

APD 6/7-way connectors are a derivative of the 4-way connector providing higher pin counts using a 1,6 mm connector system. They are available as versions with stamped and machined contacts.

Applications for the 6- 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, free connector | 350 N (ISO 15170-2, Sec. 4.6) |
| Dynamic Impact | 2 J (49mm- ball- drop- test, height 400mm) |

Environmental Data (acc. ISO 15170)

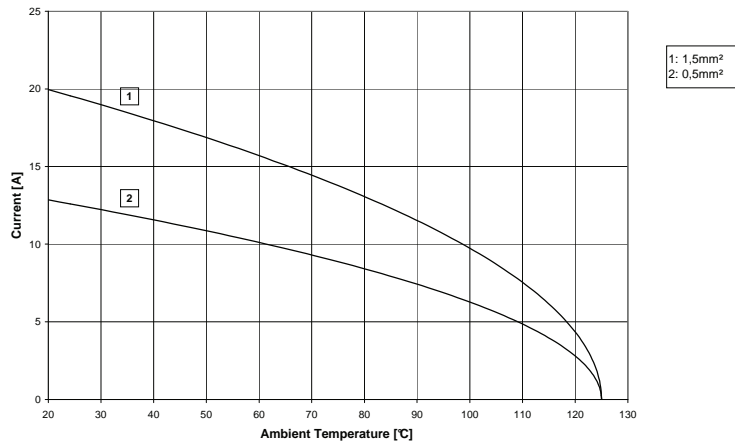
| | |
|----------------------|---|
| Temperature Range | -40 °C up to 125 °C (ISO 15170-2, Sec. 6.4) |
| Humidity Range | up to 95 % r.h. (ISO 15170-2, Sec. 6.4) |
| Sealing | IP 67 and IP 69K (DIN EN 60529)* |
| Salt Spray | 96 h, 35 °C (ISO 15170-2, Sec. 6.2) |
| Industrial Climate | SO ₂ , 0,67 % (ISO 15170-2, Sec. 6.3) |
| Fluid Compatibility | Brakefluid, ATF, fuel, .. (ISO 15170-2, Sec. 6.6)* |
| Vibration Resistance | Sine, 200m/s ² , 3 x 100h, RT and 120°C (ISO 15170-2)* |

Materials List

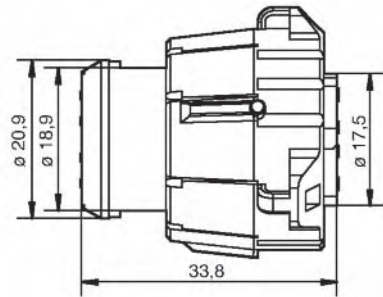
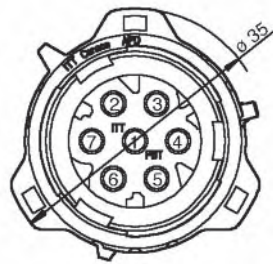
| | |
|---------------|-------------------------------|
| Housing Parts | PBT GF |
| Sealing Parts | HNBR (alternative FKM) |
| Coupling Nut | PA 66 GF |
| Contacts | Copper Alloy, Sn or Au plated |

*Further information upon request

Derating Curve



Plug, 6/7-way



| | Order No. | Designation | Code | Color |
|--------|-------------|-------------|------|------------------|
| 6-way* | 120110-0024 | APD-1BS6 | 1 | black (RAL 9005) |
| 7-way | 121583-0211 | APD-14BS7 | 1 | blue (RAL 5012) |
| 7-way | 121583-0018 | APD-1BS7 | 1 | black (RAL 9005) |

Packaging unit 100 pcs.

Socket crimp contacts see page 39.
 Accessories, see pages 39 and 40.
 *contact cavity 1 closed

Coding, 6/7-way layouts

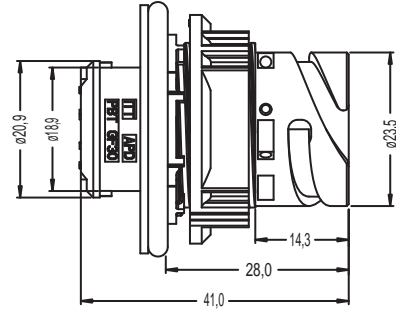
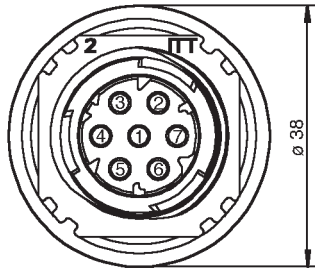


6-way



7-way

Jam Nut Receptacle, 6/7-way for standard contacts



| | Order No. | Designation | Code | Color |
|--------|-------------|-------------|------|------------------|
| 6-way* | 121583-0061 | APD-1CP6 | 1 | black (RAL 9005) |
| 7-way | 121583-0019 | APD-1CP7 | 1 | black (RAL 9005) |

Versions for press-in Contacts

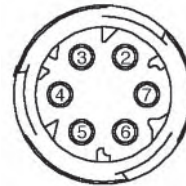
| | Order No. | Designation | Code | Color |
|-------|-------------|-------------|------|------------------|
| 7-way | 121583-0028 | APD-1CP7-EP | 1 | black (RAL 9005) |

Packaging unit 100 pcs.
* Contact cavity 1 closed

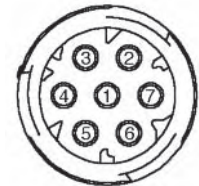
Jam Nut Receptacle, 6/7-way for crimp press-in contacts

Order No. upon request 6-way Jam Nut Receptacle

Order No. upon request 7-way Jam Nut Receptacle



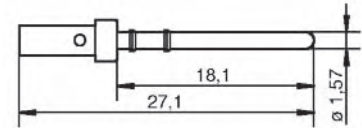
6-way



7-way

Press-in Crimp Contact For Flange and Jam Nut Receptacle

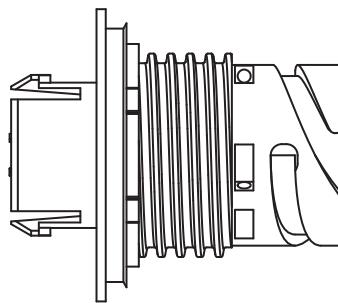
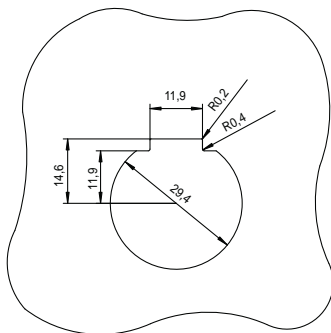
Order No.
330-8672-021 (tinned) (0,75 - 1,5 mm²)
330-8672-019 (tinned) (0,35 - 0,75 mm²)
with gold flash plating upon request
Packaging unit 100 pcs.



Tooling see page

Note: Press-in Crimp Contacts are not removable after insertion.

Panel Cut Out Flange for all Flange Receptacles



Housing



O-ring



Jam Nut

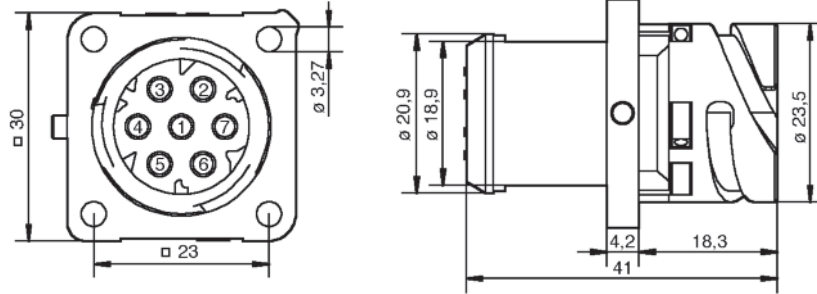
Wall Thickness: Standard Jam Nut: min. 1,0 / max. 4,0 mm Special Jam Nut: min. 2,0 / max. 5,0 mm

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

Flange Receptacle, 6/7-way for standard contacts



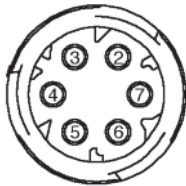
| | Order No. | Designation | Code | Color |
|--------|-------------|-------------|------|------------------|
| 7-way | 121583-0020 | APD-1AP7 | 1 | black (RAL 9005) |
| 6-way* | 120110-0083 | APD-1AP6 | 1 | black (RAL 9005) |

Versions for press-in Contacts

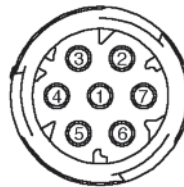
| | Order No. | Designation | Code | Color |
|--------|-------------|--------------|------|------------------|
| 6-way* | 120110-0020 | APD-1AP6-EP | 1 | black (RAL 9005) |
| 7-way | 121583-0212 | APD-14AP7-EP | 1 | blue (RAL 5012) |
| 7-way | 121583-0205 | APD-1AP7-EP | 1 | black (RAL 9005) |

Packaging unit 100 pcs.
 Pin crimp contacts see page 39.
 Accessories, see pages 39 and 40.
 * Contact cavity 1 closed

Coding 6/7-way layouts



6-way

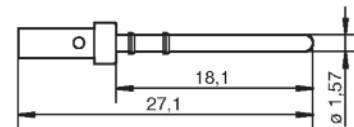


7-way

Press-in Crimp Contact

For Flange and Jam Nut Receptacle

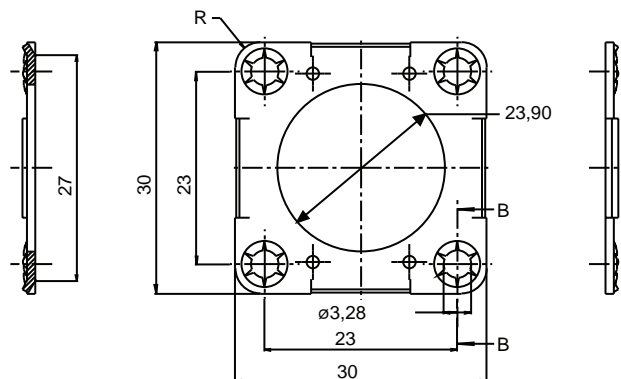
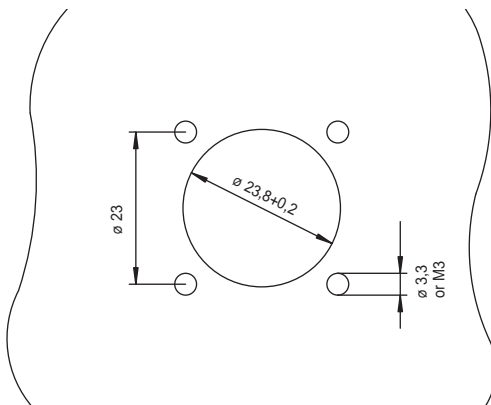
Order No.
 330-8672-021 (tinned) (0,75 - 1,5 mm²)
 330-8672-019 (tinned) (0,35 - 0,75 mm²)
 with gold flash plate upon request
 Packaging unit 100 pcs.



Note: Press-in Crimp Contacts are not removable after insertion.

Panel Cut Out

Flange for all Flange Receptacles

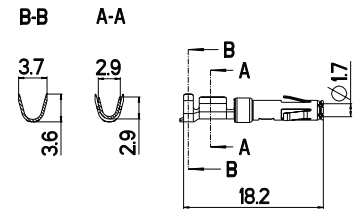


Dimensions shown in mm
 Specifications and dimensions subject to change

Socket Crimp-Contacts 1,6 mm Standard Tinned, 3000 contacts per reel

Order No. 192900-0001 (0,75 - 1,5 mm²)
 *192900-0003 Loose Piece Bulk Pack

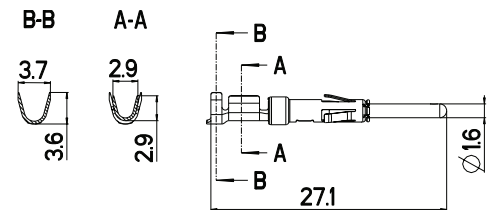
* Crimp Tool - 121586-5237



Pin Crimp-Contacts 1,6 mm Standard Tinned, 3000 contacts per reel

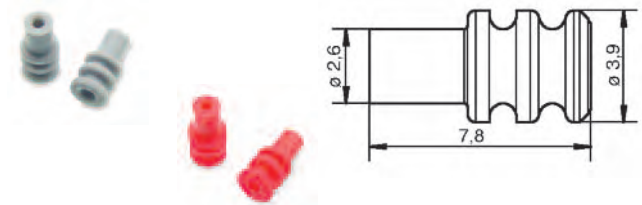
Order No. 192900-0000 * (0,75 - 1,5 mm²)
 192900-0002 Loose Piece Bulk Pack

* Crimp Tool - 112108-0014



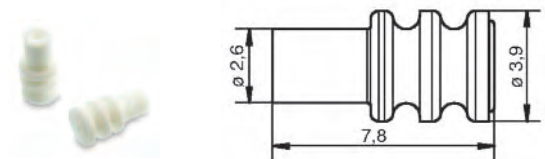
Individual Wire Seals

| Designation | Order No. |
|---|-------------|
| Wire insulation ø 1,4 - 2,0 mm / grey | 121667-0022 |
| Wire insulation ø 1,9 - 2,1 mm / yellow | 121667-0023 |
| Wire insulation ø 1,2 - 1,6 mm / red | 121667-0024 |



Wire Filler

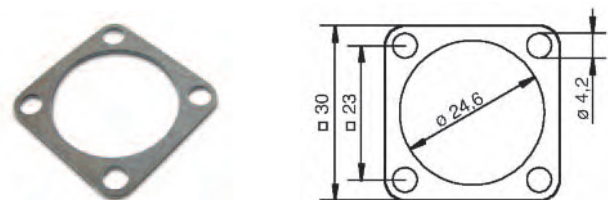
| Designation | Order No. |
|-------------|-------------|
| 10WH3940 | 121667-0025 |



Gasket for all Flange Receptacles

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

Packaging unit 100 pcs.



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

Order No. 120110-0217

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

Sealing Cap for Receptacle

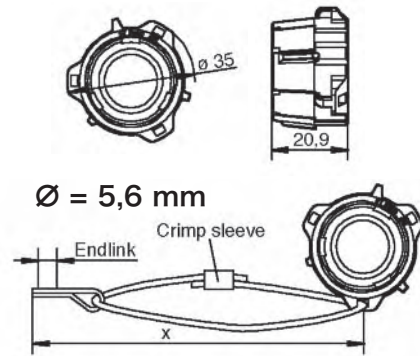
Designation Order No.
 APD-DP 121583-0021

Packaging unit 100 pcs.

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

Order number 120110-0026* X~9cm

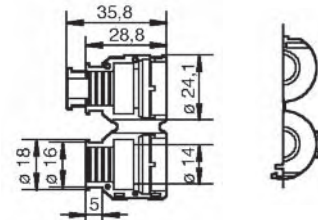
* for other lengths please consult the factory



Straight Endbell for Flex Tube

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

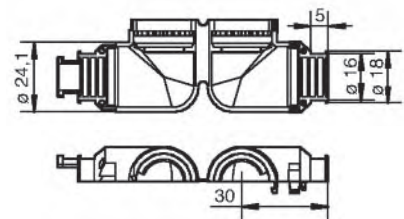
Packaging unit 100 pcs.



90° Endbell for Flex Tube

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

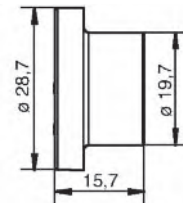
Packaging unit 100 pcs.



Dust Cap for Plug

Order No. 025-8636-005

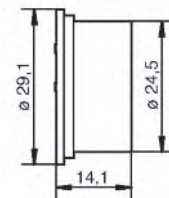
Packaging unit 100 pcs.



Dust Cap for Receptacle

Order No. 025-0480-000

Packaging unit 100 pcs.



Hand Tool for formed (stamped contacts)



| Contact Pin | Contact Socket | Designation | Order No. (to be mentioned on order) |
|-------------|----------------|-------------------|--------------------------------------|
| 192990-0100 | 192990-0110 | CHT-Trident-16-18 | 121586-5237 |
| 192900-0446 | 192900-0450 | CHT-Trident-16-18 | 121586-5237 |
| 192990-0060 | 192990-0070 | CHT-Trident-16-18 | 121586-5237 |
| 192900-0002 | 192990-0003 | CHT-Trident-16-18 | 121586-5237 |

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



| Contact / Socket | Designation | Order No. (to be mentioned on order) |
|--|---------------------|--------------------------------------|
| 192900-0001 (0,75 - 1,5 mm ²) | WWZ-Mecal-16-18-EVS | 121586-5217 |
| Contact / Socket | Designation | Order No. (to be mentioned on order) |
| 192900-0000 (0,75 - 1,5 mm ²) | WWZ-Mecal-16-18-EVS | 121586-5217 |

Contact Extraction Tool



| Description | Order No. |
|--|-------------|
| Trident Extraction Tool | 192922-1450 |
| Wire Insulation Stripping length: 4,5 mm | |

Crimp and assembly Tools for press in contacts



| Basic - Hand Crimp Tool | Order No. |
|-------------------------|--------------|
| M22520-1-01 | 995-0001-585 |
| Turret | 120190-0163 |



| | |
|--------------------|--------------|
| Insertion Tool | |
| CIT-APD 16-TIP | 317-8648-008 |
| Hand Lever - Press | |
| CHPZ-240 | 121586-0081 |
| Ragged Tool | 192990-7600 |