

APD 4-way connectors are the original DIN72585 (now ISO 15170) versions using a 2,5 mm contact system. Designed for automotive applications they also meet the requirements of transportation, off-road and special vehicle markets.

Applications for the 4- and 7-way connector include:

- Sensors
- Traction / Skid Control
- Brake Control
- Magnetic Switch Control Systems
- Lightening systems on Trucks and Trailers



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	1,2 Nm max.
Static Load, mated Connector	250 N axial, 150 N lat. (ISO 15170-2, Sec. 4.5)
Static Load, free connector	350 N (ISO 15170-2, Sec. 4.6)

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)*

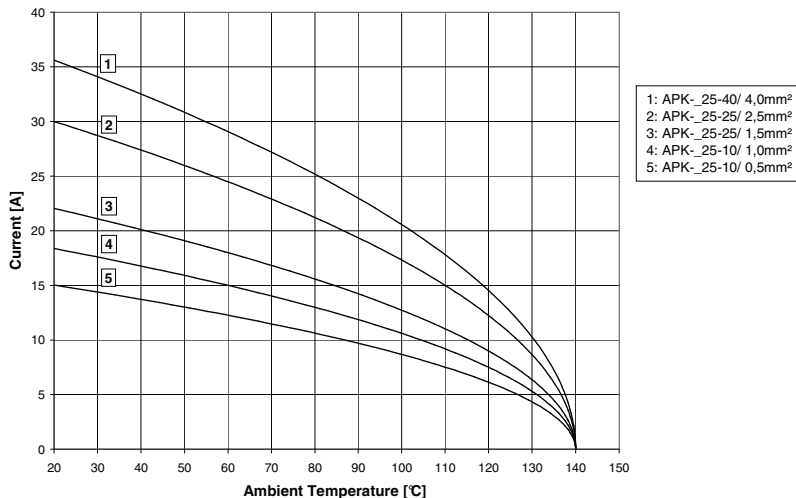
Materials List

Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Sn or Au plated

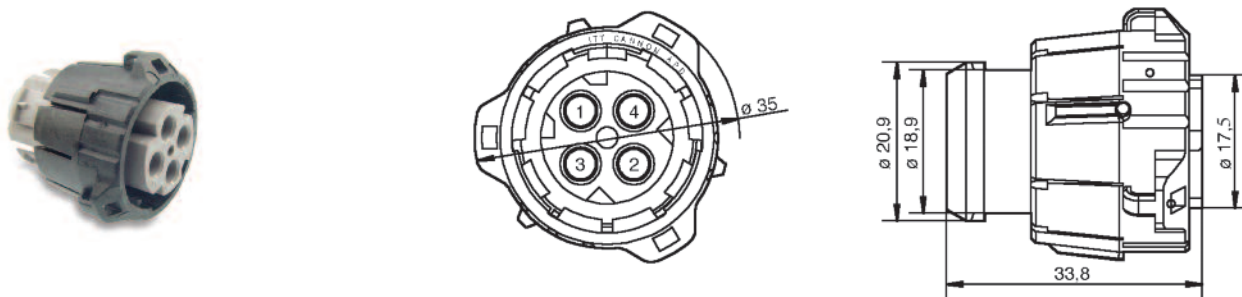
* Further information available upon request

Dimensions shown in mm
Specifications and dimensions subject to change

Derating Curve



Plug, 4-way



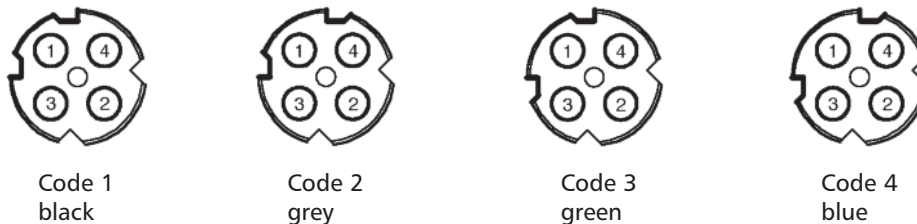
Order No.	Designation	Code	Color
121583-0000	APD-1BS-K2	1	black (RAL 9005)
121583-0001	APD-2BS-K2	2	grey (RAL 7036)
121583-0002	APD-3BS-K2	3	green (RAL 6029)
121583-0003	APD-4BS-K2	4	blue (RAL 5012)

Packaging unit 100 pcs.

Socket crimp contacts see page 32.
 Accessories, see pages 32 and 33.

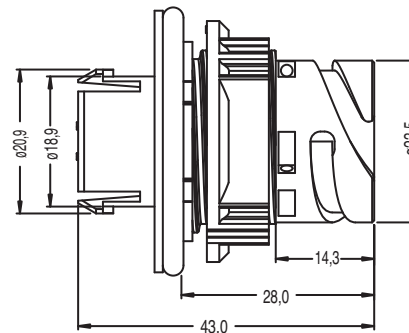
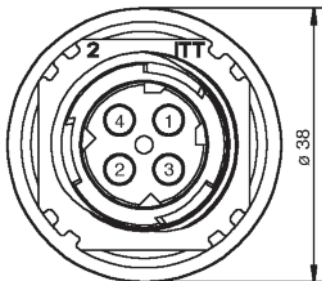
Coding, 4-way layouts

View on Mating Face



Note: The connectors offer both mechanical keying and visual coding by different colors.

Jam Nut Receptacle, 4-way



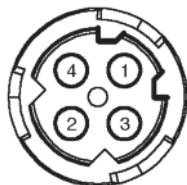
Order No.	Designation	Code	Color
121583-0008	APD-1CP-K2	1	black (RAL 9005)
121583-0009	APD-2CP-K2	2	grey (RAL 7036)
121583-0010	APD-3CP-K2	3	green (RAL 6029)
121583-0011	APD-4CP-K2	4	blue (RAL 5012)

Packaging unit 100 pcs.

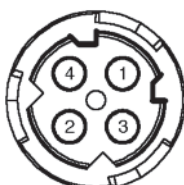
Pin crimp contacts see page 32.
 Accessories, see pages 32 and 33.
 Note: Includes jam nut for wall thickness 1...4 mm.

Coding, 4-way layouts

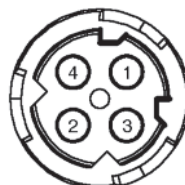
View on Mating Face



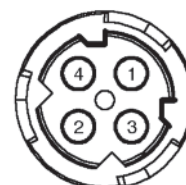
Code 1
black



Code 2
grey



Code 3
green

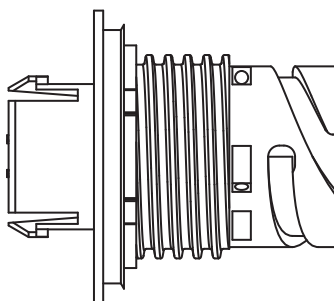
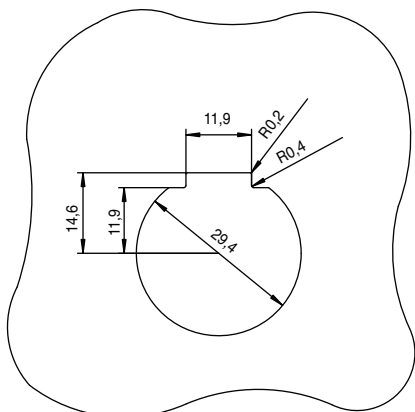


Code 4
blue

Note: The connectors offer both mechanical keying and visual coding by different colors.

Panel Cut Out

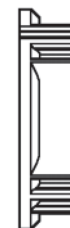
Piece Parts / Assembly Instruction



Housing



O-ring



Jam Nut

Wall Thickness: Standard Jam Nut: min. 1,0 / max. 4,0 mm Special Jam Nut: min. 2,0 / max. 5,0 mm

Jam Nut, special

Designation	Order No.
for special wall thickness 2,0 - 5,0 mm	217-8516-001



Dimensions shown in mm
 Specifications and dimensions subject to change

APD 4-way connectors are the original DIN72585 (now ISO 15170) versions using a 2,5 mm contact system. Designed for automotive applications they also meet the requirements of transportation, off-road and special vehicle markets. ITT has come up with a new high voltage version of the APD 4-way connector.

Applications for the 4-way connector include:

- Sensors
- Traction / Skid Control
- Brake Control
- Magnetic Switch Control Systems
- Lightening systems on Trucks and Trailers
- Electric Vehicles



Attention! Connector must not be disconnected under load!

Electrical Data

Operating Voltage	500 V DC/AC*
Operating Current	see derating curve
Contact Resistance	5 m Ω max.
Voltage Proof	3500 VAC, 30 seconds
Insulation Resistance	10 M Ω min.

Mechanical Data

Durability	50 Mating Cycles
Coupling Torque	1,2 Nm max.
Static Load, mated Connector	250 N axial, 150 N lat. (ISO 15170-2, Sec. 4.5)
Static Load, free connector	350 N (ISO 15170-2, Sec. 4.6)

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)*

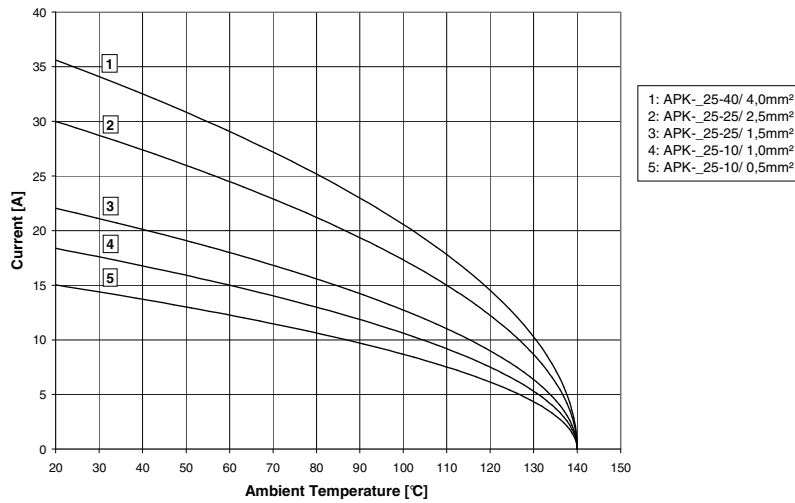
Materials List

Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Sn or Au plated

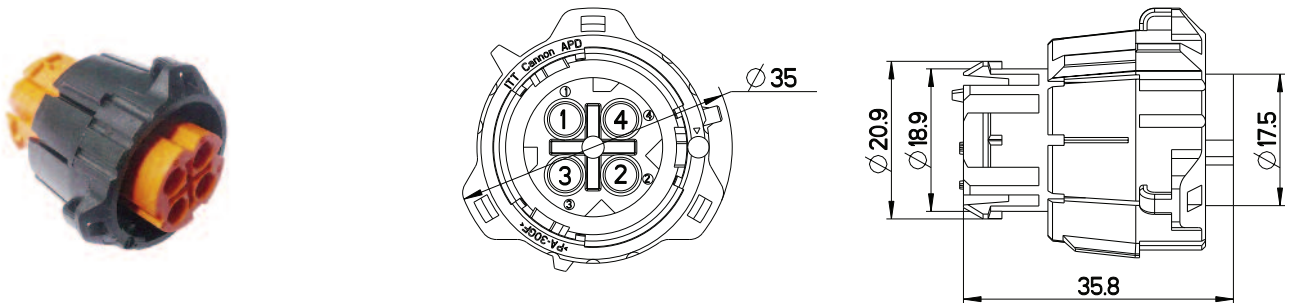
* Further information available upon request

Dimensions shown in mm
Specifications and dimensions subject to change

Derating Curve



Plug, 4-way High Voltage



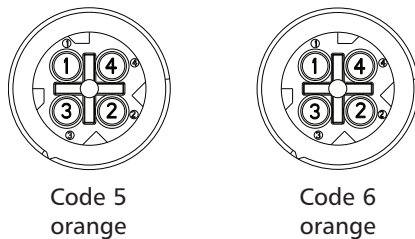
Order No.	Designation	Code	Color
121583-0213	APD-59BS-HV	5	orange (RAL 2003)
121583-0214	APD-69BS-HV	6	orange (RAL 2003)

Packaging unit 100 pcs.

Socket crimp contacts see page 32.
Accessories, see pages 32 and 33.

Coding, 4-way layouts High Voltage

View on Mating Face



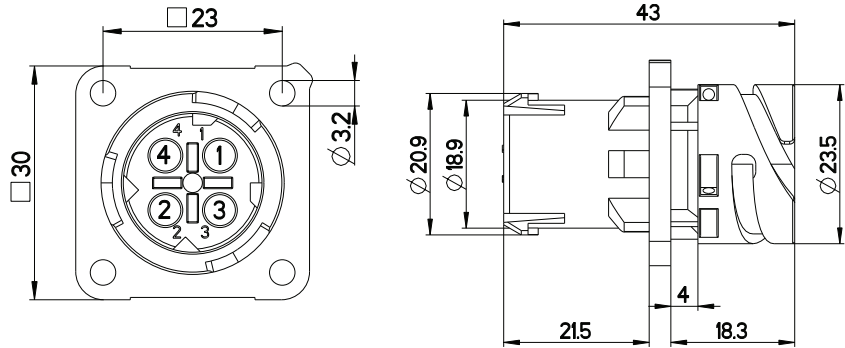
Note: The connectors offer both mechanical keying and visual coding by different colors.



Dimensions shown in mm
Specifications and dimensions subject to change

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Flange Receptacle, 4-way High Voltage



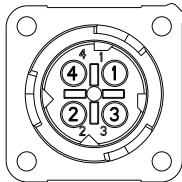
Order No.	Designation	Code	Color
121583-0215	APD-59AP-HV	5	orange (RAL 2003)
121583-0216	APD-69AP-HV	6	orange (RAL 2003)

Packaging unit 100 pcs.

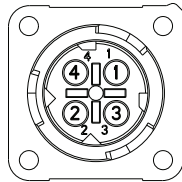
Pin crimp contacts see page 32.
Accessories, see pages 32 and 33.

Coding, 4-way layouts High Voltage

View on Mating Face



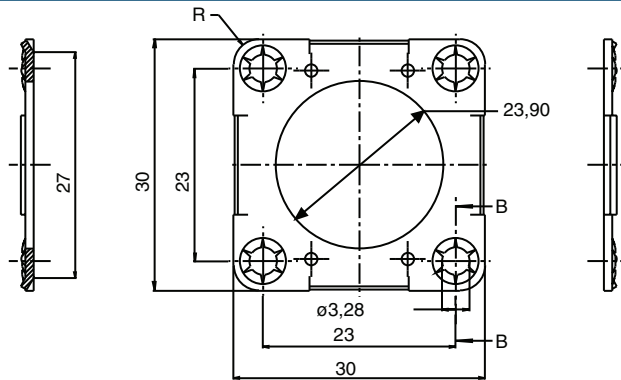
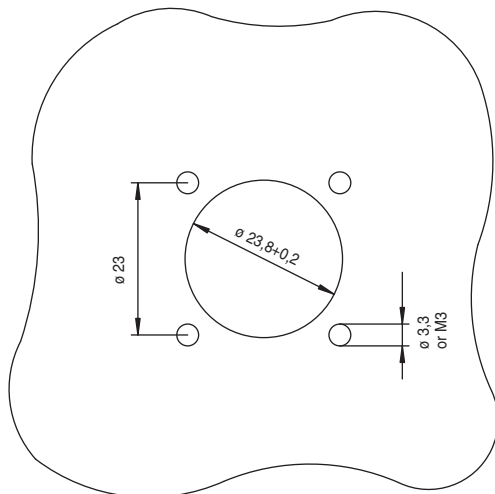
Code 5
orange



Code 6
orange

Note: The connectors offer mechanical keying.

Panel Cut Out Flange for all Flange Receptacles



Order Number: 066-8516-005

Metal mounting flange for wall mounting of flange receptacle.

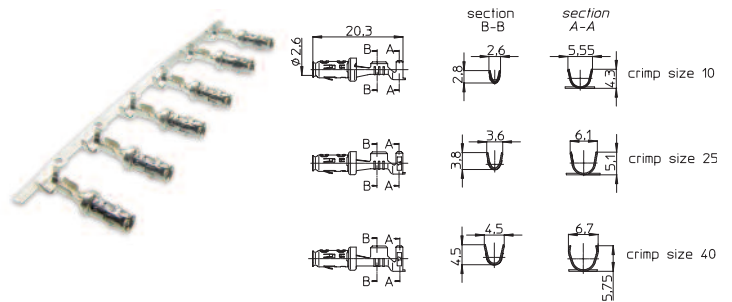
Dimensions shown in mm
Specifications and dimensions subject to change

Socket Crimp-Contacts Standard Tinned, 3000 contacts per reel

Designation - Standard	Order No.
APK-SB25A10-002 (0,5 - 1,5 mm ²)	121668-0125
APK-SB25A25-002 (1,5 - 2,5 mm ²)	121668-0126
APK-SB25A40-002 (2,5 - 4,0 mm ²)	121668-0127

Optional with Au-flash	Order No.
APK-SB25H10-002 (0,5 - 1,5 mm ²)	121668-0022
APK-SB25H25-002 (1,5 - 2,5 mm ²)	121668-0128
APK-SB25H40-002 (2,5 - 4,0 mm ²)	121668-0124

Note: For versions with silver plating please consult factory.

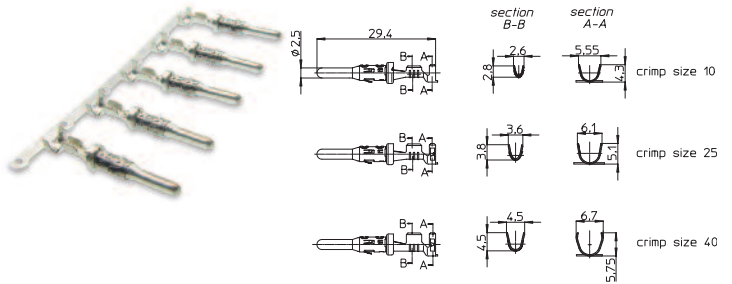


Pin Crimp-Contacts Standard Tinned, 3000 contacts per reel

Designation - Standard	Order No.
APK-PB25A10-002 (0,5 - 1 mm ²)	121668-0026
APK-PB25A25-002 (1,5 - 2,5 mm ²)	121668-0027
APK-PB25A40-002 (2,5 - 4,0 mm ²)	121668-0028

Optional with Au-flash	Order No.
APK-PB25H10-002 (0,5 - 1 mm ²)	121668-0021
APK-PB25H25-002 (1,5 - 2,5 mm ²)	121668-0029
APK-PB25H40-002 (2,5 - 4,0 mm ²)	121668-0025

Note: For versions with silver plating please consult factory.

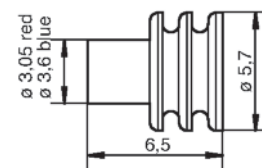


Individual Wire Seals

For all versions 4-way

Designation	Order No.
10RD5821	121668-0032
Wire insulation \varnothing 1,4 - 2,0 mm / red	
15BL5822	121668-0033
Wire insulation \varnothing 2,1 - 2,9 mm / blue	

Note: Packaging unit 5000 pcs.

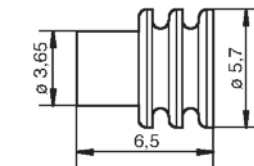


Wire Filler

For all versions 4-way

Designation	Order No.
15WH5823	121668-0034
white	

Note: Packaging unit 5000 pcs.

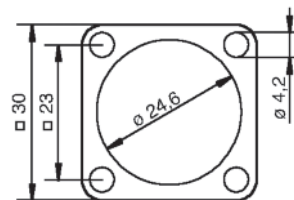


Flange Gasket

For Flange Receptacle, 4-way

Order No.
075-8503-000 (-55/125°C)
075-8503-004 (-30/200°C)

Packaging unit 100 pcs.



Sealing Cap for Receptacle

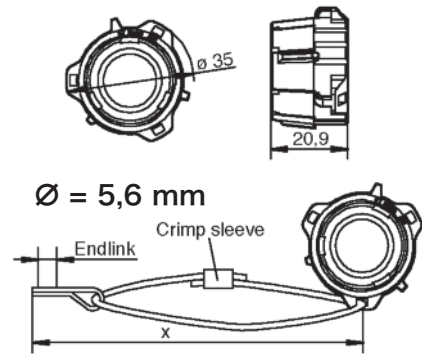
Designation	Order No.
APD-DP	121583-0021

Packaging unit 100 pcs.

APD-DP with rope, end link and eyelet
 X = Total rope length upon request

Order number 120110-0026* X~9cm

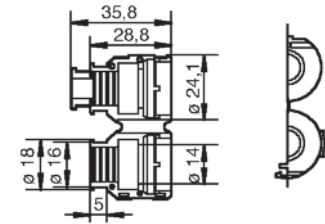
* for other lengths please consult the factory



Straight Endbell for Flex Tube

Order No.	058-8578-100 (ø 8,5 mm)
	058-8578-102 (ø 10,0 mm)

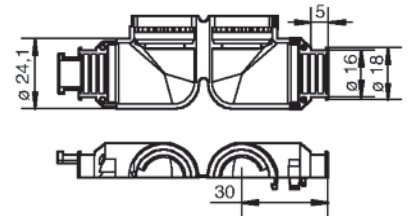
Packaging unit 100 pcs.



90° Endbell for Flex Tube

Order No.	058-8578-101 (ø 8,5 mm)
	058-8578-103 (ø 10,0 mm)
	058-8578-105 (ø 11,0 mm)

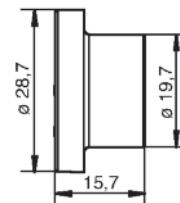
Packaging unit 100 pcs.



Dust Cap for Plug

Order No.	025-8636-005
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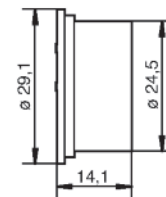
Packaging unit 100 pcs.



Dust Cap for Receptacle

Order No.	025-0480-000
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Packaging unit 100 pcs.



Blind Socket for 1 / 2 / 4 / 6 / 7-way

Order No.	120110-0217
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Packaging unit 100 pcs.

Note: All cavities closed, mates with 1-7-way APD versions.



Dimensions shown in mm
 Specifications and dimensions subject to change

Crimp and Assembly Tools for APK 25 Contacts

Contact / Socket	Designation	Order No.
APK-SB25A10-002 (0,5 - 1,0 mm ²)	CHT-APK-25-002-Seal	121586-5242
APK-SB25A25-002 (1,5 - 2,5 mm ²)	CHT-APK-25-002-Seal	121586-5242
APK-SB25A40-002 (2,5 - 4,0 mm ²)	CHT-APK-25-002-Seal	121586-5242

Contact / Pin	Designation	Order No.
APK-PB25A10-002 (0,5 - 1,0 mm ²)	CHT-APK-25-002-Seal	121586-5242
APK-PB25A25-002 (1,5 - 2,5 mm ²)	CHT-APK-25-002-Seal	121586-5242
APK-PB25A40-002 (2,5 - 4,0 mm ²)	CHT-APK-25-002-Seal	121586-5242

Quick Change Tool for above Crimp Machine: (Mini Applicator)



Contact / Socket	Designation	Order No. (to be mentioned on order)
APK-SB25A10-002 (0,5 - 1,0 mm ²)	WWZ.20-100-APK25-10-002	121586-5134
APK-SB25A25-002 (1,5 - 2,5 mm ²)	WWZ.20-100-APK25-25-002	121586-5135
APK-SB25A40-002 (2,5 - 4,0 mm ²)	WWZ.20-100-APK25-40-002	121586-5136
APK-SB25A40-002 (2,5 - 4,0 mm ²)	WWZ-Mecal-APK25-40-002	121586-5249

Contact / Pin	Designation	Order No. (to be mentioned on order)
APK-PB25A10-002 (0,5 - 1,0 mm ²)	WWZ.20-100-APK25-10-002	121586-5134
APK-PB25A25-002 (1,5 - 2,5 mm ²)	WWZ.20-100-APK25-25-002	121586-5135
APK-PB25A40-002 (2,5 - 4,0 mm ²)	WWZ.20-100-APK25-40-002	121586-5136
APK-PB25A40-002 (2,5 - 4,0 mm ²)	WWZ-Mecal-APK25-40-002	121586-5249

Contact Extraction Tool



Order No.	Designation
121086-3278	CET-APK25