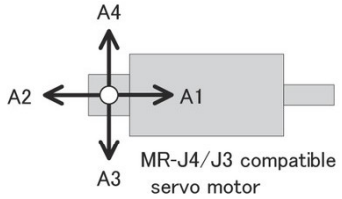
Ultra-long bending products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-J3ENCBL□M-■-S	1 to 10	IP65	–
	HG-KR(*11), MR(*11), HF-KN(*11), KP(*11), MP(*11), **HG-SR, HG-RR, HG-UR Series HG-JR53(4) to 903(4)** HF-SP, HC-LP, HC-RP, HC-UP, HA-LP Series HF-JP53(4) to 903(4)	–	Straight	SC-J3ENSCBL□M-S	1 to 20	IP67	–
		–	Angle	SC-J3ENSCBL□M-■-S	1 to 20	IP67	–
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Amplifier side	Straight	SC-EKCBL□M-S	1 to 20	IP20	–
		Motor side	Angle	SC-J3J2CBL□M-■-S	1 to 3	IP20	–
			Angle	SC-J3JS2CBL□M-■-S		IP65	–

High twisting products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-J3ENCBL□M-■-N	1 to 5	IP65	–
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-J3J2CBL□M-■-N	1 to 3	IP20	–
			Angle	SC-J3JS2CBL□M-■-N		IP65	–

*1 to 10: Same as the notes for the wiring diagrams.
*11: When using for the **HG-KR, HG-MR,** HF-KN, HF-KP or HF-MP Series, use in combination with SC-J3JSCBL□M-■-L or SC-J3JSCBL□M-■-H.
*12: The square □ in the model indicates the cable length. The black square ■ in the model is "A1", "A2", "A3" or "A4". "A1" indicates motor load-side lead, "A2" indicates opposite to load-side lead, "A3" indicates shaft left side lead, and "A4" indicates shaft right side lead.
"H", "L", "S" or "N" at the end of the model indicates the bending life. "H" is a long bending life product, "L" is a standard product, "S" is an ultra-long bending product, and "H" is a high twisting product.
*13: The Mitsubishi Electric Corp. standard length cables are not sold. Standard length: Standard product (0.3, 2, 5, 10, 20, 30m) / long bending life product (2, 5, 10, 20, 30, 40, 50m).
*14: The listed protective structure indicates the dust-proof and waterproof level when joined to the connector section. If the servo amplifier or servo motor's protective structure is different from the listed value, the overall protective structure will depend on the lower level.
*15: Contact us for information on cables for motors not listed above.
*16: The 30m and longer cable is a 4-core cable. The servo amplifier's parameters must be set to use this type of cable. Refer to the Servo Amplifer Technical Documents issued by Mitsubishi Electric Corp. for details.
*17: The long distance cable can be manufactured in 5m units.
*18: Refer to the following drawings for the lead direction of the angle connector. When using the motor load-side lead "A1", the cable could interfere with the motor body or mounting flange.
The HG-KR/MR Series and HF-KN/KP/MP Series is available only with the "A1" or "A2" direction.
*19: The combination and overall cable length vary according tc the motor model. Refer to our website for details. (http://www.melsc.co.jp/business/)



A1 : Motor load-side lead
A2 : Opposite to load-side lead
A3 : Shaft left side lead
A4 : Shaft right side lead

* View from cable insertion direction

Power Cable

Standard products

Connection type	Applicable motor (*15)	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-PWS1CBL□M-■-L	1 to 9 (*4)(*13)	IP65	⑮
				SC-PWS3CBL□M-■-L (with shield)	1 to 10		
	HG-UR72 HC-LP52, 102 HC-UP72	–	Straight	SC-PWC1CBL□M-ML	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC1CBL□M-■-ML	1 to 30		–
	HG-RR103, 153/HG-UR152 HC-LP152/HC-RP103, 153/ HC-UP152	–	Straight	SC-PWC1CBL□M-L	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC1CBL□M-■-L	1 to 30		–
	HG-RR203, HC-RP203	–	Straight	SC-PWC1CBL□M-LL	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC1CBL□M-■-LL	1 to 30		–
	HG-UR202 HC-LP202/HC-UP202	–	Straight	SC-PWC2CBL□M-L	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC2CBL□M-■-L	1 to 30		–
	HG-RR353, 503/HG-UR352, 502 HA-LP502/HC-LP302/ HC-RP353, 503/HC-UP352, 502	–	Straight	SC-PWC2CBL□M-LL	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC2CBL□M-■-LL	1 to 30		–
	HG-SR421, 7024/HG-JR6014, 701M4, 7034, 8014, 9034, HF-SP421, 7024/ HF-JP7034, 9034	–	Straight	SC-PWC3CBL□M-ML	1 to 30	IP67	–
			Angle	SC-PWC3CBL□M-■-ML			
	HG-SR702/HG-JR601, 701M, 703, 11K1M4, 12K14 HA-LP702/HF-SP702/ HF-JP703, 11K1M4	–	Straight	SC-PWC3CBL□M-L	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC3CBL□M-■-L	1 to 30		–
	HG-JR801, 903, 11K1M, 12K1, 15K1M4 HF-JP903, 11K1M, 15K1M4	–	Straight	SC-PWC3CBL□M-LL	1 to 30	IP67	–
			Angle	SC-PWC3CBL□M-■-LL			
	HG-SR51, 52(4), 81, 102(4), HG-JR53(4), 73(4), 103(4), HF-SP51, 52(4), 81, 102(4), HF-JP53(4), 73(4), 103(4)	–	Straight	SC-PWC4CBL□M-ML	1 to 30 (*5)	IP67	⑰
			Angle	SC-PWC4CBL□M-■-ML	1 to 30		⑳
	HG-SR152(4)/HG-JR153(4), 203(4), 3534, HF-SP152(4), HF-JP153(4), 203(4), 3534	–	Straight	SC-PWC4CBL□M-L	1 to 30 (*5)	IP67	⑰
			Angle	SC-PWC4CBL□M-■-L	1 to 30		⑳
	HG-JR5034/HF-JP5034	–	Straight	SC-PWC4CBL□M-LL	1 to 30 (*5)	IP67	⑰
			Angle	SC-PWC4CBL□M-■-LL	1 to 30		⑳
	HG-SR121, 201, 202(4), 3524 HF-SP121, 201, 202(4), 3524	–	Straight	SC-PWC5CBL□M-ML	1 to 30 (*5)	IP67	⑱
			Angle	SC-PWC5CBL□M-■-ML	1 to 30		⑳
	HG-SR301, 352, 5024/HG-JR353, HF-SP301, 352, 5024/ HF-JP353	–	Straight	SC-PWC5CBL□M-L	1 to 30 (*5)	IP67	⑱
			Angle	SC-PWC5CBL□M-■-L	1 to 30		⑳
	HG-SR502/HG-JR503 HF-SP502/HF-JP503	–	Straight	SC-PWC5CBL□M-LL	1 to 30 (*5)	IP67	⑱
			Angle	SC-PWC5CBL□M-■-LL	1 to 30		⑳
	HG-UR72B HC-LP52B, 102B/HC-UP72B	–	Straight	SC-PWBKC1CBL□M-ML	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC1CBL□M-■-ML	1 to 30		–
	HG-RR103B, 153B/HG-UR152B HC-LP152B/HC-RP103B, 153B/ HC-UP152B	–	Straight	SC-PWBKC1CBL□M-L	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC1CBL□M-■-L	1 to 30		–
	HG-RR203B, HC-RP203B	–	Straight	SC-PWBKC1CBL□M-LL	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC1CBL□M-■-LL	1 to 30		–
	HG-RR353B, 503B HC-RP353B, 503B	–	Straight	SC-PWBKC2CBL□M-L	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC2CBL□M-■-L	1 to 30		–
Junction type (*10)	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-PWS1JCBL□M-■-L	(*6)	IP65	㉑
		Amplifier side	Straight	SC-PWS4CBL□M-LL	(*19)	IP20	–
		Motor side	Angle	SC-PWS4JCBL□M-■-L			
		Amplifier side	Straight	SC-PWS5CBL□M-LL		IP65	
		Motor side	Angle	SC-PWS5JCBL□M-■-L			
	HG-SR51, 52, 524, 1024 For HF-SP51, 52, 524, 1024	Motor side	Straight	SC-PWC4JCBL□M-L	(*6)	IP67	㉒
			Angle	SC-PWC4JCBL□M-■-L			㉓
	HG-SR102, 152, 81, 1524 For HF-SP102, 152, 81, 1524	Motor side	Straight	SC-PWC4JCBL□M-LL	(*6)	IP67	㉒
			Angle	SC-PWC4JCBL□M-■-LL			㉓

Long bending life products

Connection type	Applicable motor (*15)	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-PWS1CBL□M-■-H	1 to 9 (*4)(*13)	IP65	⑮
				SC-PWS3CBL□M-■-H (with shield)	1 to 10		
	HG-UR72 HC-LP52, 102 HC-UP72	–	Straight	SC-PWC1CBL□M-MH	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC1CBL□M-■-MH	1 to 30		–
	HG-RR103, 153/HG-UR152 HC-LP152/HC-RP103, 153/ HC-UP152	–	Straight	SC-PWC1CBL□M-H	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC1CBL□M-■-H	1 to 30		–
	HG-RR203, HC-RP203	–	Straight	SC-PWC1CBL□M-LH	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC1CBL□M-■-LH	1 to 30		–
	HG-UR202 HC-LP202/HC-UP202	–	Straight	SC-PWC2CBL□M-H	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC2CBL□M-■-H	1 to 30		–
	HG-RR353, 503/HG-UR352, 502 HA-LP502/HC-LP302/ HC-RP353, 503/HC-UP352, 502	–	Straight	SC-PWC2CBL□M-LH	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC2CBL□M-■-LH	1 to 30		–
	HG-SR421, 7024/HG-JR6014, 701M4, 7034, 8014, 9034, HF-SP421, 7024/ HF-JP7034, 9034	–	Straight	SC-PWC3CBL□M-MH	1 to 30	IP67	–
			Angle	SC-PWC3CBL□M-■-MH			
	HG-SR702/HG-JR601, 701M, 703, 11K1M4, 12K14 HA-LP702/HF-SP702/ HF-JP703, 11K1M4	–	Straight	SC-PWC3CBL□M-H	1 to 30 (*5)	IP67	⑯
			Angle	SC-PWC3CBL□M-■-H	1 to 30		–
	HG-JR801, 903, 11K1M, 12K1, 15K1M4 HF-JP903, 11K1M, 15K1M4	–	Straight	SC-PWC3CBL□M-LH	1 to 30	IP67	–
			Angle	SC-PWC3CBL□M-■-LH			
	HG-SR51, 52(4), 81, 102(4), HG-JR53(4), 73(4), 103(4), HF-SP51, 52(4), 81, 102(4), HF-JP53(4), 73(4), 103(4)	–	Straight	SC-PWC4CBL□M-MH	1 to 30 (*5)	IP67	⑰
			Angle	SC-PWC4CBL□M-■-MH	1 to 30		⑳
	HG-SR152(4)/HG-JR153(4), 203(4), 3534, HF-SP152(4), HF-JP153(4), 203(4), 3534	–	Straight	SC-PWC4CBL□M-H	1 to 30 (*5)	IP67	⑰
			Angle	SC-PWC4CBL□M-■-H	1 to 30		⑳
	HG-JR5034/HF-JP5034	–	Straight	SC-PWC4CBL□M-LH	1 to 30 (*5)	IP67	⑰
			Angle	SC-PWC4CBL□M-■-LH	1 to 30		⑳
	HG-SR121, 201, 202(4), 3524 HF-SP121, 201, 202(4), 3524	–	Straight	SC-PWC5CBL□M-MH	1 to 30 (*5)	IP67	⑱
			Angle	SC-PWC5CBL□M-■-MH	1 to 30		⑳
	HG-SR301, 352, 5024/HG-JR353, HF-SP301, 352, 5024/ HF-JP353	–	Straight	SC-PWC5CBL□M-H	1 to 30 (*5)	IP67	⑱
			Angle	SC-PWC5CBL□M-■-H	1 to 30		⑳
	HG-SR502/HG-JR503 HF-SP502/HF-JP503	–	Straight	SC-PWC5CBL□M-LH	1 to 30 (*5)	IP67	⑱
			Angle	SC-PWC5CBL□M-■-LH	1 to 30		⑳
	HG-UR72B HC-LP52B, 102B/HC-UP72B	–	Straight	SC-PWBKC1CBL□M-MH	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC1CBL□M-■-MH	1 to 30		–
	HG-RR103B, 153B/HG-UR152B HC-LP152B/HC-RP103B, 153B/ HC-UP152B	–	Straight	SC-PWBKC1CBL□M-H	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC1CBL□M-■-H	1 to 30		–
	HG-RR203B, HC-RP203B	–	Straight	SC-PWBKC1CBL□M-LH	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC1CBL□M-■-LH	1 to 30		–
	HG-RR353B, 503B HC-RP353B, 503B	–	Straight	SC-PWBKC2CBL□M-H	1 to 30 (*5)	IP67	⑲
			Angle	SC-PWBKC2CBL□M-■-H	1 to 30		–
Junction type (*10)	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-PWS1JCBL□M-■-H	(*6)	IP65	㉑
		Amplifier side	Straight	SC-PWS4CBL□M-LH	(*19)	IP20	–
		Motor side	Angle	SC-PWS4JCBL□M-■-H			
		Amplifier side	Straight	SC-PWS5CBL□M-LH		IP65	
		Motor side	Angle	SC-PWS5JCBL□M-■-H			
	HG-SR51, 52, 524, 1024 For HF-SP51, 52, 524, 1024	Motor side	Straight	SC-PWC4JCBL□M-H	(*6)	IP67	㉒
			Angle	SC-PWC4JCBL□M-■-H			㉓
	HG-SR102, 152, 81, 1524 For HF-SP102, 152, 81, 1524	Motor side	Straight	SC-PWC4JCBL□M-LH	(*6)	IP67	㉒
			Angle	SC-PWC4JCBL□M-■-LH			㉓

Cable Related

Ultra-long bending products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-PWS1CBL□M-■-S	1 to 10	IP65	–
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-PWS4JCBL□M-■-S	(*6)	IP20	–
				SC-PWS5JCBL□M-■-S		IP65	

Electromagnetic Brake Cable

Standard products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-BKS1CBL□M-■-L	1 to 9 (*7) (*13)	IP65	㉔
				SC-BKS3CBL□M-■-L (with shield)	1 to 10	IP67	㉗
	HG-SR Series **HG-JR53(4)B to 903(4)B** HF-SP Series HF-JP53(4)B to 903(4)B		Straight	SC-BKC1CBL□M-L	1 to 30 (*8)	IP67	㉕
			Angle	SC-BKC1CBL□M-■-L	1 to 30		㉘
	HG-UR202B, 352B, 502B **HG-JR601(4)B to 12K1(4)B, 701M(4)B to 15K1M(4)B** For HF-JP11K1M(4)B, 15K1M(4)B, HC-LP202B, 302B, HC-UP202B to 502B, HA-LP601(4)B to 12K1(4)B, 701M(4)B to 15K1M(4)B, 11K2(4)B to 22K2(4)B		Straight	SC-BKCC3L□M-L	1 to 30 (*8)	IP67	㉖
Junction type (*10)	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-BKS1CBL□M-■-L	(*9)	IP65	㉙
		Amplifier side	Straight	SC-BKS4CBL□M-LL		IP20	–
		Motor side	Angle	SC-BKS4CBL□M-■-L			
	HG-SR Series HF-SP Series	Motor side	Straight	SC-BKC1CBL□M-L	(*9)	IP67	㉚
			Angle	SC-BKC1CBL□M-■-L			㉛

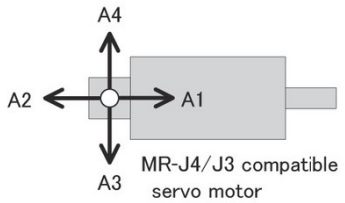
Long bending life products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-BKS1CBL□M-■-H	1 to 9 (*7) (*13)	IP65	㉔
			Angle	SC-BKS3CBL□M-■-H (with shield)	1 to 10	IP67	㉗
	HG-SR Series **HG-JR53(4)B to 903(4)B** HF-SP Series HF-JP53(4)B to 903(4)B		Straight	SC-BKC1CBL□M-H	1 to 30 (*8)	IP67	㉕
			Angle	SC-BKC1CBL□M-■-H	1 to 30		㉘
	HG-UR202B, 352B, 502B **HG-JR601(4)B to 12K1(4)B, 701M(4)B to 15K1M(4)B** For HF-JP11K1M(4)B, 15K1M(4)B, HC-LP202B, 302B, HC-UP202B to 502B, HA-LP601(4)B to 12K1(4)B, 701M(4)B to 15K1M(4)B, 11K2(4)B to 22K2(4)B		Straight	SC-BKCCBL□M-H	1 to 30 (*8)	IP67	㉖
Junction type (*10)	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-BKS1JCBL□M-■-H	(*9)	IP65	㉙
		Amplifier side	Straight	SC-BKS4CBL□M-LH		IP20	–
		Motor side	Angle	SC-BKS4JCBL□M-■-H			
	HG-SR Series HF-SP Series	Motor side	Straight	SC-BKC1JCBL□M-H	(*9)	IP67	㉚
			Angle	SC-BKC1JCBL□M-■-H			㉛

Ultra-long bending products

Connection type	Applicable motor	Connection place	Connector type (*18)	Model (*12)	Cable length [m]	Protective structure (*14)	Wiring diagram
Direct connection type	**HG-KR/MR Series** HF-KN/KP/MP Series	–	Angle	SC-BKS1CBL□M-■-S	1 to 10	IP65	–
Junction type	**HG-KR/MR Series** HF-KN/KP/MP Series	Motor side	Angle	SC-BKS1JCBL□M-■-S	(*9)	IP65	–
				SC-BKS4JCBL□M-■-S		IP20	

*1 to 10: Same as the notes for the wiring diagrams.
*11: When using for the **HG-KR, HG-MR,** HF-KN, HF-KP or HF-MP Series, use in combination with SC-J3JSCBL□M-■-L or SC-J3JSCBL□M-■-H.
*12: The square □ in the model indicates the cable length. The black square ■ in the model is "A1", "A2", "A3" or "A4". "A1" indicates motor load-side lead, "A2" indicates opposite to load-side lead, "A3" indicates shaft left side lead, and "A4" indicates shaft right side lead.
"H", "L", "S" or "N" at the end of the model indicates the bending life. "H" is a long bending life product, "L" is a standard product, "S" is an ultra-long bending product, and "H" is a high twisting product.
*13: The Mitsubishi Electric Corp. standard length cables are not sold. Standard length: Standard product (0.3, 2, 5, 10, 20, 30m) / long bending life product (2, 5, 10, 20, 30, 40, 50m).
*14: The listed protective structure indicates the dust-proof and waterproof level when joined to the connector section. If the servo amplifier or servo motor's protective structure is different from the listed value, the overall protective structure will depend on the lower level.
*15: Contact us for information on cables for motors not listed above.
*16: A cable longer than 30m is a 4-core cable. The servo amplifier's parameters must be set to use this type of cable. Refer to the Servo Amplifier Technical Documents issued by Mitsubishi Electric Corp. for details.
*17: The long distance cable can be manufactured in 5m units.
*18: Refer to the following drawings for the lead direction of the angle connector. When using the motor load-side lead "A1", the cable could interfere with the motor body or mounting flange.
The HG-KR/MR Series and HF-KN/KP/MP Series is available only with the "A1" or "A2" direction.



A1 : Motor load-side lead
A2 : Opposite to load-side lead
A3 : Shaft left side lead
A4 : Shaft right side lead

*View from cable insertion direction

Model System

1.Encoder Cable

SC - J3ENS CBL □ M - ■ - L

Encoder Cable	
Direct connection type	J3EN, J3ENS, ENE, J3ENS4, ENE4
Junction type	EK, J3J, J3JS, J3ENSJ, J3ENSJ4, EK4, J3J2, J3JS2

Symbol	Cable length
1	1m
10	10m

Symbol	Bending class
L	Standard product (for fixed sections)
H	Long bending life product (for moving sections)
S	Ultra-long bending life product
N	High twisting product

Symbol	Lead direction class
A1	Motor load-side lead
A2	Opposite to load-side lead
A3	Shaft left side lead
A4	Shaft right side lead
None	Straight type

2.Power Cable

SC - PW C4 J CBL □ M - ■ - L L

Symbol	Application class
PW	Power cable
PWBK	Power cable with electromagnetic brakes

Symbol	Mitsubishi Electric connector set / applicable motor
C1	MR-PWCNS1
C2	MR-PWCNS2
C3	MR-PWCNS3
C4	MR-PWCNS4
C5	MR-PWCNS5
S1	For HG-KR/MR, HF-KN/KP/MP motor
S3	For HG-KR/MR, HF-KN/KP/MP motor, with shield
S4	For HG-KR/MR, HF-KN/KP/MP motor, Protection class: IP20
S5	For HG-KR/MR, HF-KN/KP/MP motor, Protection class: IP65

Symbol	Connection class
None	Direction connection type
J	Junction type

Symbol	Cable length
1	1m
10	10m

Symbol	Bending class
L	Standard product (for fixed sections)
H	Long bending life product (for moving sections)
S	Ultra-long bending life product

Symbol	Wire class
M	Thin wire
L	Thick wire
None	Standard

Symbol	Lead direction class
A1	Motor load-side lead
A2	Opposite to load-side lead
A3	Shaft left side lead
A4	Shaft right side lead
None	Straight type

3.Electromagnetic Brake Cable

SC - BK S1 J CBL □ M - ■ - L

Symbol	Applicable class
BK	Electromagnetic brake

Symbol	Mitsubishi Electric connector set / applicable motor
C	MR-BKCN
C1	MR-BKCNS1
S1	For HG-KR/MR, HF-KN/KP/MP motor
S3	For HG-KR/MR, HF-KN/KP/MP motor, with shield
S4	For HG-KR/MR, HF-KN/KP/MP motor, Protection class: IP20

Symbol	Connection class
None	Direction connection type
J	Junction type

Symbol	Cable length
1	1m
10	10m

Symbol	Bending class
L	Standard product (for fixed sections)
H	Long bending life product (for moving sections)
S	Ultra-long bending life product

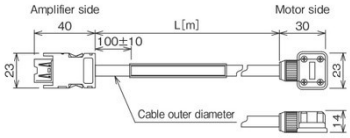
Symbol	Lead direction class
A1	Motor load-side lead
A2	Opposite to load-side lead
A3	Shaft left side lead
A4	Shaft right side lead
None	Straight type

Cable Related

Dimensions

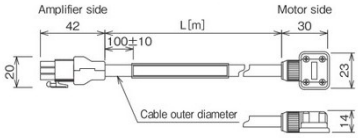
Encoder Cable*1

【SC-J3ENCBL□M-■-○】



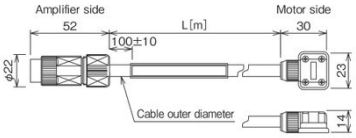
Model	Bending class	Cable outer diameter[mm]
SC-J3ENCBL□M-■-○	Standard product	φ7.1
	Long bending life product	
	Ultra-long bending life product	
	High twisting product	φ7.0

【SC-J3JCBL□M-■-○】
【SC-J3J2CBL□M-■-○】



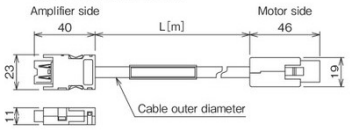
Model	Bending class	Cable outer diameter[mm]
SC-J3JCBL□M-■-○	Standard product	φ7.5
	Long bending life product	φ7.0
SC-J3J2CBL□M-■-○	Ultra-long bending life product	φ7.1
	High twisting product	φ7.0

【SC-J3JSCBL□M-■-○】
【SC-J3JS2CBL□M-■-○】



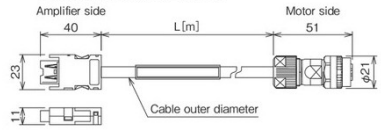
Model	Bending class	Cable outer diameter[mm]
SC-J3JSCBL□M-■-○	Standard product	φ7.5
	Long bending life product	φ7.0
SC-J3JS2CBL□M-■-○	Ultra-long bending life product	φ7.1
	High twisting product	φ7.0

【SC-EKCBL□M-○】
【SC-EK4CBL□M-H】



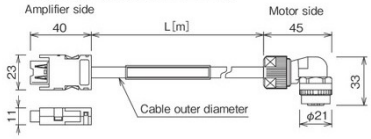
Model	Bending class	Cable length [m]	Cable outer diameter[mm]
SC-EKCBL□M-○	Standard product	1 to 10	φ7.1
		11 to 50	φ8.2
	Long bending life product	1 to 10	φ7.1
		11 to 29	φ8.0
		30 to 50	φ8.3
	Ultra-long bending life product	1 to 10	φ7.1
		11 to 20	φ8.5
SC-EK4CBL□M-H	High twisting life product	55 to 100	φ8.9

【SC-J3ENSCBL□M-○】
【SC-J3ENS4CBL□M-H】



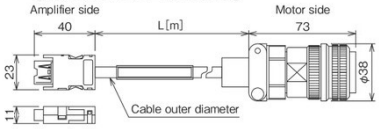
Model	Bending class	Cable length [m]	Cable outer diameter[mm]
SC-J3ENSCBL□M-○	Standard product	1 to 10	φ7.1
		11 to 50	φ8.2
	Long bending life product	1 to 10	φ7.1
		11 to 50	φ8.0
	Ultra-long bending life product	1 to 10	φ7.1
		11 to 20	φ8.5
SC-J3ENS4CBL□M-H	High twisting life product	55 to 100	φ8.9

【SC-J3ENSCBL□M-■-○】*2
【SC-J3ENS4CBL□M-■-H】



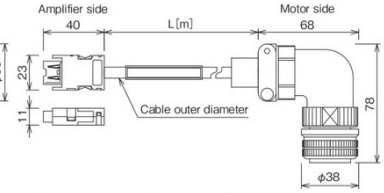
Model	Bending class	Cable length [m]	Cable outer diameter[mm]
SC-J3ENSCBL□M-■-○	Standard product	1 to 10	φ7.1
		11 to 50	φ8.2
	Long bending life product	1 to 10	φ7.1
		11 to 50	φ8.0
	Ultra-long bending life product	1 to 10	φ7.1
		11 to 20	φ8.5
SC-J3ENS4CBL□M-■-H	High twisting life product	55 to 100	φ8.9

【SC-ENECBL□M-○】
【SC-ENE4CBL□M-H】
【SC-ENECBL□M-H-MTH】
【SC-ENE4CBL□M-H-MTH】



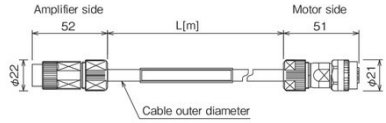
Model	Bending class	Cable length [m]	Cable outer diameter[mm]
SC-ENECBL□M-○ SC-ENECBL□M-H-MTH	Standard product	1 to 10	φ7.1
		11 to 50	φ8.2
	Long bending life product	1 to 10	φ6.9
		11 to 29	φ8.0
		30 to 50	φ8.3
SC-ENE4CBL□M-H SC-ENE4CBL□M-H-MTH	Long bending life product	55 to 100	φ8.9

【SC-ENECBL□M-■-○】*3
【SC-ENE4CBL□M-■-H】



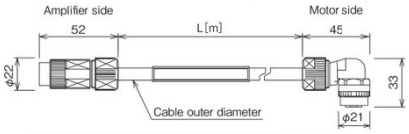
Model	Bending class	Cable length [m]	Cable outer diameter[mm]
SC-ENECBL□M-■-○	Standard product	1 to 10	φ7.1
		11 to 50	φ8.2
	Long bending life product	1 to 10	φ6.9
		11 to 29	φ8.0
		30 to 50	φ8.3
SC-ENE4CBL□M-■-H	Long bending life product	55 to 100	φ8.9

【SC-J3ENSJCBL□M-○】
【SC-J3ENSJ4CBL□M-H】



Model	Bending class	Cable outer diameter[mm]
SC-J3ENSJCBL□M-○	Standard product	φ8.2
	Long bending life product	φ8.3
SC-J3ENSJ4CBL□M-H	Long bending life product	φ8.9

【SC-J3ENSJCBL□M-■-○】*2
【SC-J3ENSJ4CBL□M-■-H】



Model	Bending class	Cable outer diameter[mm]
SC-J3ENSJCBL□M-■-○	Standard product	φ8.2
	Long bending life product	φ8.3
SC-J3ENSJ4CBL□M-■-H	Long bending life product	φ8.9

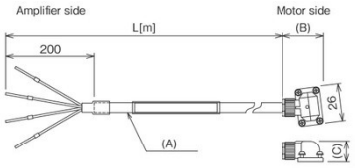
*1: The square □ in the model indicates the cable length. The black square ■ in the model is "A1", "A2", "A3" or "A4". "A1" indicates motor load-side lead.
"A2" indicates opposite to load-side lead, "A3" indicates shaft left side lead, and "A4" indicates shaft right side lead.
The circle ○ in the model name is "MH", "H", "LH", "ML", "L", "LL", "S" or "N".

*2: The motor shape may prevent the cable from being attached in some lead directions. Contact us for more information.

*3: "A1" motor load-side lead cannot be attached.

Power Cable*1

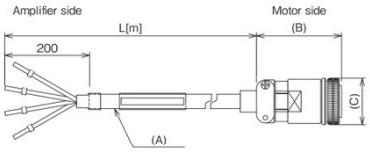
【SC-PWS1CBL□M-■-○】
【SC-PWS3CBL□M-■-○】



Unit (mm)

Model	Bending class	Cable outer diameter (A)	Connector Length (B)	Connector Outer diameter (C)
SC-PWS1CBL□M-■-○	Standard product	ϕ6.2	27	14
	Long bending life product	ϕ6.0		
	Ultra-long bending life product	ϕ6.3		
SC-PWS3CBL□M-■-○	Standard product	ϕ6.8	33	21
	Long bending life product	ϕ7.5		

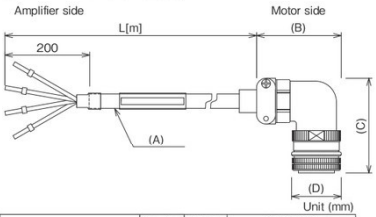
【SC-PWC1CBL□M-○】【SC-PWC2CBL□M-○】
【SC-PWC3CBL□M-○】【SC-PWC4CBL□M-○】
【SC-PWC5CBL□M-○】



Unit (mm)

Model	Bending class	Cable outer diameter (A)	Connector Length (B)	Connector Outer diameter (C)
SC-PWC1CBL□M-ML	Standard product	ϕ9.9	77	ϕ41
SC-PWC1CBL□M-L		ϕ12.2		
SC-PWC1CBL□M-LL		ϕ13.6		
SC-PWC1CBL□M-MH	Long bending life product	ϕ8.5		
SC-PWC1CBL□M-H		ϕ8.6		
SC-PWC1CBL□M-LH		ϕ10.9		
SC-PWC2CBL□M-L	Standard product	ϕ13.6	87	ϕ44
SC-PWC2CBL□M-LL		ϕ13.7		
SC-PWC2CBL□M-H	Long bending life product	ϕ10.9		
SC-PWC2CBL□M-LH		ϕ14.0		
SC-PWC3CBL□M-L	Standard product	ϕ21.3	99	ϕ57
SC-PWC3CBL□M-LL		ϕ25.6		
SC-PWC3CBL□M-H	Long bending life product	ϕ22.1		
SC-PWC3CBL□M-LH		ϕ25.9		
SC-PWC4CBL□M-ML	Standard product	ϕ9.9	73	ϕ35
SC-PWC4CBL□M-L		ϕ12.2		
SC-PWC4CBL□M-LL		ϕ13.6		
SC-PWC4CBL□M-MH	Long bending life product	ϕ8.5		
SC-PWC4CBL□M-H		ϕ8.6		
SC-PWC4CBL□M-LH		ϕ10.9		
SC-PWC5CBL□M-ML	Standard product	ϕ12.2	77	ϕ41
SC-PWC5CBL□M-L		ϕ13.6		
SC-PWC5CBL□M-LL		ϕ13.7		
SC-PWC5CBL□M-MH	Long bending life product	ϕ8.6		
SC-PWC5CBL□M-H		ϕ10.9		
SC-PWC5CBL□M-LH		ϕ14.0		

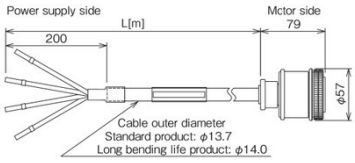
【SC-PWC1CBL□M-■-○】【SC-PWC2CBL□M-■-○】*2
【SC-PWC3CBL□M-■-○】【SC-PWC4CBL□M-■-○】
【SC-PWC5CBL□M-■-○】



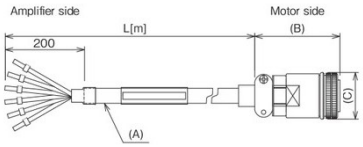
Unit (mm)

Model	Bending class	Cable outer diameter (A)	Connector Length (B)	Connector Length (C)	Connector Outer diameter (D)
SC-PWC1CBL□M-■-ML	Standard product	ϕ9.9	64	78	ϕ41
SC-PWC1CBL□M-■-L		ϕ12.2			
SC-PWC1CBL□M-■-LL		ϕ13.6			
SC-PWC1CBL□M-■-MH	Long bending life product	ϕ8.5			
SC-PWC1CBL□M-■-H		ϕ8.6			
SC-PWC1CBL□M-■-LH		ϕ10.9			
SC-PWC2CBL□M-■-L	Standard product	ϕ13.6	80	93	ϕ44
SC-PWC2CBL□M-■-LL		ϕ13.7			
SC-PWC2CBL□M-■-H	Long bending life product	ϕ10.9			
SC-PWC2CBL□M-■-LH		ϕ14.0			
SC-PWC3CBL□M-■-L	Standard product	ϕ21.3	89	95	ϕ57
SC-PWC3CBL□M-■-LL		ϕ25.6			
SC-PWC3CBL□M-■-H	Long bending life product	ϕ22.1			
SC-PWC3CBL□M-■-LH		ϕ25.9			
SC-PWC4CBL□M-■-ML	Standard product	ϕ9.9	57	70	ϕ35
SC-PWC4CBL□M-■-L		ϕ12.2			
SC-PWC4CBL□M-■-LL		ϕ13.6			
SC-PWC4CBL□M-■-MH	Long bending life product	ϕ8.5			
SC-PWC4CBL□M-■-H		ϕ8.6			
SC-PWC4CBL□M-■-LH		ϕ10.9			
SC-PWC5CBL□M-■-ML	Standard product	ϕ12.2	68	78	ϕ41
SC-PWC5CBL□M-■-L		ϕ13.6			
SC-PWC5CBL□M-■-LL		ϕ13.7			
SC-PWC5CBL□M-■-MH	Long bending life product	ϕ8.6			
SC-PWC5CBL□M-■-H		ϕ10.9			
SC-PWC5CBL□M-■-LH		ϕ14.0			

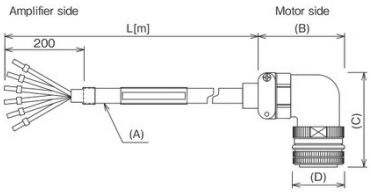
【SC-PWC3CBL□M-ML】
【SC-PWC3CBL□M-MH】



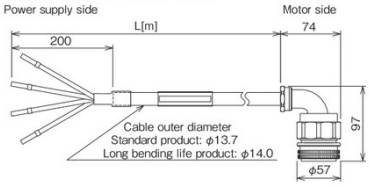
【SC-PWBKC1CBL□M-○】
【SC-PWBKC2CBL□M-○】



【SC-PWBKC1CBL□M-■-○】
【SC-PWBKC2CBL□M-■-○】*2



【SC-PWC3CBL□M-■-ML】
【SC-PWC3CBL□M-■-MH】



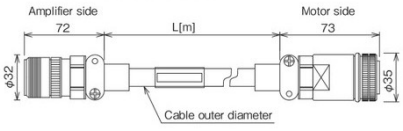
Unit (mm)

Model	Bending class	Cable outer diameter (A)	Connector Length (B)	Connector Outer diameter (C)
SC-PWBKC1CBL□M-ML	Standard product	ϕ11.8	77	ϕ41
SC-PWBKC1CBL□M-L		ϕ13.0		
SC-PWBKC1CBL□M-LL		ϕ14.6		
SC-PWBKC1CBL□M-MH	Long bending life product	ϕ10.0		
SC-PWBKC1CBL□M-H		ϕ10.7		
SC-PWBKC1CBL□M-LH		ϕ12.7		
SC-PWBKC2CBL□M-L	Standard product	ϕ16.7	87	ϕ44
SC-PWBKC2CBL□M-H	Long bending life product	ϕ17.0		

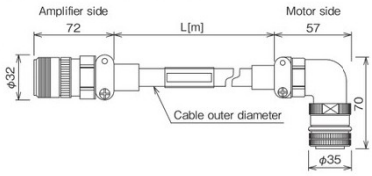
Unit (mm)

Model	Bending class	Cable outer diameter (A)	Connector Length (B)	Connector Length (C)	Connector Outer diameter (D)
SC-PWBKC1CBL□M-■-ML	Standard product	ϕ11.8	64	78	ϕ41
SC-PWBKC1CBL□M-■-L		ϕ13.0			
SC-PWBKC1CBL□M-■-LL		ϕ14.6			
SC-PWBKC1CBL□M-■-MH	Long bending life product	ϕ10.0			
SC-PWBKC1CBL□M-■-H		ϕ10.7			
SC-PWBKC1CBL□M-■-LH		ϕ12.7			
SC-PWBKC2CBL□M-■-L	Standard product	ϕ16.7	80	93	ϕ44
SC-PWBKC2CBL□M-■-H	Long bending life product	ϕ17.0			

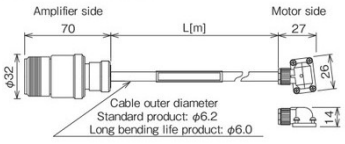
【SC-PWC4JCBL□M-○】



【SC-PWC4JCBL□M-■-○】*2



【SC-PWS1JCBL□M-■-○】

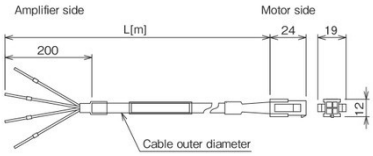


Model	Bending class	Cable outer diameter[mm]
SC-PWC4JCBL□M-L	Standard product	ϕ12.2
SC-PWC4JCBL□M-LL		ϕ13.6
SC-PWC4JCBL□M-H	Long bending life product	ϕ8.6
SC-PWC4JCBL□M-LH		ϕ10.9

Model	Bending class	Cable outer diameter[mm]
SC-PWC4JCBL□M-■-L	Standard product	ϕ12.2
SC-PWC4JCBL□M-■-LL		ϕ13.6
SC-PWC4JCBL□M-■-H	Long bending life product	ϕ8.6
SC-PWC4JCBL□M-■-LH		ϕ10.9

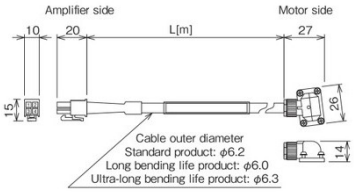
Cable Related

【SC-PWS4CBL□M-○】

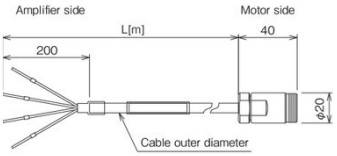


Model	Bending class	Cable outer diameter [mm]
SC-PWS4CBL□M-LL	Standard product	ϕ9.9
SC-PWS4CBL□M-LH	Long bending life product	ϕ8.3

【SC-PWS4JCBL□M-■-○】

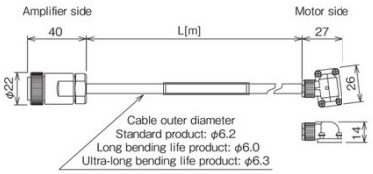


【SC-PWS5CBL□M-○】



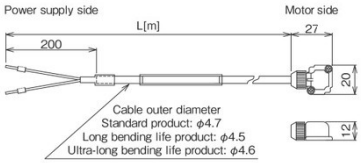
Model	Bending class	Cable outer diameter [mm]
SC-PWS5CBL□M-LL	Standard product	ϕ9.9
SC-PWS5CBL□M-LH	Long bending life product	ϕ8.3

【SC-PWS5JCBL□M-■-○】

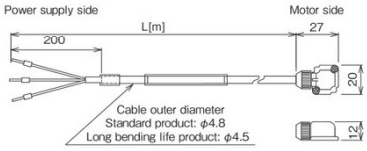


Electromagnetic Brake Cable*1

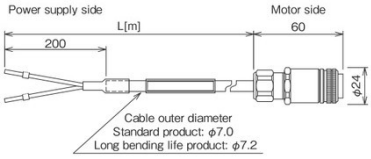
【SC-BKS1CBL□M-■-○】



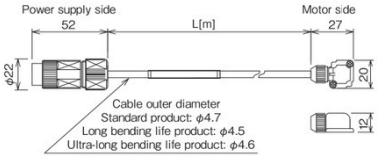
【SC-BKS3CBL□M-■-○】



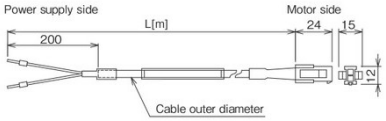
【SC-BKCCBL□M-○】



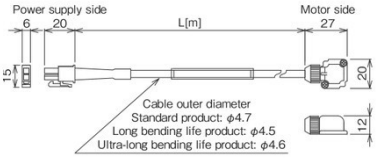
【SC-BKS1JCBL□M-■-○】



【SC-BKS4CBL□M-○】

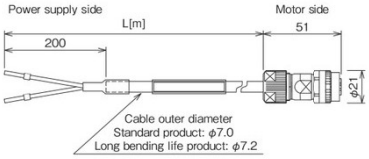


【SC-BKS4JCBL□M-■-○】

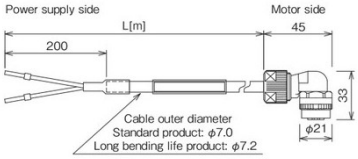


Model	Bending class	Cable outer diameter [mm]
SC-BKS4CBL□M-LL	Standard product	ϕ7.0
SC-BKS4CBL□M-LH	Long bending life product	ϕ7.2

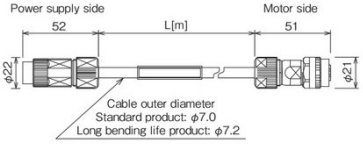
【SC-BKC1CBL□M-○】



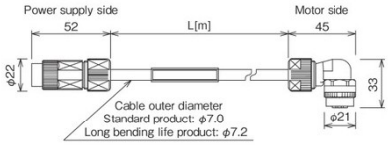
【SC-BKC1CBL□M-■-○】*2



【SC-BKC1JCBL□M-○】



【SC-BKC1JCBL□M-■-○】*2



*1: The square □ in the model indicates the cable length. The black square ■ in the model is "A1", "A2", "A3" or "A4". "A1" indicates motor load-side lead.
"A2" indicates opposite to load-side lead, "A3" indicates shaft left side lead, and "A4" indicates shaft right side lead.
The circle ○ in the model name is "MH", "H", "LH", "ML", "L", "LL", or "S".

*2: The motor shape may prevent the cable from being attached in some lead directions. Contact us for more information.

Table of Relay Connection Combinations

1.Table of Power Cable Relay Connection Combinations*1

When connecting the power cables in junction, the cable model will differ according to the motor model. Refer to the following table and select the cable model.
When making a selection, make sure that the overall cable length is within the overall cable length listed below.

Motor model	Combination cable model				Overall cable length
	Amplifier side		Motor side		
HG-SR51, 52, 524, 1024 HF-SP51, 52, 524, 1024	SC-PWC4CBL□M-ML	(*2)	SC-PWC4JCBL□M-H		50m
			SC-PWC4JCBL□M-■-H		
			SC-PWC4JCBL□M-L		
			SC-PWC4JCBL□M-■-L		
	SC-PWC4CBL□M-MH		SC-PWC4JCBL□M-H		
			SC-PWC4JCBL□M-■-H		
			SC-PWC4JCBL□M-L		
			SC-PWC4JCBL□M-■-L		
HG-SR81, 1524 HF-SP81, 1524	SC-PWC4CBL□M-ML	(*3)	SC-PWC4JCBL□M-LH		50m
			SC-PWC4JCBL□M-■-LH		
			SC-PWC4JCBL□M-LL		
			SC-PWC4JCBL□M-■-LL		
	SC-PWC4CBL□M-MH		SC-PWC4JCBL□M-LH		
			SC-PWC4JCBL□M-■-LH		
			SC-PWC4JCBL□M-LL		
			SC-PWC4JCBL□M-■-LL		
HG-SR102, HF-SP102	SC-PWC4CBL□M-ML	(*4)	SC-PWC4JCBL□M-LH		50m
			SC-PWC4JCBL□M-■-LH		
			SC-PWC4JCBL□M-LL		
			SC-PWC4JCBL□M-■-LL		
	SC-PWC4CBL□M-MH		SC-PWC4JCBL□M-LH		
			SC-PWC4JCBL□M-■-LH		
			SC-PWC4JCBL□M-LL		
			SC-PWC4JCBL□M-■-LL		
HG-SR152, HF-SP152	SC-PWC4CBL□M-L		SC-PWC4JCBL□M-LH		45m
			SC-PWC4JCBL□M-■-LH		
			SC-PWC4JCBL□M-LL		
			SC-PWC4JCBL□M-■-LL		
	SC-PWC4CBL□M-H		SC-PWC4JCBL□M-LH		40m
			SC-PWC4JCBL□M-■-LH		
			SC-PWC4JCBL□M-LL		45m
			SC-PWC4JCBL□M-■-LL		
HG-KR/MR053, 13, 23, 43, HF-KN/KP/MP053, 13, 23, 43	SC-PWC4CBL□M-ML		SC-PWS1JCBL□M-■-H	(*5)	30m
			SC-PWS1JCBL□M-■-L		
	SC-PWC4CBL□M-MH		SC-PWS1JCBL□M-■-H		
			SC-PWS1JCBL□M-■-L		
HG-KR73, HF-KP73	SC-PWC4CBL□M-ML		SC-PWS1JCBL□M-■-H		25m
			SC-PWS1JCBL□M-■-L		30m
	SC-PWC4CBL□M-MH		SC-PWS1JCBL□M-■-H		25m
			SC-PWS1JCBL□M-■-L		
HG-MR73, HF-MP73	SC-PWC4CBL□M-ML		SC-PWS1JCBL□M-■-H		25m
			SC-PWS1JCBL□M-■-L		
	SC-PWC4CBL□M-MH		SC-PWS1JCBL□M-■-H		20m
			SC-PWS1JCBL□M-■-L		25m

*1:Contact us for combinations and overall cable lengths not listed above.
*2:When using a junction, the cable length on the amplifier side must be 30m or less.
*3:When using a junction, the cable length on the amplifier side must be 20m or less.
*4:When using a junction, the cable length on the amplifier side must be 10m or less.
*5:When using a junction, the cable length on the motor side must be 5m or less.

2.Table of Electromagnetic Brake Cable Relay Connection Combinations*1

When connecting the electromagnetic brake cables in junction, the cable model will differ according to the motor model. Refer to the following table and select the cable model.
When making a selection, make sure that the overall cable length is within the overall cable length listed below.

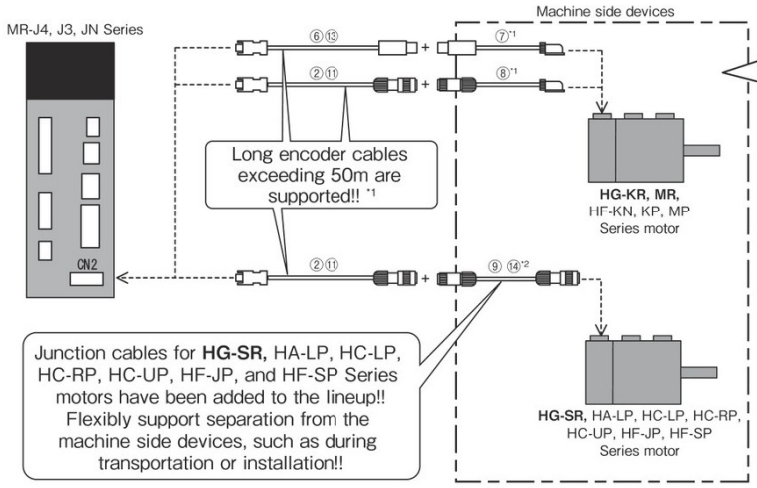
Motor model	Combination cable model				Overall cable length
	Amplifier side		Motor side		
HG-KR/MR Series, HF-KN/KP/MP Series	SC-BKC1CBL□M-L	(*2)	SC-BKS1JCBL□M-■-H	(*3)	40m
			SC-BKS1JCBL□M-■-L		
			SC-BKS1JCBL□M-■-S		
	SC-BKC1CBL□M-H		SC-BKS1JCBL□M-■-H		
			SC-BKS1JCBL□M-■-L		
			SC-BKS1JCBL□M-■-S		
HG-SR Series HG-JR Series HF-SP Series HF-JP Series	SC-BKC1CBL□M-L		SC-BKC1JCBL□M-H		50m
			SC-BKC1JCBL□M-■-H		
			SC-BKC1JCBL□M-L		
			SC-BKC1JCBL□M-■-L		
	SC-BKC1CBL□M-H		SC-BKC1JCBL□M-H		
			SC-BKC1JCBL□M-■-H		
			SC-BKC1JCBL□M-L		
			SC-BKC1JCBL□M-■-L		

*1:Contact us for combinations and overall cable lengths not listed above.
*2:When using a junction, the cable length on the amplifier side must be 30m or less.
*3:When using a junction, the cable length on the motor side must be 10m or less.

Cable Related

Example of Application

Encoder Cable

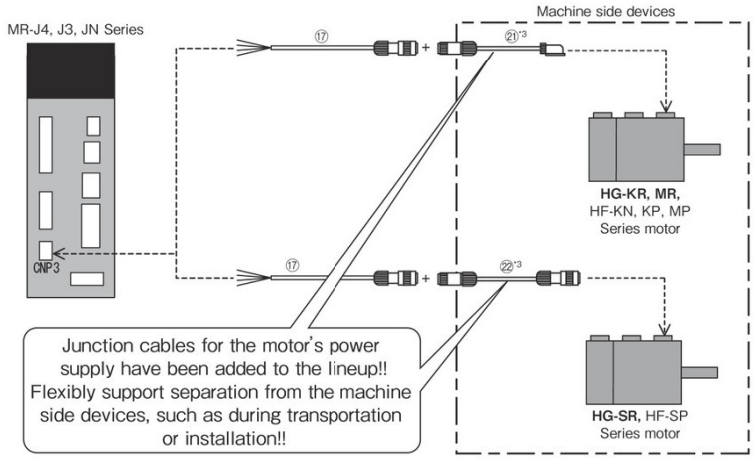


The Mitsubishi Electric Corp.'s standard 0.3m junction cable **can be extended up to 5m!!** *1 Flexibly support separation from the machine side devices, such as during transportation or installation!!

*1: If ⑦ and ⑧ have a cable length between 2 and 5m, the overall cable length for ⑥ and ⑦, and ② and ⑧ must be 40m or less, and the overall cable length for ⑬ and ⑦, and (11) and ⑧ must be 80m or less.
If ⑦ and ⑧ have a cable length of 1m, the overall cable length for ⑥ and ⑦, and ② and ⑧ must be 50m or less, and the overall cable length for ⑬ and ⑦, and ⑪ and ⑧ must be 100m or less.

*2: The overall cable length for ② and ⑨ must be 40m or less. The overall cable length for ⑪ and ⑭ must be 90m or less. Note that ② and ④, and ⑨ and ⑪ cannot be combined.

Power Cable



*3: The ⑰ and ㉑, and ⑰ and ㉒ combinations and overall cable length will vary according to the motor model. Refer to "Table of Power Cable Relay Connection Combinations" on page 10 and select the cable.

●Contact us for information on special cables (such as when connecting servo amplifier and servo motor with multiple cables).
Example) Junction with three encoder cables, etc.

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