

One-Touch Locking Style Small Sized Circular Connectors

CMV1 Series

DDK Ltd.

◆ OUTLINE

CMV1 series is a small sized waterproof circular connector with push-on locking and turn-off unlocking mechanism likewise CM10 series.

The plug connector will be easily locked with the receptacle when you push on. Rotating the coupling ring, the plug will be unlocked when you need to unmate. Therefore, the plug can not be unmated from the receptacle by such an unexpected force like the cable being pulled.

The plug can be mated with CM10 series receptacles.

It is improved anti-vibration and operability by revising the contact and frame.

*CMV1 series can be applied to MELSERVO-J4[®] manufactured by Mitsubishi Electric.



Waterproof

IP 67

Lock Type

Push-On

◆ FEATURES

1. Solid structure with metal shell
2. One-touch and reliable locking mechanism of push-on and turn-off
3. 10-contact plug type is adopted sequence mechanism which the ground contact mates first and breaks last.
4. Angle plug available for low-profile mounting
5. Improved anti-vibration by revising contact and frame

◆ SPECIFICATIONS

Item	2 Contacts	10 Contacts
Rated Current	3A Max. / Contact	
Rated Voltage	200V AC(r.m.s.) Max.	
Dielectric Withstanding Voltage	1500V AC(r.m.s.) / 1 minute	900V AC(r.m.s.) / 1 minute
Insulation Resistance	1,000M Ω Min. at 500V DC	
Operating Temperature Range	-25°C to +85°C	
Conductor Size	# 22	
Protection Rate	IP67 when mated (Receptacle : Individually waterproof)	
Applicable Wire	Plug • Crimp : 16AWG-20AWG • Soldering Use, : 16AWG Max.	Plug • Crimp : 20AWG-28AWG • Soldering Use, : 20AWG Max.
UL Standard	UL1977 File No. : E72124 certified	
CE Marking	Not Applicable	

◆ MATERIAL/FINISH



Item	Plug
Socket Insulator	Plastic/Gray
Socket Contact	Copper Alloy/Au plating
Coupling Ring	Zinc Alloy / Ni plating
O-ring(Mating side)	Synthetic Rubber
Plug Shell	Zinc Alloy / Ni plating
Compression Spring	Stainless Steel
Coupling Ring for Back shell	Zinc Alloy / Ni plating
Back shell	Aluminum Alloy / Ni plating
Bushing	Synthetic Rubber / Black
Cable Clamp	Plastic / White
Clamp Nut	Plastic / Black
Retainer Ring	Stainless Steel

※ Main components are only described as above.

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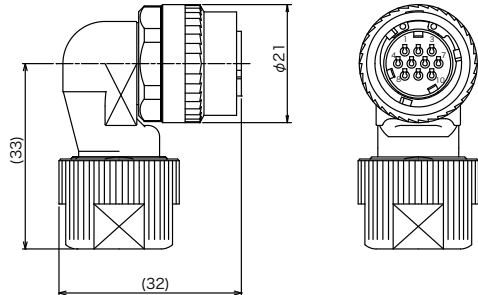
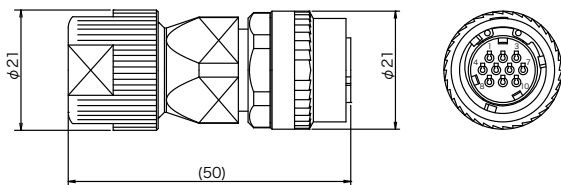
▶ 10-Contact Plug

- Contact Style : Socket
- Termination : Solder or Crimp
- The contact is sold separately.

Straight Plug



Right Angle Plug



Straight Plug P/N	Angle Plug P/N	Cable Outside Dia.
CMV1-SP10S-S	CMV1-AP10S-S	φ 4.0 ~ φ 6.0
CMV1-SP10S-M1	CMV1-AP10S-M1	φ 5.5 ~ φ 7.5
CMV1-SP10S-M2	CMV1-AP10S-M2	φ 7.0 ~ φ 9.0
CMV1-SP10S-L	CMV1-AP10S-L	φ 9.0 ~ φ 11.6

▶ Contact of 10-Contact Plug

Loose Piece Contact(Solder/Crimping Type)

Item	Contact P/N (100 pcs. in 1 bag)	Applicable Cable		Hand Tool P/N	Extraction Tool P/N
		Conductor Size	Insulation Dia.		
Crimping Type	CMV1-#22ASC-C1-100	20 ~ 24AWG	φ 1.40 ~ 2.00	357J-53162T	357J-53184T
	CMV1-#22ASC-C2-100	24 ~ 28AWG	φ 1.08 ~ 1.60	357J-53163T	
Soldering Type	CMV1-#22ASC-S1-100	20AWG Max.	φ 2.00 Max.		

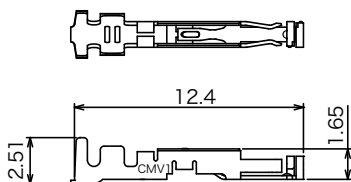
1. The packaging specification is 100 pcs of contacts per bag for sale.
2. Both of the solder contacts and the crimp contacts shall be inserted into the inserts of the connectors after soldering the contacts to the cable or crimping the contacts with the cable.
3. Above tools are dedicated to CMV1 series. Tools for conventional CM10 series can not be applicable.

Reel Contact for Semi-Automatic Machine (Crimping Type)

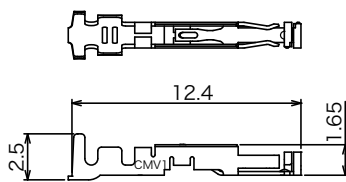
Contact P/N 5000 pcs. /1 Reel	Applicable Wire		Semi-Automatic Crimping Machine			Extraction Tool P/N
	Conductor Size	Insulation Dia.	Machine Type	1-Set P/N	Applicator P/N	
CMV1-#22ASC-C1-5000	20 ~ 24AWG	φ 1.40 ~ φ 2.00	Stripper Crimper	AP-A53165T-A	AP-A53165T	357J-53184T
			Crimper	AP-A53176T-A	AP-A53176T	
CMV1-#22ASC-C2-5000	24 ~ 28AWG	φ 1.08 ~ φ 1.60	Stripper Crimper	AP-A53166T-A	AP-A53166T	
			Crimper	AP-A53177T-A	AP-A53177T	

1. Applicator (AP-A53165T/AP-A53166T) are combined with the semi-automatic crimping machine which is provided with stripper.
2. Applicator (AP-A53176T/AP-A53177T) are combined with the semi-automatic crimping machine.
- ※ Semi-automatic crimping machine is common with CM10(D6) series.
3. Above applicators are dedicated to CMV1 series. Tools for conventional CM10 series can not be applicable.

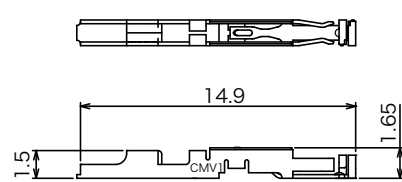
CMV1-#22ASC-C1-□□□□



CMV1-#22ASC-C2-□□□□



CMV1-#22ASC-S1-□□□□



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▶ 2-Contact Plug

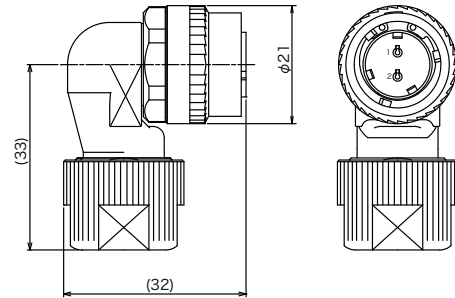
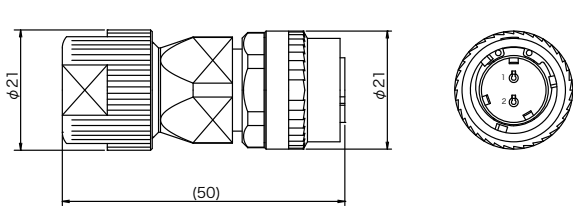
- Contact Style : Socket
- Termination : Solder or Crimp
- The contact is sold separately.



Straight Plug



Right Angle Plug



Straight Plug P/N	Angle Plug P/N	Cable Outside Dia.
CMV1-SP2S-S	CMV1-AP2S-S	φ 4.0 ~ φ 6.0
CMV1-SP2S-M1	CMV1-AP2S-M1	φ 5.5 ~ φ 7.5
CMV1-SP2S-M2	CMV1-AP2S-M2	φ 7.0 ~ φ 9.0
CMV1-SP2S-L	CMV1-AP2S-L	φ 9.0 ~ φ 11.6

▶ Contact of 2-Contact Plug

Loose Piece Contact(Solder/Crimping Type)

Item	Contact P/N (100 pcs./1 bag)	Applicable Cable		Hand Tool P/N	Extraction Tool P/N
		Conductor Size	Insulation Dia.		
Crimping Type	CMV1-#22BSC-C3-100	16 ~ 20AWG	φ 1.87 ~ φ 2.45	357J-53164T	357J-53184T
Soldering Type	CMV1-#22BSC-S2-100	16AWG max.	φ 3.00 Max.		

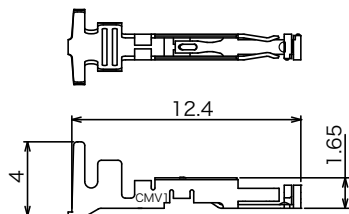
1. The packaging specification is 100 pcs of contacts per bag for sale.
2. Both of the solder contacts and the crimp contacts shall be inserted into the inserts of the connectors after soldering the contacts to the cable or crimping the contacts with the cable.
3. Above tools are dedicated to CMV1 series. Tools for conventional CM10 series can not be applicable.

Reel Contact for Semi-Automatic Machine (Crimping Type)

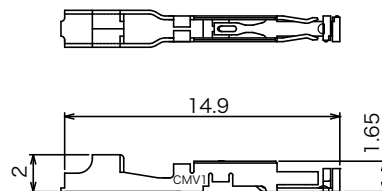
Contact P/N 4,000 pcs. on 1 Reel	Applicable Wire		Semi-Automatic Machine			Extraction Tool P/N
	Conductor Size	Insulation Dia.	Machine Type	1-Set P/N	Applicator P/N	
CMV1-#22BSC-C3-4000	16 ~ 20AWG	φ 1.87 ~ φ 2.45	Crimper	AP-A53210T-A	AP-A53210T	357J-53184T

1. Applicator (AP-A53165T/AP-A53166T) are combined with the semi-automatic crimping machine which is provided with stripper.
2. Applicator (AP-A53176T/AP-A53177T) are combined with the semi-automatic crimping machine.
※ Semi-automatic crimping machine is common with CM10(D6) series.
3. Above applicators are dedicated to CMV1 series. Tools for conventional CM10 series can not be applicable.

CMV1-#22BSC-C3-□□□□



CMV1-#22BSC-S2-□□□□

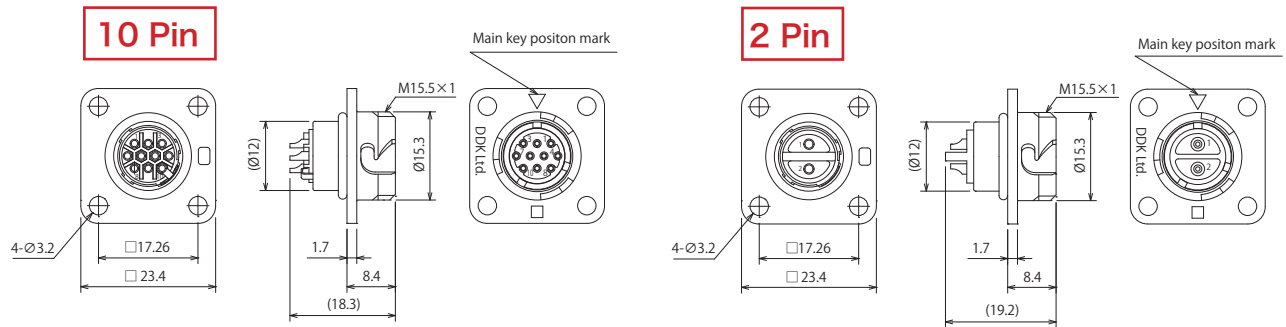


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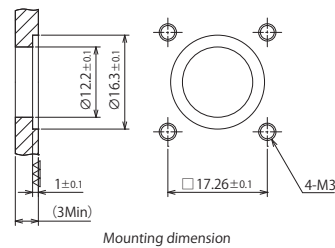
▶ Receptacle

Pin	Part Number	Packaging
10	CMV1-R10P(F)(P)	Individual
	CMV1-R10P(F)	Tray
2	CMV1-R2P(F)(P)	Individual
	CMV1-R2P(F)	Tray

- Pin contact style only
- Soldering termination only
- Conductor Size : 20 AWG Max.
- Individually waterproof



Contact No.10 grounded to shell with ground lug



▶ Cable Receptacle

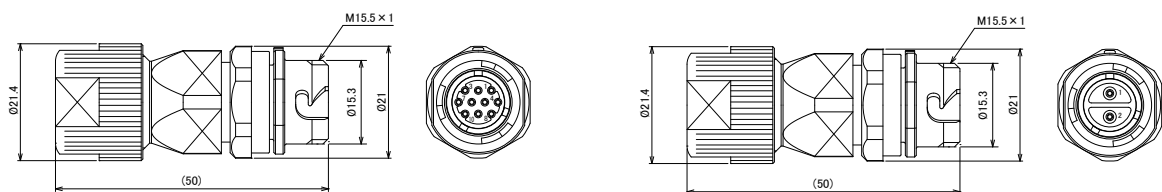
10 Pin

- Pin contact style only
- Soldering termination only
- Conductor Size : 20 AWG Max.
- Individually waterproof

2 Pin

- Pin contact style only
- Soldering termination only
- Conductor Size : 20 AWG Max.
- Individually waterproof

Contact No.10 grounded to shell with ground lug



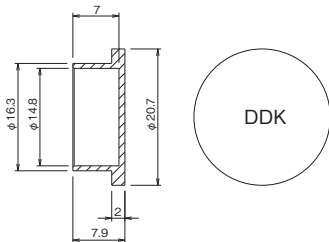
10 Pin	2 Pin	Applicable Cable Dia.
CMV1-CR10P-S	CMV1-CR2P-S	φ 4.0 ~ φ 6.0
CMV1-CR10P-M1	CMV1-CR2P-M1	φ 5.5 ~ φ 7.5
CMV1-CR10P-M2	CMV1-CR2P-M2	φ 7.0 ~ φ 9.0
CMV1-CR10P-L	CMV1-CR2P-L	φ 9.0 ~ φ 11.6

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▶ Accessories

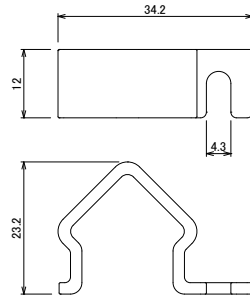
Dust Cap

Part Number
CM10-R-DC



Fixing Tool for Cable Receptacle (Resin Saddle)

Part Number
CMV1-RFT



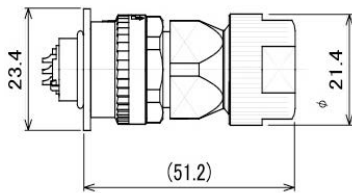
Fixing Tool Image

This is the fixing tool to fix the cable receptacle connector on the wall or floor.

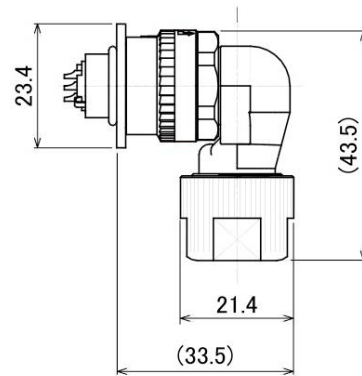
※ Fixed with commercial M4 screws.

▶ Mated Dimensions

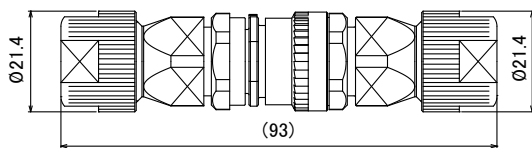
Receptacle + Straight Plug



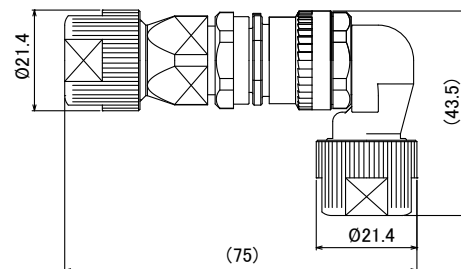
Receptacle + Right Angle Plug



Cable Receptacle + Straight Plug



Cable Receptacle + Angle Plug

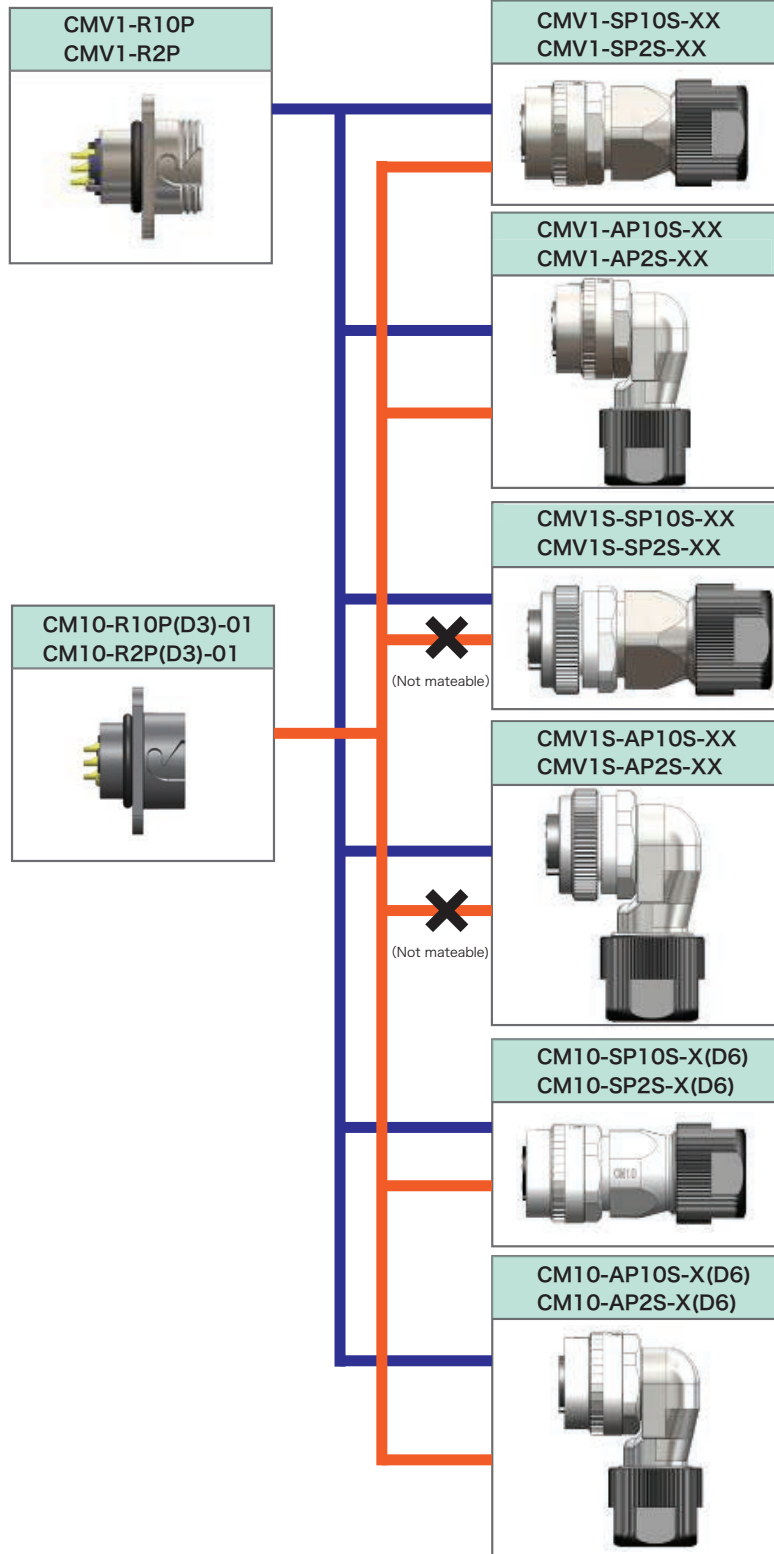


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▶ Combination table

Box Receptacle Connector
(Panel Mounting Type)

Plug Connector

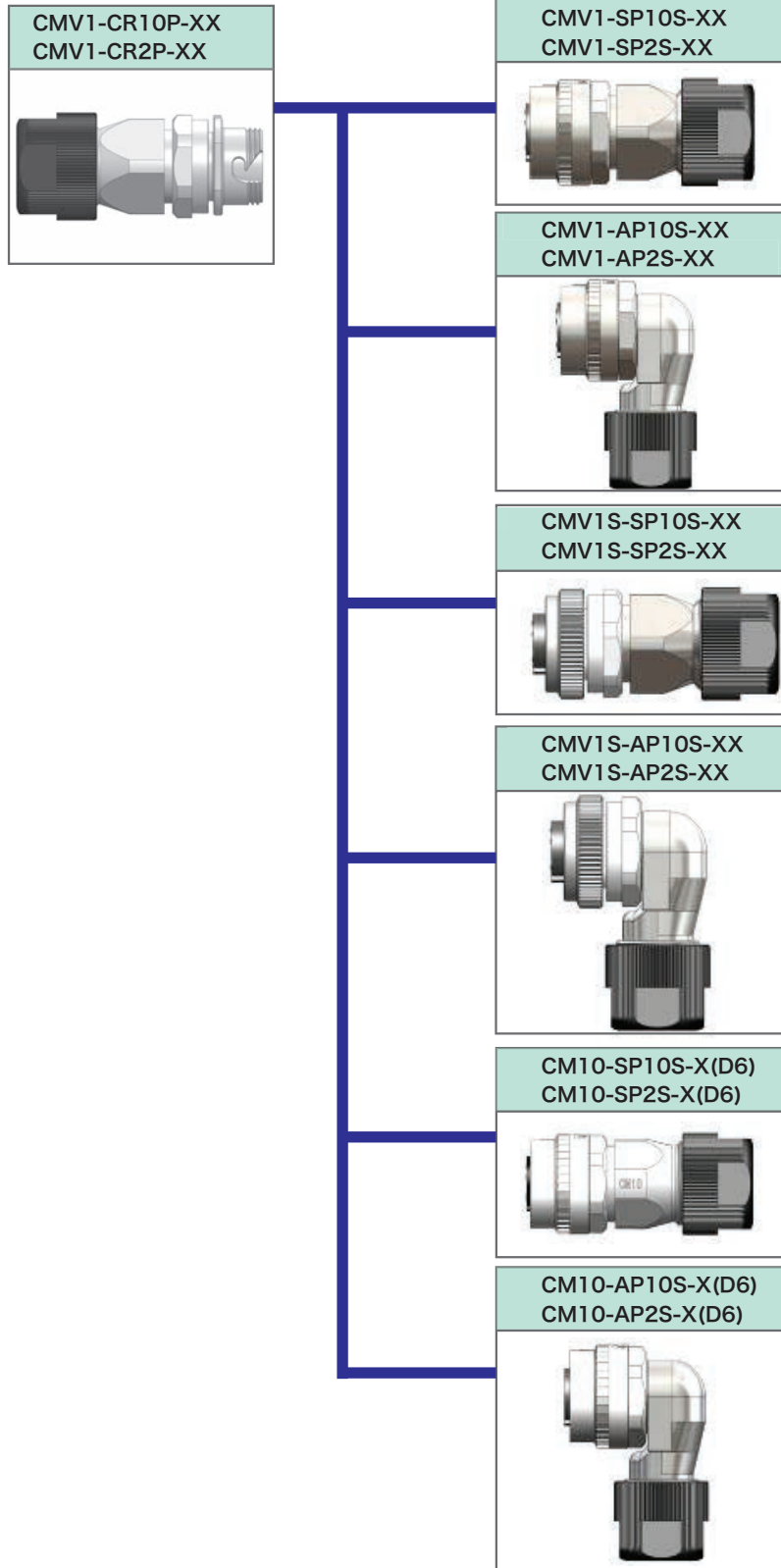


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▶ Combination table

ケーブルレセプタクル
コネクタ (中継タイプ)

プラグコネクタ



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