

APD 19-way is the latest addition to ITT's APD connector range. Based on ISO 15170 it adds additional features to the standard harsh environment capabilities.

Secondary lock, adaptation of market available standard accessories and ease of assembly and disassembly not demanding any special tooling characterize this connector. Moreover, APD 19 is set up around a flexible design platform which allows for customized solutions up to 27 contacts.

Applications for the 19-way include:

- Trucks, Busses, and Tractors
- Motor / Electronic Control Units
- Transmission
- Chassis wire-to-wire and Cabin pass through
- Industrial automation and instrumentation



Electrical Data

Operating Voltage	48 VDC*
Operating Current	See derating curve
Contact Resistance	5 mΩ max.
Voltage Proof	1000 VAC, 60 seconds
Insulation Resistance	10 MΩ min.

Mechanical Data

Durability	50 Mating Cycles
Coupling Torque	3,5 Nm max.
Static Load, free connector	250 N axial, 150 N lat. (ISO 15170-2, Sec. 4.5)
Dynamic Impact	Free fall with cable (EN 61984 Sec. A9, height 1m)

Environmental Data (acc. ISO 15170)

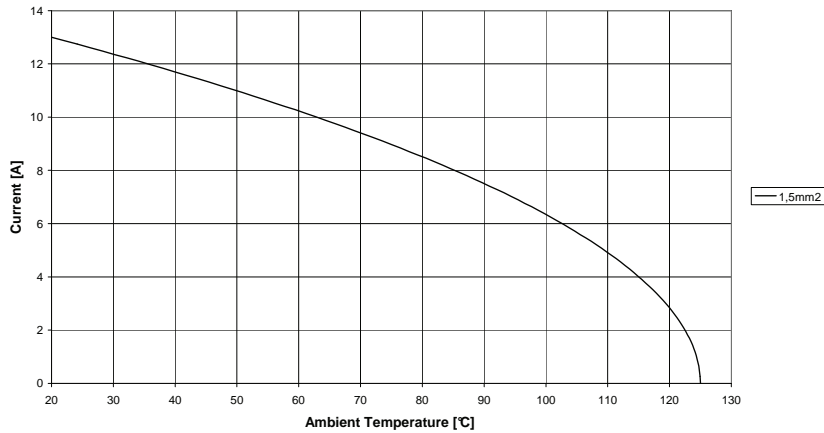
Temperature Range	-40 °C up to 125 °C (ISO 15170-2, Sec. 6.4)
Humidity Range	up to 95 % r.h. (ISO 15170-2, Sec. 6.4)
Sealing	IP 67 and IP 69K (DIN EN 60529)*
Salt Spray	96 h, 35 °C (ISO 15170-2, Sec. 6.2)
Industrial Climate	SO ₂ , 0,67 % (ISO 15170-2, Sec. 6.3)
Fluid Compatibility	Brakefluid, ATF, fuel, .. (ISO 15170-2, Sec. 6.6)*
Vibration Resistance	Sine, 300m/s ² , 3 x 100h, RT and 120°C (ISO 15170-2)*

Materials List

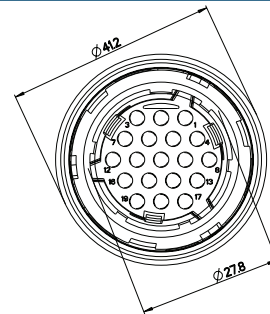
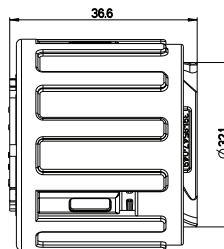
Housing Parts	PBT GF
Sealing Parts	FKM
Coupling Nut	PA 46 GF
Contacts	Copper Alloy, Au, Ag or Sn plated*

* Further information available upon request.

Derating Curve



Plug, 19-way



Order No.	Designation	Code	Color
121583-0119	APD-1BS19S	1	black (RAL 9005)
121583-0121	APD-2BS19S	2	grey (RAL 7036)
121583-0123	APD-3BS19S	3	green (RAL 6029)
121583-0125	APD-4BS19S	4	blue (RAL 5012)

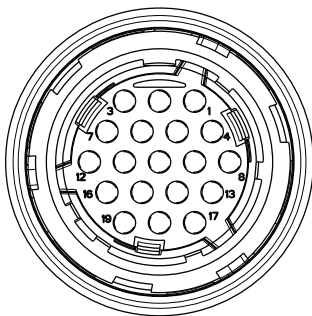
Packaging unit 50 pcs.

Note: Each packaging unit includes one release tool.

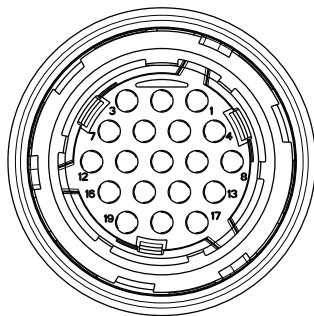
Socket crimp contacts see page 49.
Accessories, see pages 50, 51, and 52.

Coding, 19-way layouts

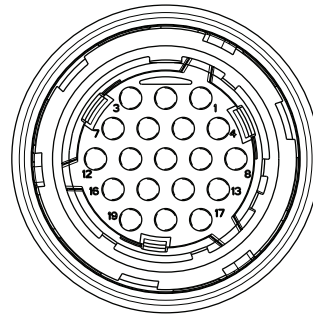
Code 1
black



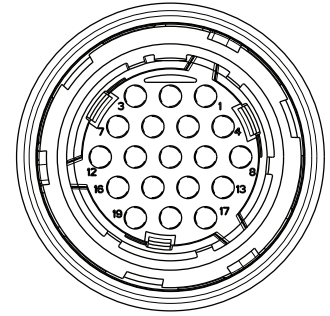
Code 2
grey



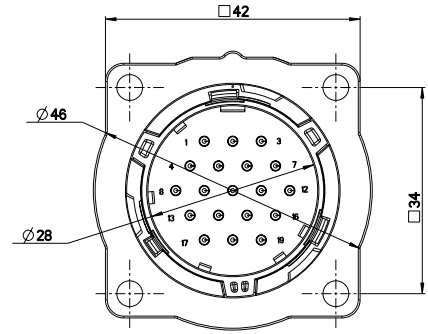
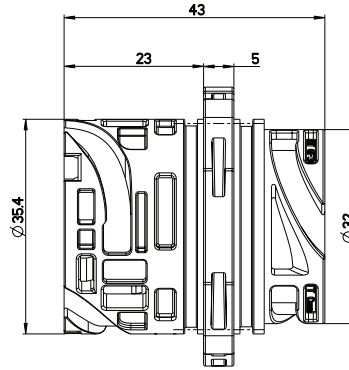
Code 3
green



Code 4
blue



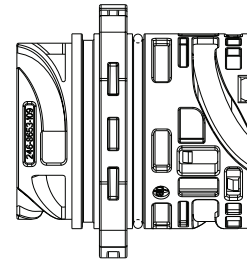
Flange Receptacle, 19-way



Order No.	Designation	Code	Color
121583-0120	APD-1AP19S	1	black (RAL 9005)
121583-0122	APD-2AP19S	2	grey (RAL 7036)
121583-0124	APD-3AP19S	3	green (RAL 6029)
121583-0126	APD-4AP19S	4	blue (RAL 5012)

Version with o-ring for rear panel mounting:

Order No.	Designation	Code	Color
121583-0127	APD-1AP19S-R	1	black (RAL 9005)
121583-0129	APD-2AP19S-R	2	grey (RAL 7036)
121583-0131	APD-3AP19S-R	3	green (RAL 6029)
121583-0133	APD-4AP19S-R	4	blue (RAL 5012)



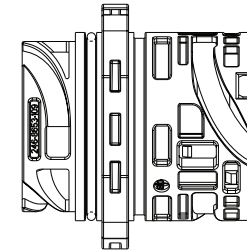
Version with o-ring for front panel mounting:

Order No.	Designation	Code	Color
121583-0128	APD-1AP19S-F	1	black (RAL 9005)
121583-0130	APD-2AP19S-F	2	grey (RAL 7036)
121583-0132	APD-3AP19S-F	3	green (RAL 6029)
121583-0134	APD-4AP19S-F	4	blue (RAL 5012)

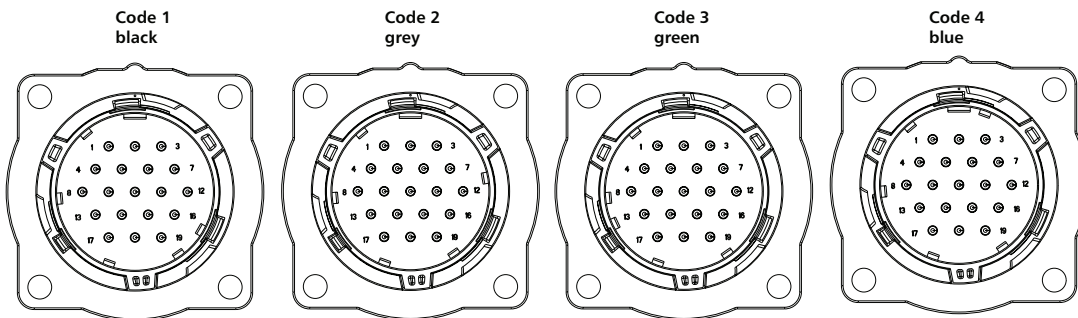
Packaging unit 50 pcs.

Note: Each packaging unit includes one release tool.

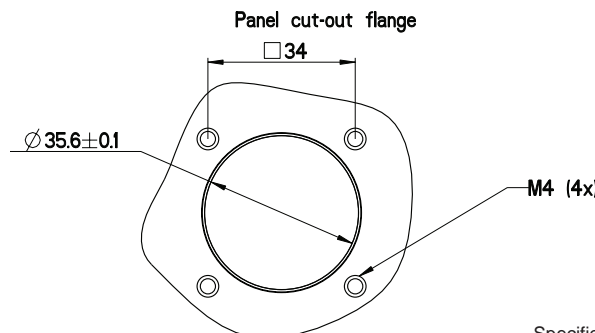
Pin crimp contacts see page 49.
Accessories, see pages 50, 51, and 52.



Coding, 19-way layouts



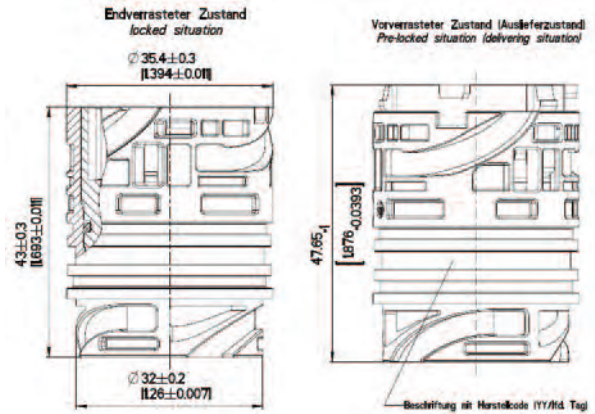
Panel Cut Out



Dimensions shown in mm
Specifications and dimensions subject to change

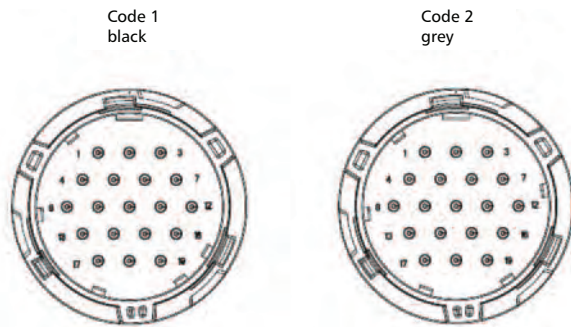
www.ittcannon.com

Wire-to-Wire Receptacle, 19-way

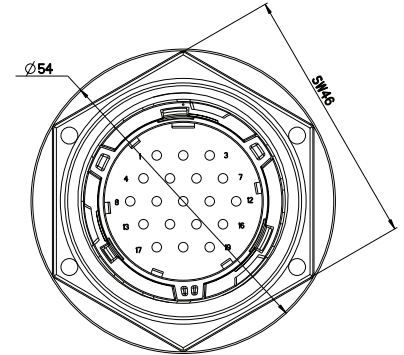
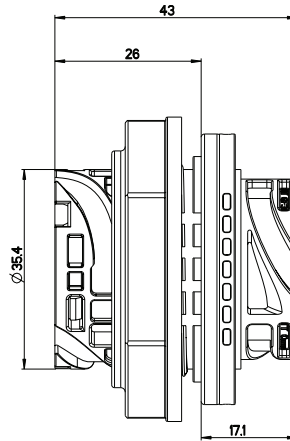
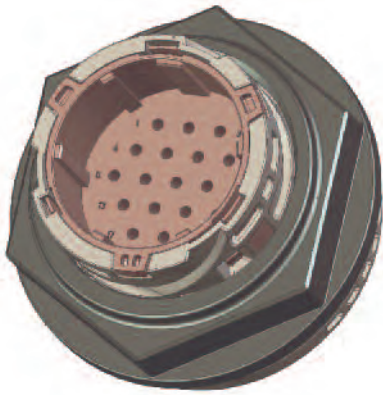


Order No.	Designation	Code	Color
121583-0135	APD-1BP19S	1	black (RAL 9005)
121583-0136	APD-2BP19S	2	grey (RAL7036)

Coding, 19-way layouts



Jam Nut Receptacle, 19-way



Order No.	Designation	Code	Color
Consult Factory	APD-1CP19S	1	black (RAL 9005)
Consult Factory	APD-2CP19S	2	grey (RAL 7036)
Consult Factory	APD-3CP19S	3	green (RAL 6029)
Consult Factory	APD-4CP19S	4	blue (RAL 5012)

Packaging unit 50 pcs.

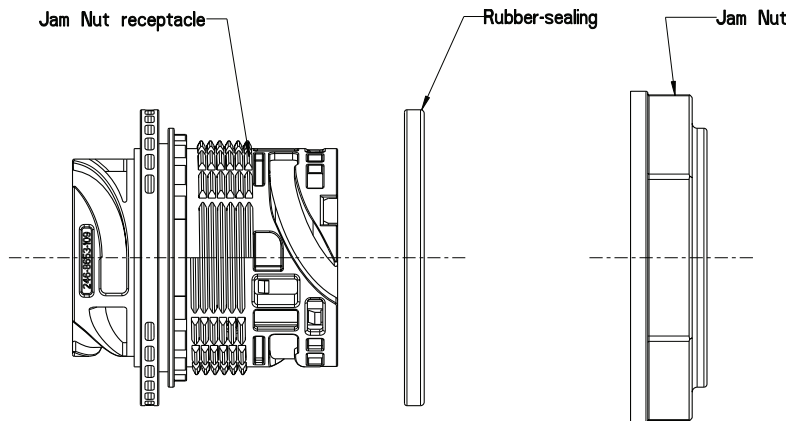
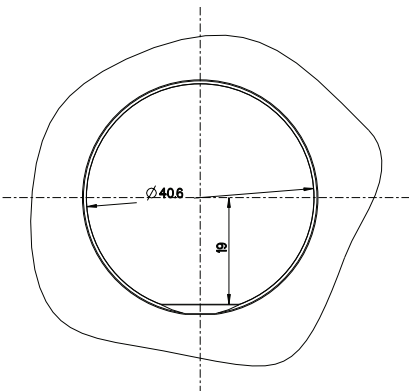
Note: Each packaging unit includes one release tool.

Pin crimp contacts see page 49.
Accessories, see pages 50, 51, and 52.

Coding, 19-way layouts

Keying positions: See coding, 19-way layouts plug or flange receptacle.

Panel Cut Out Piece Parts, Assembly Instructions



Dimensions shown in mm
Specifications and dimensions subject to change

CONTACTS



- Low contact resistance (max. 5mΩ) for maximum signal integrity
- Current carrying capacity: 12A max.
- Machined press-in contacts. (other machined contacts available on request)
- Silver plating, please consult factory

For 19-way

Contacts (stamped & formed)	Plating	Crimp Range	Reeled (5000 pcs)		Loose Piece (bags of 100)	
			Designation	Part number	Designation	Part number
Socket contacts	tin	0,35 - 0,75 mm ²	APK-SA16A07-002	121668-0221	APK-SA16A07-002-B	121668-0274
		0,75 - 1,5 mm ²	APK-SA16A15-002	121668-0202	APK-SA16A15-002-B	121668-0278
	gold (0,8 μm)	0,35 - 0,75 mm ²	APK-SA16G07-002	121668-0270	APK-SA16G07-002-B	121668-0276
		0,75 - 1,5 mm ²	APK-SA16G15-002	121668-0272	APK-SA16G15-002-B	121668-0280
Pin contacts	tin	0,35 - 0,75 mm ²	APK-PA16A07-002	121668-0252	APK-PA16A07-002-B	121668-0275
		0,75 - 1,5 mm ²	APK-PA16A15-002	121668-0253	APK-PA16A15-002-B	121668-0279
	gold (0,8 μm)	0,35 - 0,75 mm ²	APK-PA16G07-002	121668-0269	APK-PA16G07-002-B	121668-0277
		0,75 - 1,5 mm ²	APK-PA16G15-002	121668-0271	APK-PA16G15-002-B	121668-0281

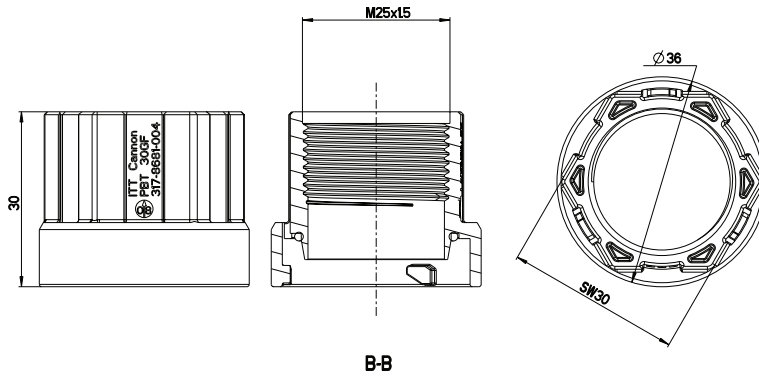
Press-In Contacts

Contacts (machined)	Plating	Crimp Range	Reeled		Single piece	
			Designation	Part number	Designation	Part number
Pin contacts	tin	0,3 - 0,6 mm ²	-	-	APK-PA16A06-E	Consult Factory
		0,3 - 0,6 mm ²	-	-	APK-PA16G06-E	Consult Factory
	gold (0,8 μm)	0,5 - 1,0 mm ²	-	-	APK-PA16G10-E	Consult Factory
		1,0 - 1,5 mm ²	-	-	APK-PA16G15-E	Consult Factory

Individual Wire Seals / Blind Seals

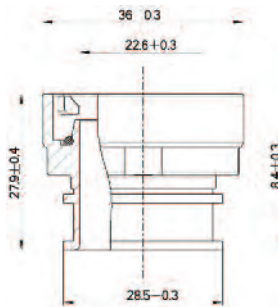
Description	Insulation Diameter	Color	Part Number
Single Wire Sealing	1,2 - 1,6 mm	Red	121667-0024
	1,4 - 2,0 mm	Grey	121667-0022
	1,9 - 2,1 mm	Yellow	121667-0023
Blind Seal	1,4 - 2,0 mm	White	121667-0025

Endbell, 19-way



Order No.	Designation	Color
044-8597-002	Endbell for APD 19 version only	black (RAL 9005)

Endbell Adapter, 19-way, for the use of standard 90° / Straight conduit accessories



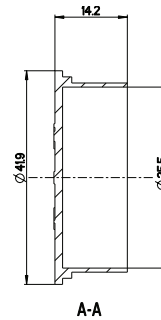
Order Number: 044-8597-004*

* Can be used in combination with PN 980-8672-034. Further adapters available upon request.

Dust Cap for Plug



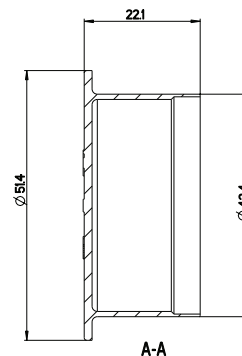
Order Number: 025-8636-053



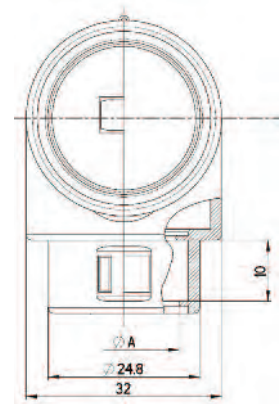
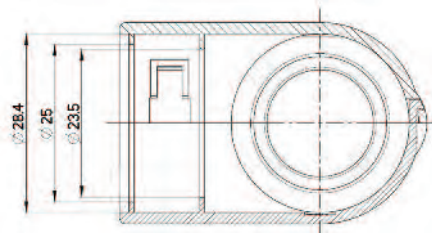
Dust Cap for Receptacle



Order Number: 025-0487-000



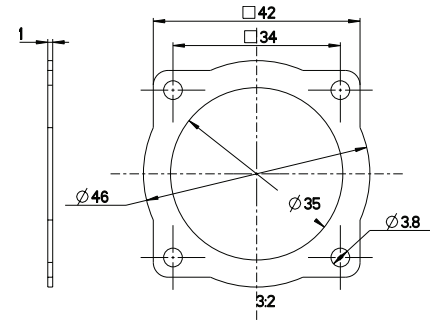
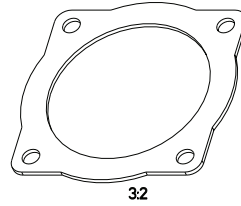
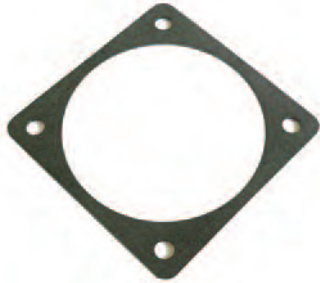
90° Endbell for Flex Tube



Order No.	Designation	Color	ø A	Nominal Dimension of Conduit
980-8672-034	90° Endbell Adapter	black	18	17
980-8672-035	90° Endbell Adapter	black	14	13

Packaging unit 100 pcs.

Flange Gasket, 19-way



Order Number: 075-8566-003

Conduit Adaptors, 19-way



Order No.	Designation
980-8672-015	90°, M25, NW23
980-8672-016	Straight, M25, NW17
980-8672-018	Elbow, M25, NW17
980-8672-020	45°, M25, NW23

All versions in black color

Conduit Retainers, 19-way



Order No.	Designation
980-8672-021	NW17

All versions in black color

Conduit Splitters, 19-way



Order No.	Designation
980-8672-017	Y-Splitter 17X17X23
980-8672-019	T-Splitter 17X17X17

All versions in black color

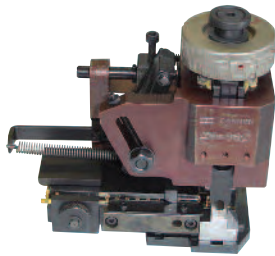
Note: Other versions available, consult factory for more information.

Hand Crimp Tool for Stamped and Formed Contacts



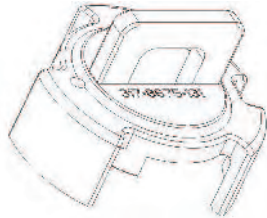
Contact	Hand Tool	Crimp Die
0,35 - 0,75 mm ²	121586-5156	Consult Factory
0,75 - 1,5 mm ²	121586-5156	121586-5197

Mini Applicator for Stamped and Formed Contacts



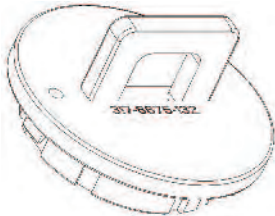
Contact	Order No.	Designation
0,35 - 0,75 mm ²	121586-5131	WWZ-20-100-APK16-07-002
0,75 - 1,5 mm ²	121586-5132	WWZ-20-100-APK16-15-002

Support Tools, 19-way



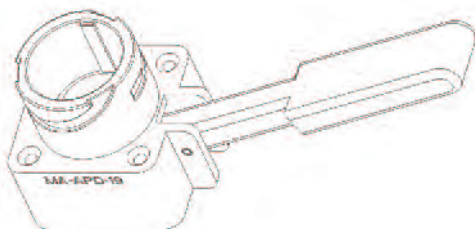
Designation	Order No.*
Release tool, secondary lock, plug	121586-5235
Release tool, secondary lock, receptacle	121586-5234

*Packaging unit of 50 pcs.



Assembly Adaptor	Order No.
MA-APD-19	Consult Factory

Locking tool for 19-way plug connectors



Hand Crimp Tool for Press-in Contacts



Basic Hand Crimp Tool	Order No.
M225201/1-01	995-0001-585

Locator	Order No.
M225201/1-05	995-0001-507

Automatic Crimp Tooling for Press-in Contacts



Designation	Order No.	Description
WAz7F-CE	121586-5067	Pneumatic Tool
M22501/1-05	995-0001-507	Locator
BM-2	121586-5068	Bench Mount
WA-10	121586-5069	Food Pedal

Assembly Tooling for Press-in Contacts



Designation	Order No.	Description
CHPZ-240	121586-0081	Hand Lever Press
CIT-APD16-TIP	317-8648-008	Mounting Tip