chanhvinh.com

cannon

APD Series

ISO 15170 Derived Connectors



ITT

chanhvinh.com

We Connect

When it matters most

For more than a century, ITT Cannon has developed innovative interconnect solutions for the world's harshest environments. With facilities in the United States, Germany, Italy, Mexico, China and Japan, each with its unique strengths, we offer our customers interconnect solutions that are truly Engineered for Life.

In addition to this truly global footprint, we offer highly specialized, segmented industry expertise. We have a proven track record as an industry leader in harsh-environment applications. This has equipped us with the knowledge needed to continue to produce the most resilient, reliable connectors for our customers' most challenging conditions.

Interconnect solutions for the harshest environments.

cannon

The ITT Cannon difference

- Global capabilities & local support
- Proven application expertise
- A century of interconnect leadership
- A committed innovator & business partner

About ITT

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life. Founded in 1920, ITT is headquartered in Stamford, Connecticut, with employees in more than 35 countries and sales in a total of approximately 125 countries. For more information, visit www.itt.com.



chanhvinh.com

cannon

APD Example Applications



Agriculture



Truck



Bus



Forestry



Construction



Recreation



Mining



Specialty

Dimensions shown in mm
Specifications and dimensions subject to change

ITT

chanhvinh.com

Table of contents

APD Introduction 5

APD Overview 6

APD 1-2-way 7-23

APD 4-7-way..... 24-40

APD Sensor Connectors..... 41-42

APD 19-way..... 43-52

APD 37 & 51-way 53-65

APD PCB Versions..... 66

APD Modular Interface..... 67

APM 4-way 68

APE 2-3-way 70

APC 2-6-way..... 72

APD Customized Solutions 75

Conversion Charts 76

Part Number Index 77-78

chanhvinh.com

Cannon APD / ISO 15170 Connectors



APD is a versatile range of full plastic direct, in-line and bulkhead connectors. The products were originally designed for the transportation, off-road and specialized vehicle markets meeting all typical demands of applications in this field. In the meantime APD is also the connector of choice in other areas as e.g. industrial applications that require harsh environment solutions while needing a product that is both, small in size and light in weight.

The APD series covers a wide range of 1 and 2-way power solutions up to 51-way interface connectors, special sensor or PCB type versions and a flexible platform for your customized solutions.

Based on the original DIN72585 standard – now replaced by ISO 15170 – this connector is an ideal solution whenever harsh environment requirements like resistance to engine, transmission or brake fluids, high sealing grades up to IP69K or vibration requirements have to be met. Please be aware that all mentioned connectors are not designed to be disconnected under load.

Complementing the APD range are several additional full-plastic circular and rectangular connectors engineered for harsh-environment applications. The APE, APM, and APC series offer small, lightweight solutions that meet the demanding requirements of today's off-road and specialized vehicle markets.

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Product Overview

APD / ISO 15170					
Series	1-way	2-way	4-way	6/7-way	Sensor style 1
Type	Plug / Receptacle Flange / Jam Nut / Snap-In	Plug / Receptacle Flange / Jam Nut / Snap-In	Plug / Receptacle Flange / Jam Nut	Plug / Receptacle Flange / Jam Nut	Receptacle
Contacts Materials	Copper alloy silver plated	Copper alloy silver plated	Copper alloy tin, silver, gold plated	Copper alloy tin, silver, gold plated	Copper alloy tin, silver, gold plated
Contact style	Machined	Machined	Stamped & Formed	Stamped & Formed Machined	Machined
Page Number	8-11	18-20	25-27	35-37	41

APD / ISO 15170					
Series	Sensor style 2	19-way	37-way	51-way	PCB
Type	Receptacle	Plug / Receptacle Flange / Jam Nut / Wire-to-wire	Plug / Receptacle Flange	Plug / Receptacle / Jam Nut	Receptacle
Contacts Materials	Copper alloy tin, silver, gold plated	Copper alloy tin, silver, gold plated	Copper alloy tin, silver, gold plated	Copper alloy tin, silver, gold plated	Copper alloy tin, silver, gold plated
Contact style	Machined	Stamped & Formed	Stamped & Formed Machined	Stamped & Formed Machined	Machined
Page Number	42	44	54-55	62	66

			
Series	APM	APE	APC
Type	Plug / Receptacle	Plug	Plug / Receptacle
Contacts Materials	Copper alloy, tin plated	Copper alloy, silver plated	Copper alloy, tin plated
Contact style	Stamped and Formed	Machined, Press-in	Stamped and Formed
Page Number	68-69	70-71	72-74

chanhvinh.com

APD Technical Data, High Power 1-way



The APD 1 / 2-way connectors are derived from ISO 15170 and adapted to applications requiring high power. These versions cover wire ranges from 16 mm² up to 50 mm² power and a power consumption up to 245A.

The combination of small size and high power make them an ideal solution for many applications.

Applications

- Tail lifts
- On Board Kitchen
- Power Supply for Antennas and Base Stations

Power Distribution in:

- Trucks
- Tractors

Electrical Data	
Operating Voltage	48 VDC*
Operating Current	see derating curve
Contact Resistance	0,4 mΩ max.
Voltage Proof	1000 VAC, 60 seconds
Insulation Resistance	10 MΩ min.

Mechanical Data	
Durability	50 Mating Cycles
Coupling Torque	2 Nm max.
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 (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, 100 m/s², 3 axis, 24h, RT (EN 60512)

Materials List	
Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Ag plated

*Further information available upon request.

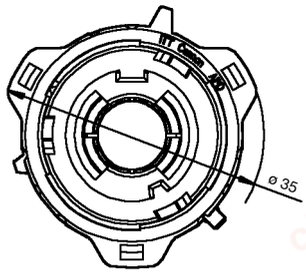
Dimensions shown in mm
Specifications and dimensions subject to change

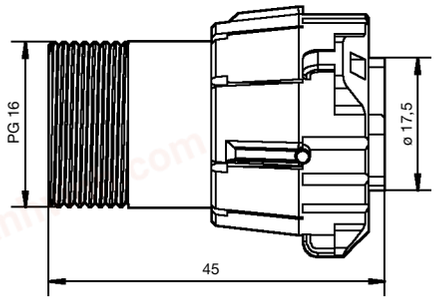
chanhvinh.com

APD High Power Plug, 1-way

High Power Plug, 1-way







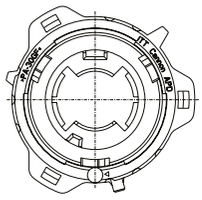
Order No.	Designation	Code	Color
121583-0012	APD-5BSH	5	blue (RAL 5012)
121583-0013	APD-6BSH	6	red (RAL 2002)
121583-0042	APD-7BSH	7	black (RAL 9005)

Packaging unit 100 pcs.
Socket crimp contacts see pages 12 and 13.
Accessories, see pages 14 and 15.
Note: Always use hex nut and cable seal.

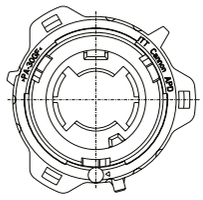
Coding, 1-way layouts

View on Mating Face

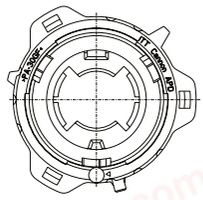
Note: the connectors offer both mechanical keying and visual coding by different colors.



Code 5 blue



Code 6 red



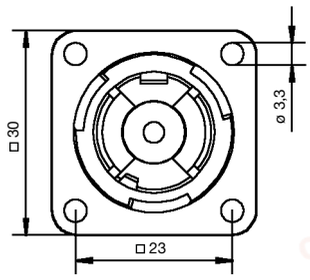
Code 7 black

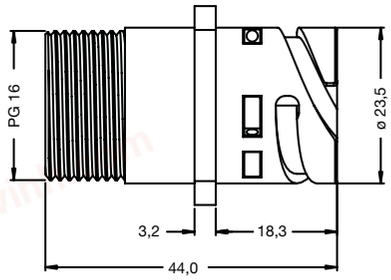
chanhvinh.com

APD High Power Flange Receptacle, 1-way

High Power Flange Receptacle, 1-way







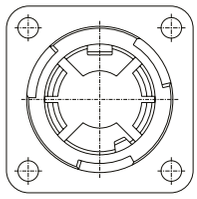
Order No.	Designation	Code	Color
121583-0014	APD-5APH	5	blue (RAL 5012)
121583-0015	APD-6APH	6	red (RAL 2002)
121583-0043	APD-7APH	7	black (RAL 9005)

Packaging unit 100 pcs.
Pin crimp contacts see pages 12 and 13.
Accessories, see pages 14 and 15.

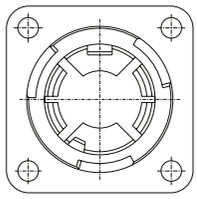
Coding, 1-way layouts

View on Mating Face

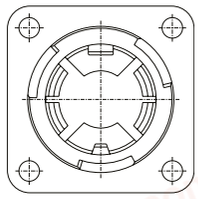
Note: the connectors offer both mechanical keying and visual coding by different colors.



Code 5 blue



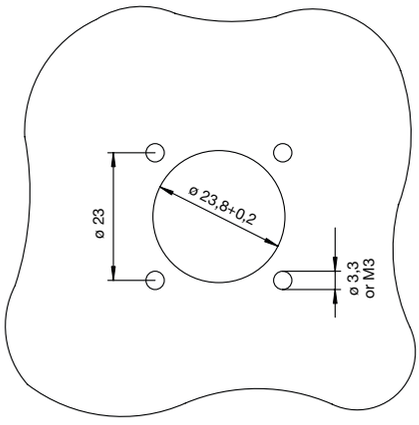
Code 6 red

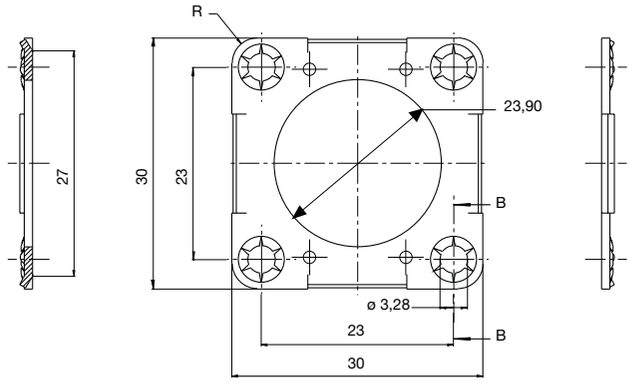


Code 7 black

Panel Cut Out

Flange for all Flange Receptacles





Order Number: 066-8516-006
Metal mounting flange for wall mounting of flange receptacles.

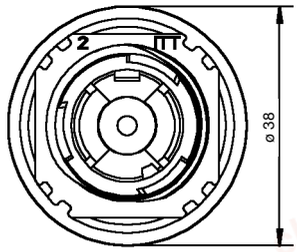
Dimensions shown in mm
Specifications and dimensions subject to change

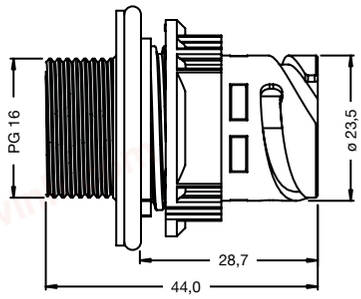
chanhvinh.com

APD High Power Jam Nut Receptacle, 1-way

High Power Jam Nut Receptacle, 1-way







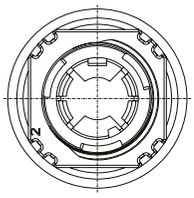
Order No.	Designation	Code	Color
121583-0016	APD-5CPH	5	blue (RAL 5012)
121583-0017	APD-6CPH	6	red (RAL 2002)
121583-0217	APD-7CPH	7	black (RAL 9005)

Packaging unit 100 pcs.
Pin crimp contacts see pages 12 and 13.
Accessories, see pages 14 and 15.
Note: Includes jam nut for wall thickness 1...4 mm. Always use hex nut and cable seal.

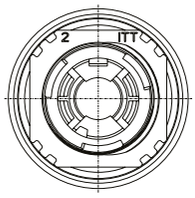
Coding, 1-way layouts

View on Mating Face

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



Code 5 blue



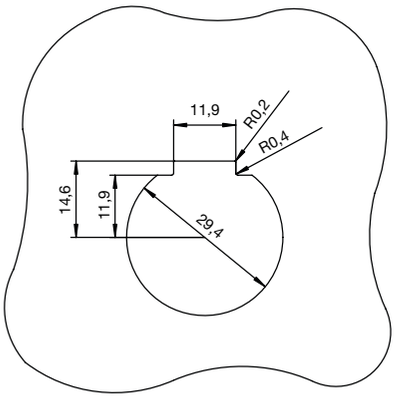
Code 6 red

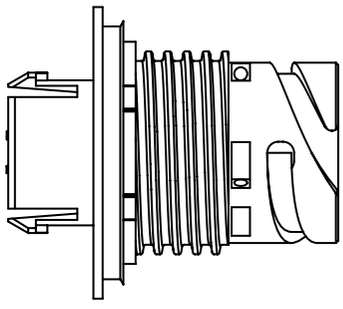


Code 7 black

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

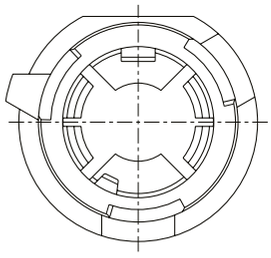
Designation	Order No.
for special wall thickness 2,0 - 5,0 mm	217-8516-001

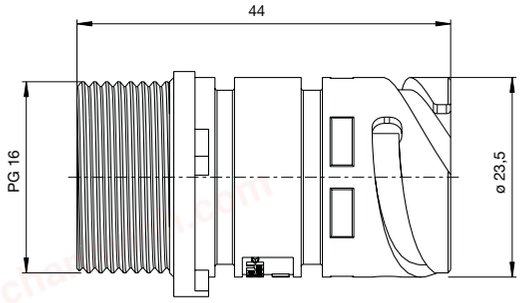
chanhvinh.com

APD High Power Snap-In Receptacle, 1-way

High Power Snap-In Receptacle, 1-way







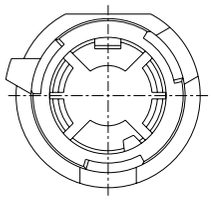
Order No.	Designation	Code	Color
249-8619-020	APD-5SPH	5	blue (RAL 5012)
249-8619-006	APD-6SPH	6	red (RAL 2002)
249-8619-005	APD-7SPH	7	black (RAL 9005)

Packaging unit 100 pcs.
Pin crimp contacts see pages 12 and 13.
Accessories, see pages 14 and 15.
Note: Always use hex nut and cable seal.

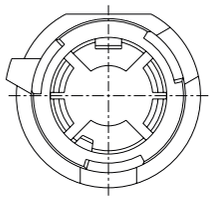
Coding, 1-way layouts

View on Mating Face

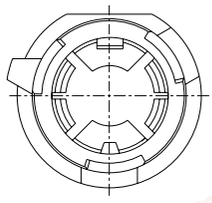
Note: the connectors offer both mechanical keying and visual coding by different colors.



Code 5 blue



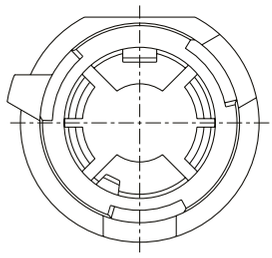
Code 6 red

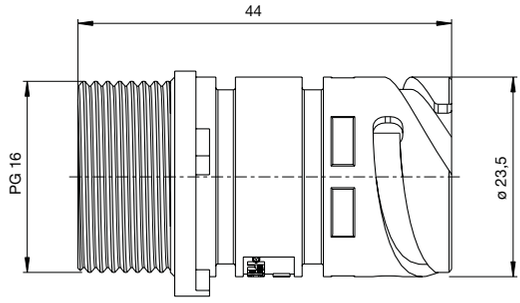


Code 7 black

Panel Cut Out

3D data for design of snap-in cut out available on request. Please consult factory.





Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD High Power 1-way, Contacts

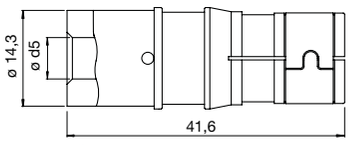
Machined Socket Crimp-Contacts, High Performance Copper, Silver plated

Order No.	AWG	Contact size	d5+0,15
031-8521-030 (16,00 mm²)		0	6,2
031-8521-010 (25,00 mm²)	4	0	7,6
031-8521-020 (35,00 mm²)	2	0	9,1
031-8646-015 (50,00 mm²)	with bunch	0	10,2

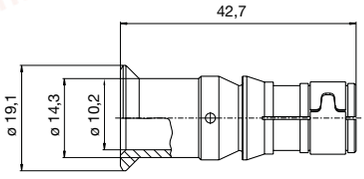
Packaging unit 100 pcs.



16...35 mm²



50 mm²



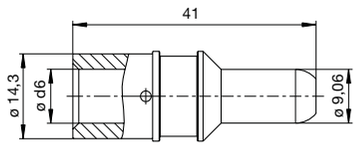
Machined Pin Crimp Contacts, High Performance Copper, Silver plated

Order No.	AWG	Contact size	d6+0,15
030-8614-030 (16,00 mm²)		0	6,2
030-8614-010 (25,00 mm²)	4	0	7,6
030-8614-020 (35,00 mm²)	2	0	9,1
030-8581-029 (50,00 mm²)	with bunch	0	10,2

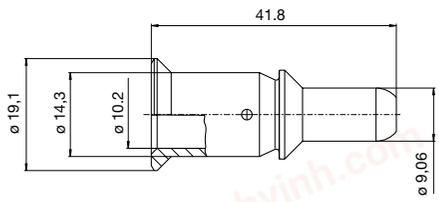
Packaging unit 100 pcs.



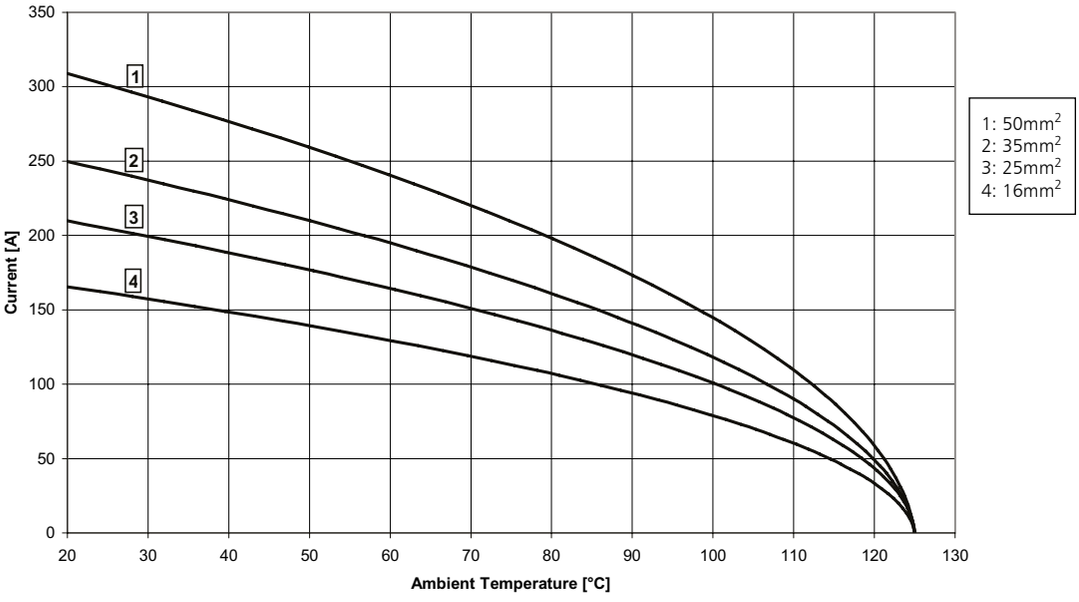
16...35 mm²



50 mm²



Derating Curve, High Performance Copper Contact



chanhvinh.com

APD High Power Finger Protected 1-way, Contacts



A new finger protected pin contact has been implemented for the APD High Power 1-way connector series.

Applications

- Tail lifts
- On Board Navigation
- Power Supply for Antennas and Base Stations

Power Distribution in:

- Trucks
- Tractors
- Hybrid and Electric Vehicles

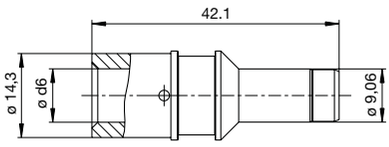
Machined Pin Crimp Contacts, High Performance Copper, Silver plated, Finger Protected

Order No.	AWG	Contact size	d6+0,15
120110-0229 (16,00 mm²)		0	6,2
120110-0220 (25,00 mm²)	4	0	7,6
120110-0221 (35,00 mm²)	2	0	9,1
120110-0222 (50,00 mm²)	with bunch	0	10,2

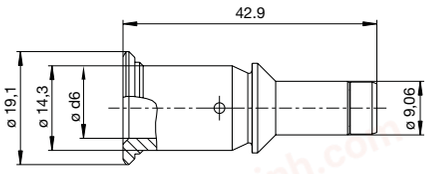
Packaging unit 100 pcs.



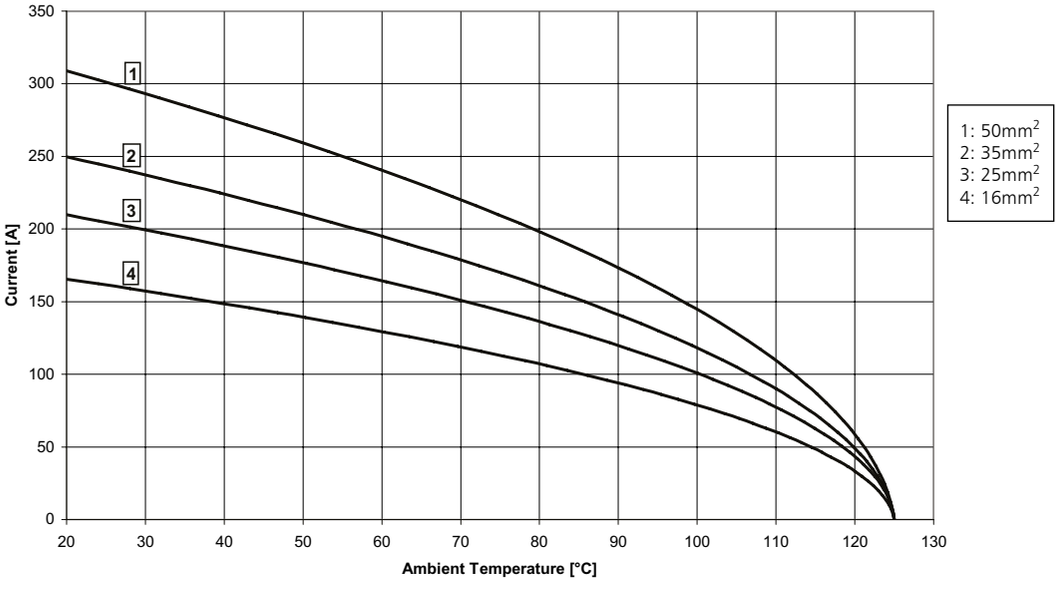
16...35 mm²



50 mm²



Derating Curve, High Performance Copper Contact, Finger Protected



Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

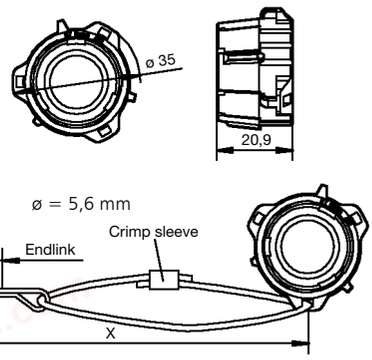
APD High Power 1-way, Contacts, Seals, Nut

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





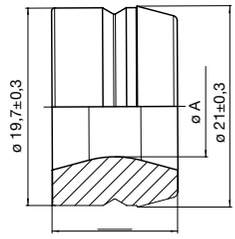
Cable Seal for Cable (in acc. to DIN 670722 FLY/ DIN 72551 FLRY)

High Power 1-way

Order No.	Insulation ø	ø A mm
351-8697-005	5,8 - 7,4	5,4
351-8697-014	7,4 - 8,4	6,5
351-8697-009	8,4 - 10,0	8,0
351-8697-001	10,4 - 12,0	9,8
351-8697-002	12,3 - 13,9	11,9
351-8697-003	14,2 - 15,8	13,8

Packaging unit 100 pcs.





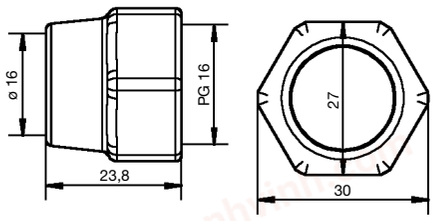
Hexagonal Nut

High Power 1-way

Order No.
217-8516-010

Packaging unit 100 pcs.





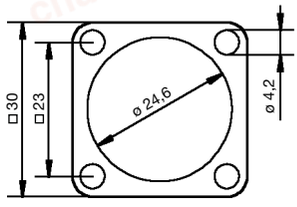
Flange Gasket

For Flange Receptacle, High Power 1-way

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

Packaging unit 100 pcs.
Nominal Width: 17





Adaptor for Flex Tube

For Flange Receptacle, High Power 1-way

Order No.
980-8672-010 (ø 17 mm)

Packaging unit 100 pcs.



90° Endbell

For 1-way Plug and Receptacle up to 25 mm^2 wire

Order No.
980-8672-004

Packaging unit 100 pcs.



ø max. = 17,4 mm
thread = PG 16

chanhvinh.com

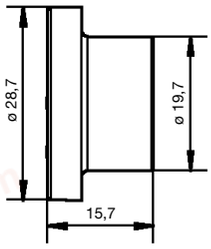
APD Accessories, 1-way

Dust Cap for Plug

Order No.
025-8636-005

Packaging unit 100 pcs.



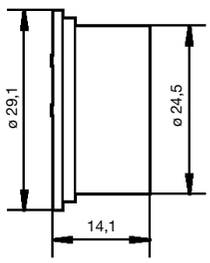


Dust Cap for Receptacle

Order No.
025-0480-000

Packaging unit 100 pcs.





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.

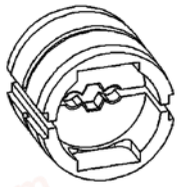


Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Tooling High Power, 1-way

Tooling for 1-way High Power Connectors

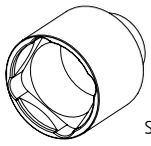


Contact - Pin / Socket	Crimp Die
16mm² - 50mm²	121586-5229

Optional locator for Pin Contacts - 121586-5232

Assembly Tools Jam Nut Receptacle

Square box spanner for torque moment wrench to fix the jam nut.

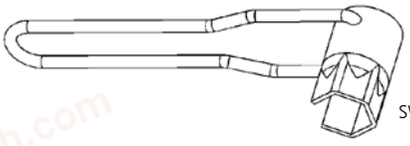


SW30

Designation	Order No.
SS627G	317-8649-034

Assembly Tools (Hexagonal Nut)

To fix the hexagonal fixing nut 217-8516-010.

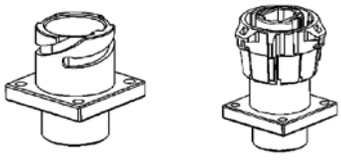


SW27

Order No.
980-8672-005

Torque: 2.5 ± 0.5Nm

Assembly and Torque Wrench Adapter

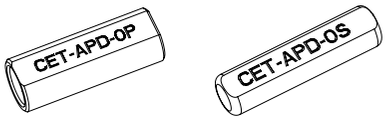


Designation	Order No.
MA-APD-1/ 2-P	248-8653-063
MA-APD-1/ 2-R	249-8619-010

1/4" adaption

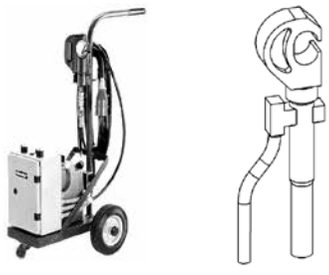
Contract Extraction Tool

Housing can not be reused.



Designation	Order No.
CET-APD-#OP	121586-5192
CET-APD-#OS	121586-5193

Crimp Tool



Designation	Designation	Order No.
Hydraulic, hand operated	HPW400U-ITT	121586-5257
Electro-hydraulic, 230 V AC operated	HP700EL-ITT	121586-5279

For detailed assembly instruction please see CAS 25023

chanhvinh.com

APD Technical Data, High Power 2-way

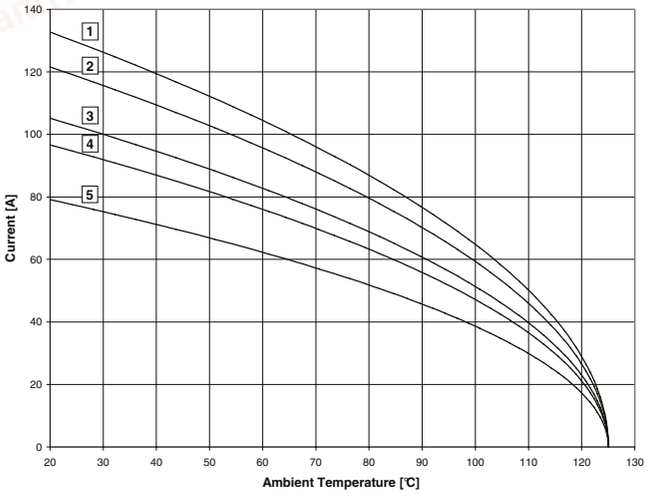
Electrical Data	
Operating Voltage	48 VDC*
Operating Current	see derating curve
Contact Resistance	2 mΩ max.
Voltage Proof	1000 VAC, 60 seconds
Insulation Resistance	10 MΩ min.

Mechanical Data	
Durability	50 Mating Cycles
Coupling Torque	2 Nm max.
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 (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)*

Materials List	
Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Ag plated

Derating Curve



1: 16mm²
2: AWG 6
3: 10mm²
4: AWG 8
5: 6mm²

*Further information available upon request.

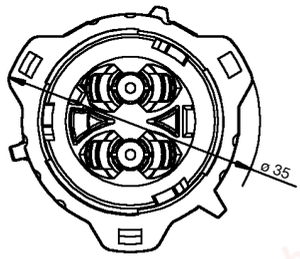
Dimensions shown in mm
Specifications and dimensions subject to change

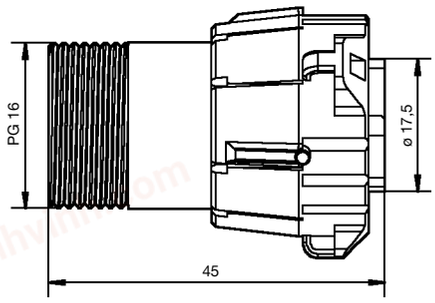
chanhvinh.com

APD High Power, Plug, Flange Receptacle 2-way

High Power Plug, 2-way







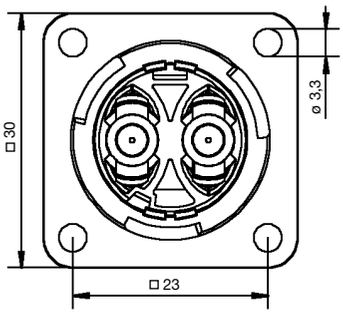
Order No.	Designation	Code	Color
121583-0083	APD-1BSH8-2-12	1	grey (RAL 7036)
121583-0025	APD-1BSH8-2	1	black (RAL 9005)
121583-0084	APD-1BSH8-2-14	1	blue (RAL 5012)

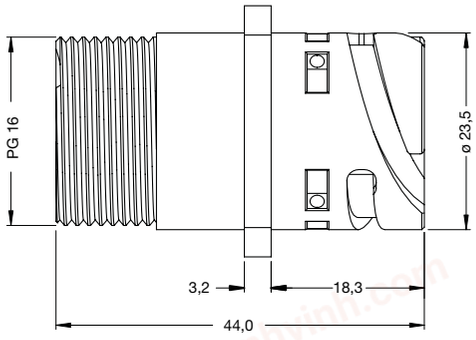
Packaging unit 100 pcs.
Socket Crimp contacts see page 21.

Accessories, see pages 21 and 22.
Note: Always use hext nut and cable seal.

High Power Flange Receptacle, 2-way







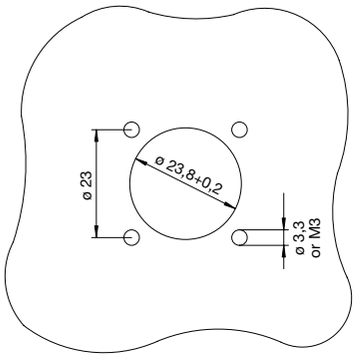
Order No.	Designation	Code	Color
121583-0026	APD-1APH8-2	1	black (RAL 9005)

Packaging unit 100 pcs.
Pin crimp contacts see page 21.

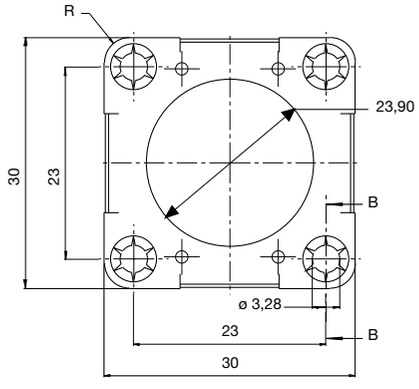
Accessories, see pages 21 and 22.
Note: Always include hex nut and cable seal.

Panel Cut Out

Flange for all Flange Receptacles









Note: Metal mounting flange for wall mounting of flange receptacles

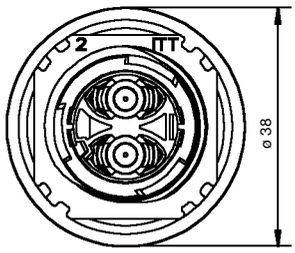
Order No.
066-8516-006

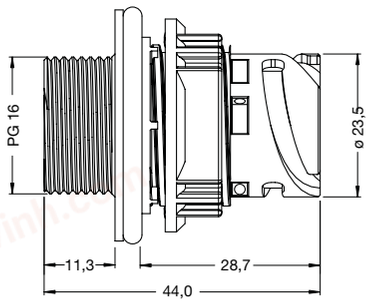
chanhvinh.com

APD High Power Jam Nut Receptacle, 2-way

High Power Jam Nut Receptacle, 2-way







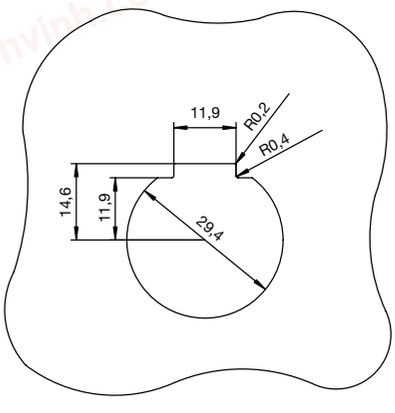
Order No.	Designation	Code	Color
121583-0085	APD-1CPH8-2-12	1	grey (RAL 7036)
121583-0027	APD-1CPH8-2	1	black (RAL 9005)
121583-0086	APD-1CPH8-2-14	1	blue (RAL 5012)

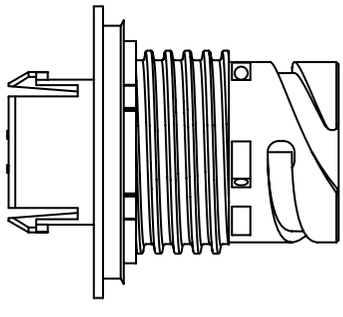
Packaging unit 100 pcs.
Pin crimp contacts see page 21.
Accessories, see pages 21 and 22.

Note: Includes jam nut for wall thickness 1..4 mm.
Always use hex nut and cable seal.

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

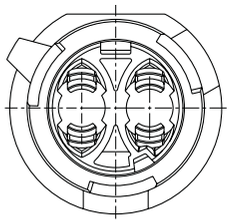
Dimensions shown in mm
Specifications and dimensions subject to change

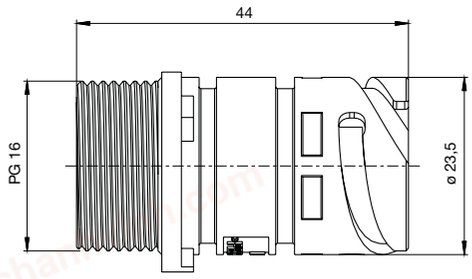
chanhvinh.com

APD High Power Snap-In Receptacle, 2-way

High Power Snap-In Receptacle, 2-way







Order No.	Designation	Code	Color
249-8619-007	APD-1SPH8-2	1	black (RAL 9005)

Packaging unit 100 pcs.
Pin crimp contacts see page 21.
Accessories, see pages 21 and 22.
Note: Always use hex nut and cable seal.

Panel Cut Out

3D data for design of snap-in cut out available on request. Please consult factory.

chanhvinh.com

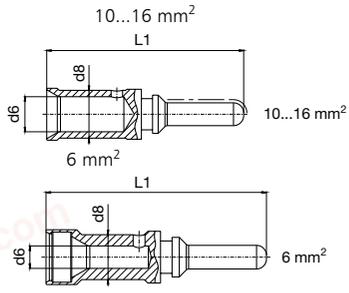
APD High Power 2-way, Contacts, Accessories

Machined Pin Crimp Contacts, Standard Silver Plated

Order No.	d6	d8	L1
430-8645-000 (6,00 mm²) *	3,4	6,8	33,4
430-8645-009 (10,00 mm²)	4,3	6,8	30,9
430-8645-003 (AWG 8)	3,8	6,8	30,9
430-8645-002 (AWG 6)	5,3	6,8	30,9
430-8645-007 (16,00 mm²)	5,5	7,5	30,9

Packaging unit 100 pcs.
* use individual wire seal or grommet



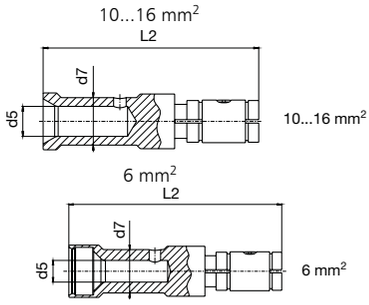


Machined Socket Crimp Contacts, Standard Silver Plated

Order No.	d5	d7	L2
031-8646-010 (6,00 mm²) *	3,4	6,8	33,4
031-8646-011 (10,00 mm²)	4,3	6,8	30,9
031-8646-002 (AWG 8)	3,8	6,8	30,9
031-8646-003 (AWG 6)	5,3	6,8	30,9
031-8646-001 (16,00 mm²)	5,5	7,5	30,9

Packaging unit 100 pcs.
* use individual wire seal or grommet





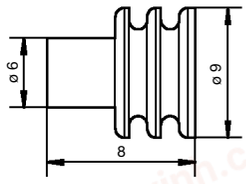
Individual Wire Seals

For High Power 2-way 6 mm² only

Designation	Order No.
16GN5824	121668-0035

wire insulation ø 4,3 - 4,8 mm / green





Cable Sealing Set

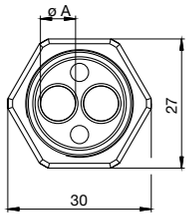
For High Power 2-way

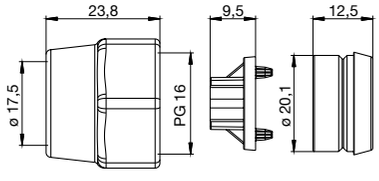
Set consists of:
Hexagonal Nut (1)
Compression Support Plate for Cable Seal (2)
Cable Seal for Cable (3)

Order No.	Wire Insulation ø	ø A
121583-1000	4,2 - 5,8	3,8
121583-1001	5,7 - 7,3	5,3
121583-1003	6,8 - 8,3	6,5
121583-1002	7,4 - 8,3	7,3

Packaging unit 100 pcs.







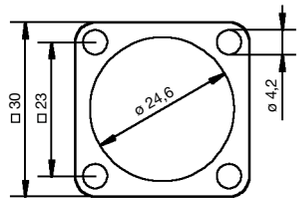
Flange Gasket

For Flange Receptacle, High Power 2-way

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

Packaging unit 100 pcs.





Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

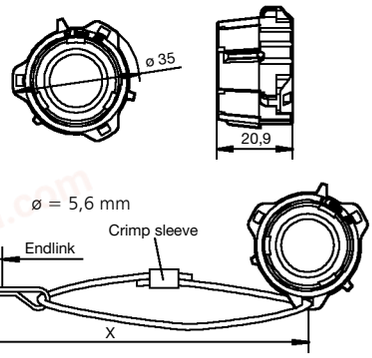
APD High Power 2-way, Accessories

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 No.
120110-0026* X~9cm

* for other lengths please consult the factory

Adaptor for Flex Tube

For 2-way Plug and Receptacle

Order No.
980-8672-010 (ø 17 mm)

Packaging unit 100 pcs.
Nominal Width: 17



90° Endbell

For 2-way Plug and Receptacle

Order No.
980-8672-004

Packaging unit 100 pcs.



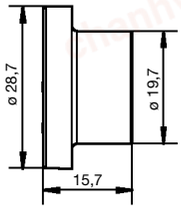
ø max. = 17,4 mm
thread = PG 16

Dust Cap for Plug

Order No.
025-8636-005

Packaging unit 100 pcs.



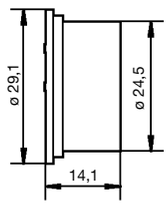


Dust Cap for Receptacle

Order No.
025-0480-000

Packaging unit 100 pcs.





Blind Socket

For 1 / 2 / 4 / 6 / 7-way

Order No.
120110-0217

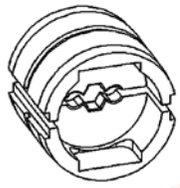
Packaging unit 100 pcs.
Note: All cavities closed, mates with 1-7-way APD versions.



chanhvinh.com

APD Tooling High Power, 2-way

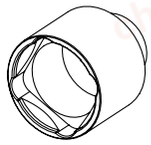
Crimp Die Tooling for 2-way High Power Connectors



Contact - Pin / Socket	Designator	Order No.
6mm², 10mm², AWG 8, AWG 6	CT120090-165	120090-0165
16mm²	CT120090-171	120090-0171

Assembly Tools Jam Nut Receptacle

Square box spanner for torque wrench to tighten the jam nut.

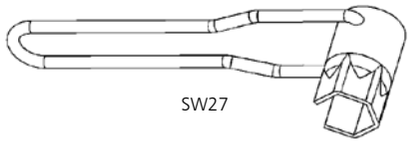


SW30

Order No.
317-8649-034

Assembly Tools Hexagonal Nut

To tighten the hexagonal fixing nut 217-8516-010.

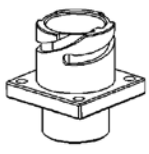


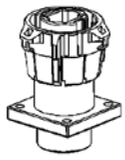
SW27

Designation	Order No.
SS627G	980-8672-005

Torque 2,5 +/- 0,5 Nm

Assembly and Torque Wrench Adapter

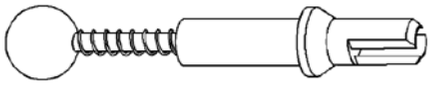




Designation	Order No.
MA-APD-1/2-P	248-8653-063
MA-APD-1/2-R	249-8619-010

1/4" adaption

Contract Extraction Tool



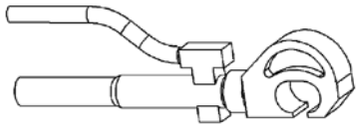
Designation	Order No.
CET- APD-2	121586-5149

for pin and socket contacts

Crimp Tool

Crimp Tool	Designation	Order No.
Hydraulic, hand operated:	HPW400U-ITT	121586-5257
Electro-hydraulic, 230 V AC operated	HP700EL-ITT	121586-5279
Hand Crimp Tool 6 / 10 / 16 mm²		121586-5244







Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Technical Data, 4-way



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 140 °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/s², 3 x 100h, RT and 120°C (ISO 15170-2)*

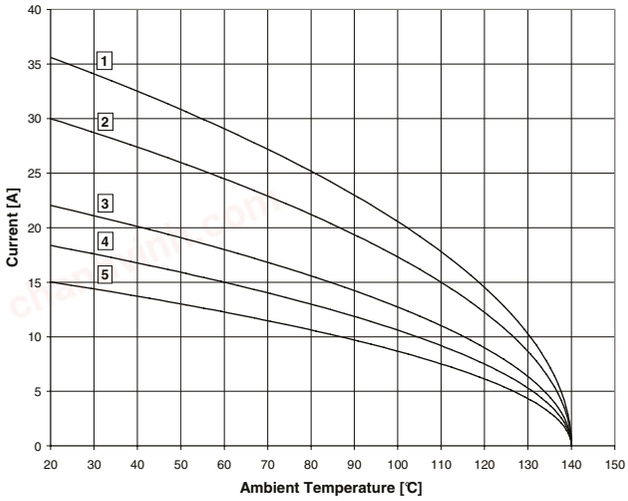
Materials List	
Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Ag plated

* Further information available upon request.

chanhvinh.com

APD Plug, 4-way

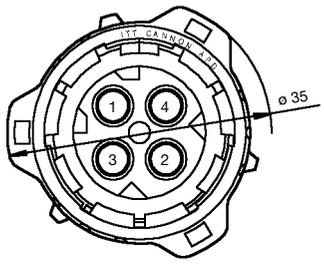
Derating Curve

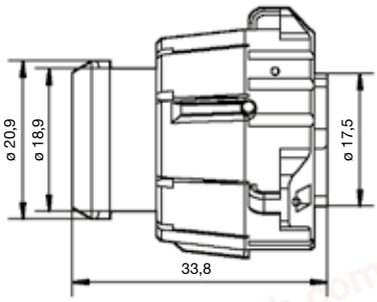


1: APK-_25-40/ 4,0mm²
2: APK-_25-25/ 2,5mm²
3: APK-_25-25/ 1,5mm²
4: APK-_25-10/ 1,0mm²
5: APK-_25-10/ 0,5mm²

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 31.
Accessories, see pages 31 and 32.

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.

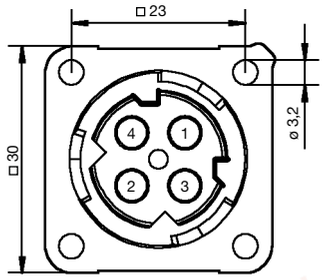
Dimensions shown in mm
Specifications and dimensions subject to change

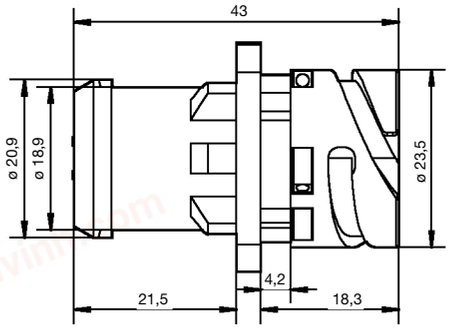
chanhvinh.com

APD Flange Receptacle, 4-way

Flange Receptacle, 4-way







Order No.	Designation	Code	Color
121583-0004	APD-1AP-K2	1	black (RAL 9005)
121583-0005	APD-2AP-K2	2	grey (RAL 7036)
121583-0006	APD-3AP-K2	3	green (RAL 6029)
121583-0007	APD-4AP-K2	4	blue (RAL 5012)

Packaging unit 100 pcs.
Pin crimp contacts see page 31.
Accessories, see pages 31 and 32.

Coding, 4-way layouts

View on Mating Face



Code 1 black



Code 2 grey



Code 3 green

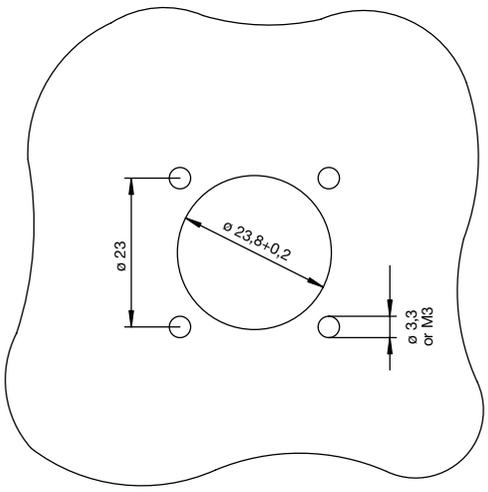


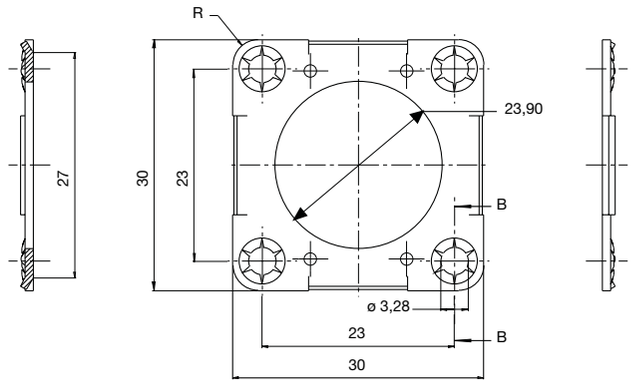
Code 4 blue

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

Panel Cut Out

Flange for all Flange Receptacles





Order No.
066-8516-006

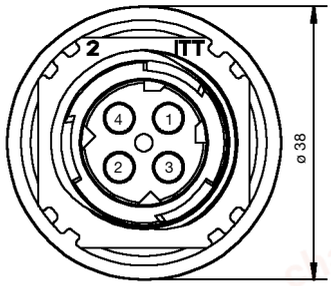
Note: Metal mounting flange for wall mounting of flange receptacle.

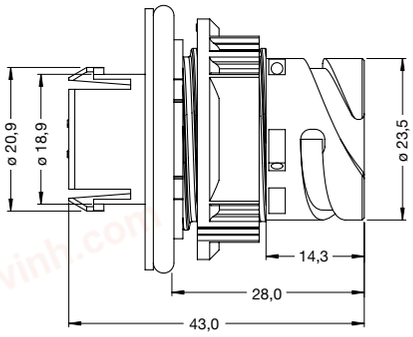
chanhvinh.com

APD Jam Nut Receptacle, 4-way

Jam Nut Receptacle, 4-way







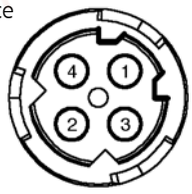
Order No.	Designation	Code	Color
121583-0008	APD-1CP-K2	1	black (RAL 9005)
121583-0009	APD-2CP-K2	2	grey (RAL 7036)
121583-0010	APD-3CP-K2	3	green (RAL 6029)
121583-0011	APD-4CP-K2	4	blue (RAL 5012)

Packaging unit 100 pcs.
Pin crimp contacts see page 31.
Accessories, see pages 31 and 32.

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

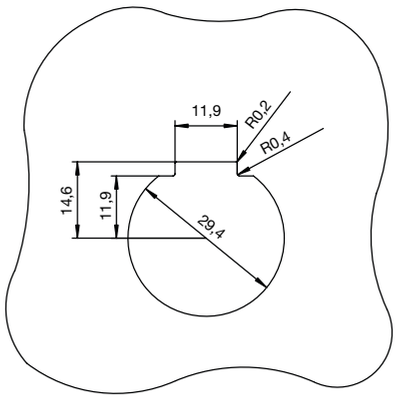


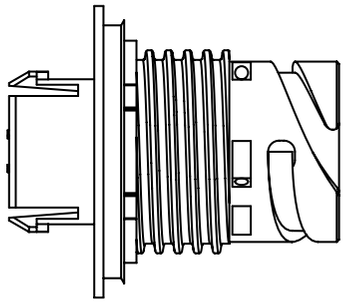
Code 4 blue

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

chanhvinh.com

APD Technical Data, 4-way High Voltage



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!

VDE
REG.–Nr. D587

Electrical Data	
Operating Voltage	500 V DC/AC*
Operating Current	see derating curve
Contact Resistance	5 mΩ max.
Voltage Proof	3500 VAC, 30 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 140 °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/s², 3 x 100h, RT and 120°C (ISO 15170-2)*

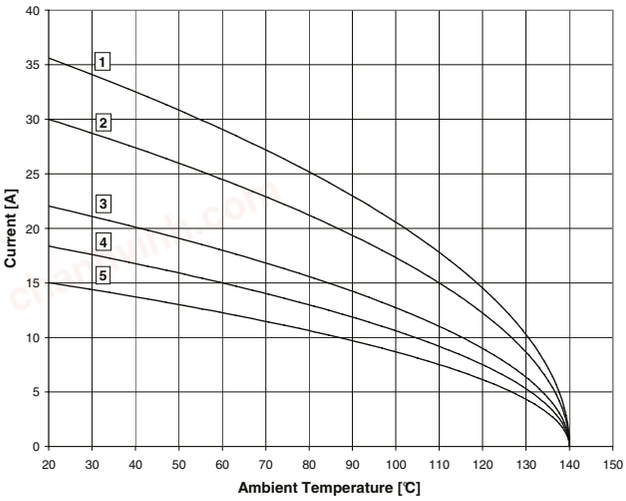
Materials List	
Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Sn or Au plated

* Further information available upon request.

chanhvinh.com

APD Plug, 4-way High Voltage

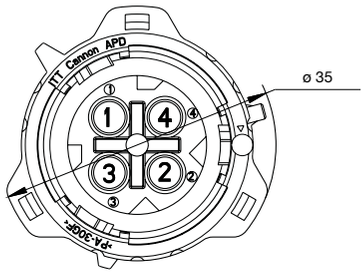
Derating Curve

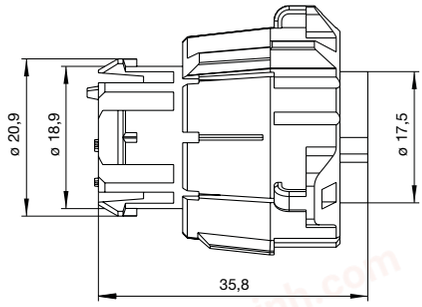


1: APK-_25-40/ 4,0mm²
2: APK-_25-25/ 2,5mm²
3: APK-_25-25/ 1,5mm²
4: APK-_25-10/ 1,0mm²
5: APK-_25-10/ 0,5mm²

Plug, 4-way High Voltage





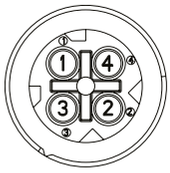


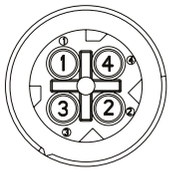
Order No.	Designation	Code	Color
121583-0213	APD-59BS-HV	5	orange (RAL 2003)
121583-0214	APD-69BS-HV	6	orange (RAL 2003)

Packaging unit 100 pcs.
Socket crimp contacts see page 31.
Accessories, see pages 31 and 32.

Coding, 4-way layouts High Voltage

View on Mating Face


Code 5 orange


Code 6 orange

Note: The connectors offer two mechanical keying.

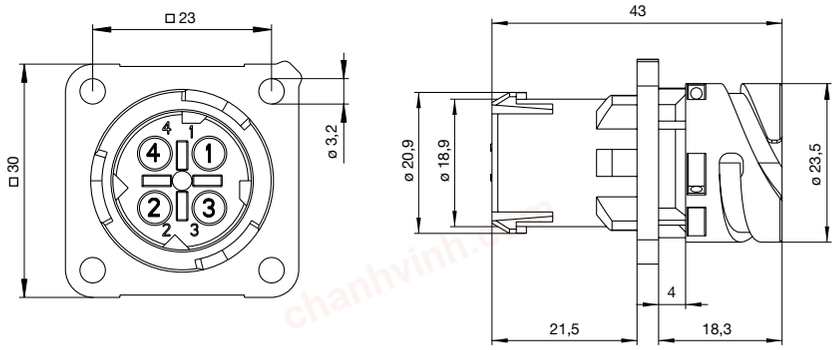
Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Flange Receptacle, 4-way High Voltage

Flange Receptacle, 4-way High Voltage



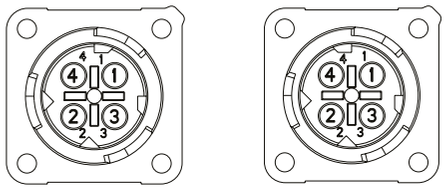


Order No.	Designation	Code	Color
121583-0215	APD-59AP-HV	5	orange (RAL 2003)
121583-0216	APD-69AP-HV	6	orange (RAL 2003)

Packaging unit 100 pcs.
Pin crimp contacts see page 31.
Accessories, see pages 31 and 32.

Coding, 4-way layouts High Voltage

View on Mating Face



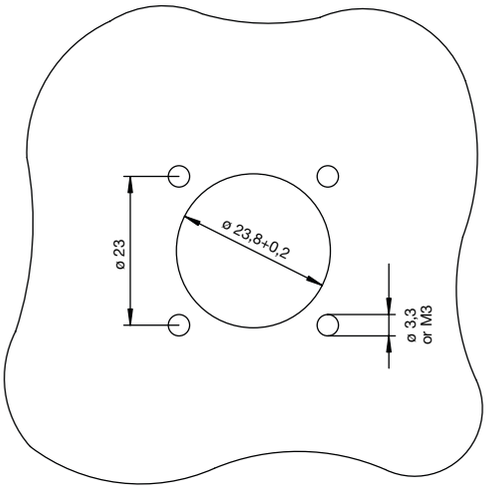
Code 5 orange

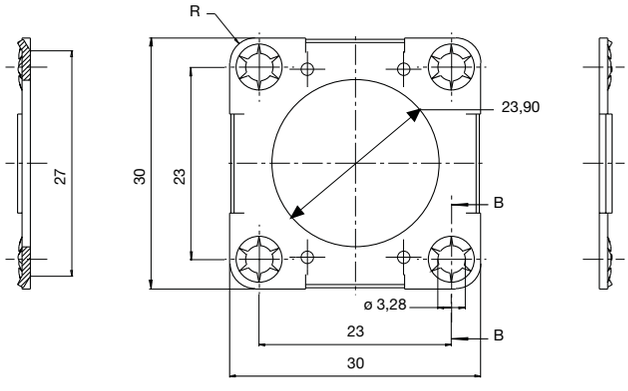
Code 6 orange

Note: The connectors offer mechanical keying.

Panel Cut Out

Flange for all Flange Receptacles





Order No.	
066-8516-006	Metal mounting flange for wall mounting of flange receptacle

chanhvinh.com

APD Contacts, Accessories 4-way

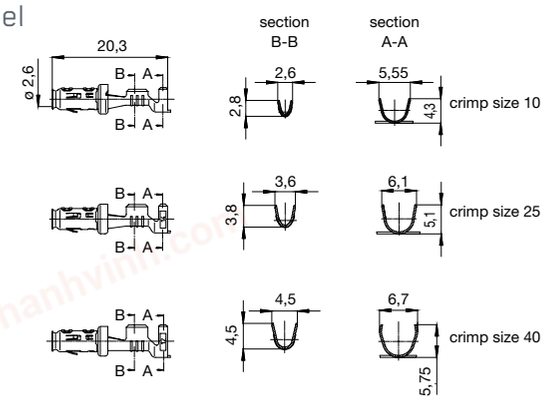
Socket Crimp-Contacts Standard Tinned, 3000 contacts per reel

Designation - Standard	Order No.
APK-SB25A10-002 (0,5 - 1,0 mm²)	121668-0125
APK-SB25A25-002 (1,5 - 2,5 mm²)	121668-0126
APK-SB25A40-002 (2,5 - 4,0 mm²)	121668-0127

Optional with Au-flash	Order No.
APK-SB25H10-002 (0,5 - 1,0 mm²)	121668-0022
APK-SB25H25-002 (1,5 - 2,5 mm²)	121668-0128
APK-SB25H40-002 (2,5 - 4,0 mm²)	121668-0124

Note: For versions with silver plating please consult factory.





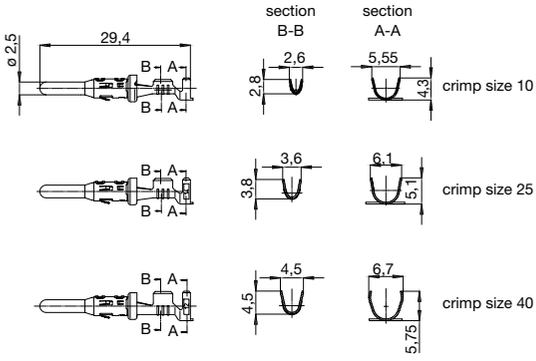
Pin Crimp-Contacts Standard Tinned, 3000 contacts per reel

Designation - Standard	Order No.
APK-PB25A10-002 (0,5 - 1 mm²)	121668-0026
APK-PB25A25-002 (1,5 - 2,5 mm²)	121668-0027
APK-PB25A40-002 (2,5 - 4,0 mm²)	121668-0028

Optional with Au-flash	Order No.
APK-PB25H10-002 (0,5 - 1 mm²)	121668-0021
APK-PB25H25-002 (1,5 - 2,5 mm²)	121668-0029
APK-PB25H40-002 (2,5 - 4,0 mm²)	121668-0025

Note: For versions with silver plating please consult factory





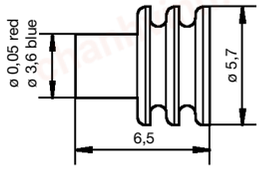
Individual Wire Seals

For all versions 4-way

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

Note: Packaging unit 5000 pcs.





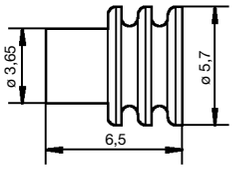
Wire Filler

For all versions 4-way

Designation	Order No.
15WH5823 white	121668-0034

Note: Packaging unit 5000 pcs.





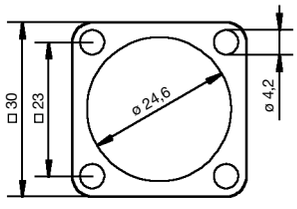
Flange Gasket

For Flange Receptacle, 4-way

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

Note: Packaging unit 5000 pcs.





Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

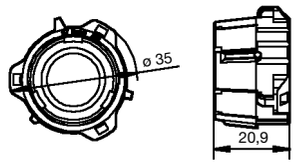
APD Accessories, 4-way

Sealing Cap for Receptacle

Designation	Order No.
APD-DP	121583-0021

Packaging unit 100 pcs.



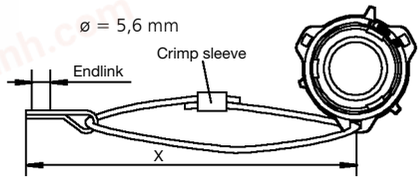


APD-DP with rope, end link and eyelet

X = Total rope length upon request

Order No.
120110-0026* X~9cm

* for other lengths please consult the factory

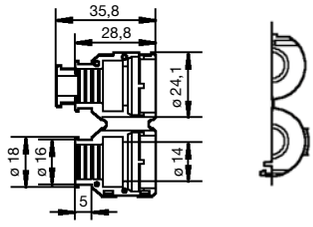


Straight Endbell for Flex Tube

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

Packaging unit 100 pcs.



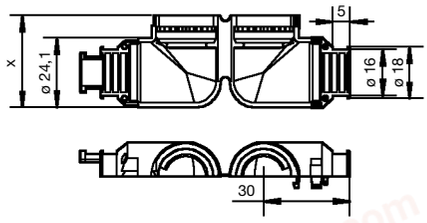


90° Endbell for Flex Tube

Order No.	Height x
058-8578-106 (ø 8,5 mm)	24
058-8578-101 (ø 8,5 mm)	32
058-8578-103 (ø 10,0 mm)	32
058-8578-105 (ø 11,0 mm)	32

Packaging unit 100 pcs.



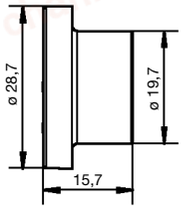


Dust Cap for Plug

Order No.
025-8636-005

Packaging unit 100 pcs.



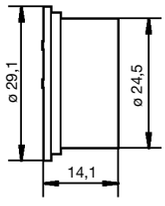


Dust Cap for Receptacle

Order No.
025-0480-000

Packaging unit 100 pcs.





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.



chanhvinh.com

APD Tooling, 4-way

Hand Tool for formed (stamped contacts)

Contact - Pin / Socket	Designation	Order No.
APK-SB25AXX-002 (0,5 - 4,0 mm^2)	CHT-APK-25-002-Seal	121586-5242



Crimp Machine Tool for formed (stamped contacts) (Mini Applicator)

Contact - Pin / 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 Extraction Tool

Order No.	Designation
121086-3278	CET-APK25



Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Technical Data, 6/7-way



APD 6/7-way connectors are a derivate 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/s², 3 x 100h, RT and 120°C (ISO 15170-2)*

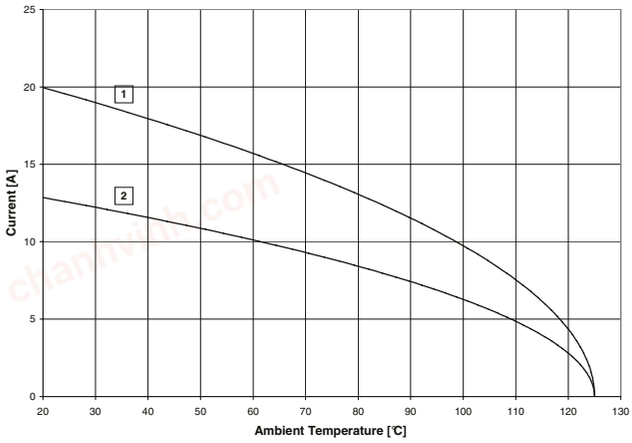
Materials List	
Housing Parts	PBT GF
Sealing Parts	HNBR (alternative FKM)
Coupling Nut	PA 66 GF
Contacts	Copper Alloy, Sn, Ag or Au plated*

* Further information available upon request.

chanhvinh.com

APD Plug, 6 /7-way

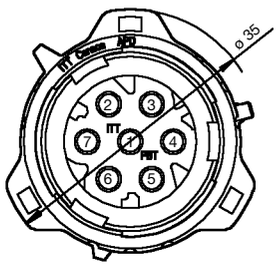
Derating Curve

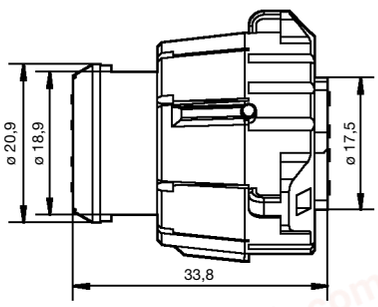


1: 1,5mm²
2: 0,5mm²

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 38.

Accessories, see pages 38 and 39.
*contact cavity 1 closed

Coding, 6/7-way layouts



6-way



7-way

Dimensions shown in mm
Specifications and dimensions subject to change

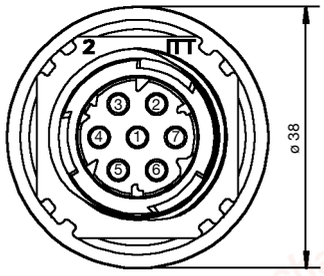
chanhvinh.com

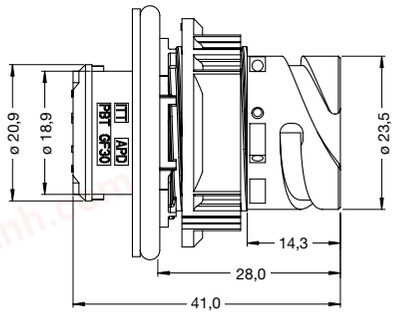
APD Jam Nut Receptacle, 6/7-way

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)

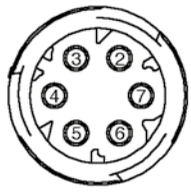
Packaging unit 100 pcs.

* Contact cavity 1 closed

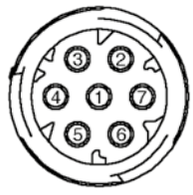
Jam Nut Receptacle

6/7-way for crimp press-in contacts

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



6-way



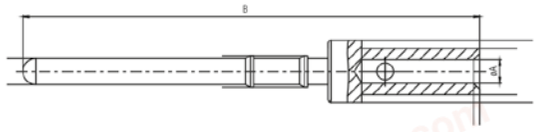
7-way

Press-in Crimp Contact

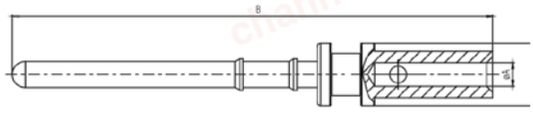
For Flange and
Jam Nut Receptacle



Designation	ø A	B	Crimp Range	Plating	Order No.
Without O-Ring	1.4	27.1	0.35-0.75mm²	Tin	330-8672-019
Without O-Ring	1.75	27.1	0.75-1.5mm²	Tin	330-8672-021
With O-Ring	1.4	28.5	0.35-0.75mm²	Tin	330-8672-024
With O-Ring	1.75	28.5	0.75-1.5mm²	Tin	330-8672-025
With O-Ring	1.4	28.5	0.35-0.75mm²	Gold	330-8672-028
With O-Ring	1.75	28.5	0.75-1.5mm²	Gold	330-8672-027



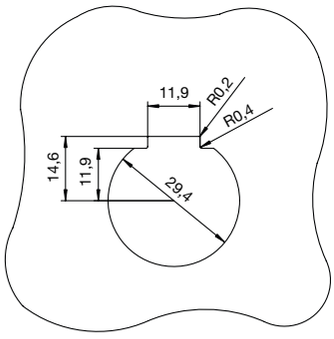
Without O-Ring



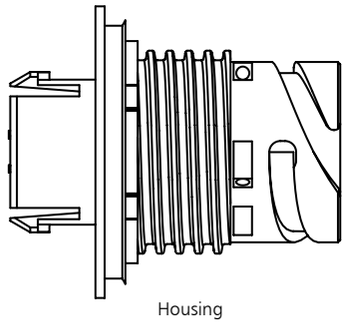
With O-Ring

Panel Cut Out

Flange for all Flange Receptacles



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



Housing



O-ring



Jam Nut

Jam Nut, special

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

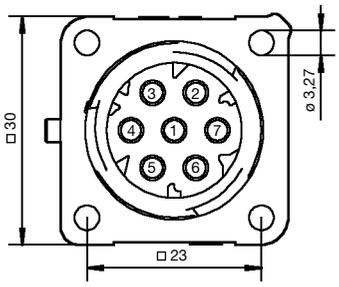
chanhvinh.com

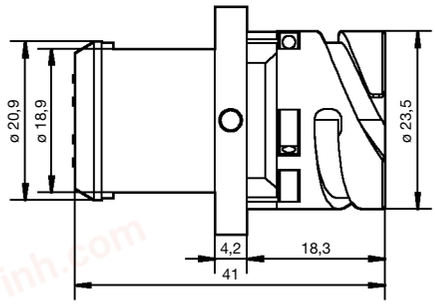
APD Flange Receptacle, 6/7-way

Flange Receptacle

6/7-way for standard contacts







	Order No.	Designation	Code	Color
7-way	121583-0020	APD-1AP7	1	black (RAL 9005)
7-way	121583-0212	APD-14AP7-EP	1	blue (RAL 5012)
6-way*	120110-0083	APD-1AP6	1	black (RAL 9005)

Packaging unit 100 pcs.
* Contact cavity 1 closed

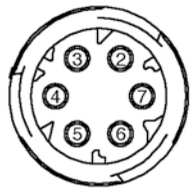
Flange Receptacle

6/7-way for crimp press-in contacts

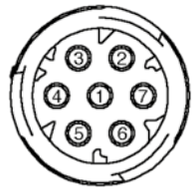
	Order No.	Designation	Code	Color
6-way*	120110-0020	APD-1AP6-EP	1	black (RAL 9005)
7-way	121583-0205	APD-1AP7-EP	1	black (RAL 9005)

Packaging unit 100 pcs.
* Contact cavity 1 closed

Pin crimp contacts see page 38.
Accessories, see pages 38 and 39.



6-way



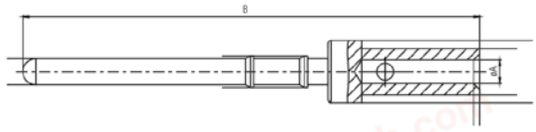
7-way

Press-in Crimp Contact

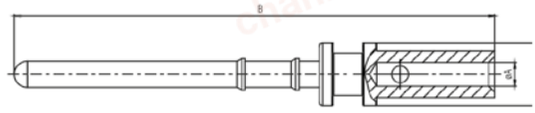
For Flange and
Jam Nut Receptacle



Designation	ø A	B	Crimp Range	Plating	Order No.
Without O-Ring	1.4	27.1	0.35-0.75mm²	Tin	330-8672-019
Without O-Ring	1.75	27.1	0.75-1.5mm²	Tin	330-8672-021
With O-Ring	1.4	28.5	0.35-0.75mm²	Tin	330-8672-024
With O-Ring	1.75	28.5	0.75-1.5mm²	Tin	330-8672-025
With O-Ring	1.4	28.5	0.35-0.75mm²	Gold	330-8672-028
With O-Ring	1.75	28.5	0.75-1.5mm²	Gold	330-8672-027



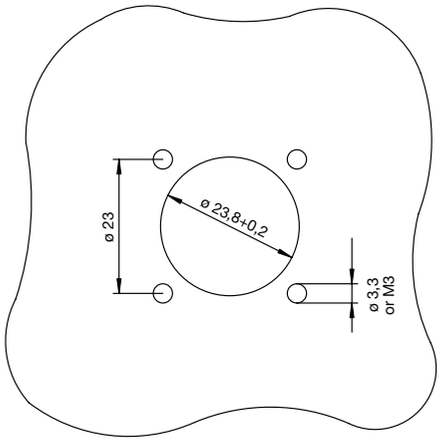
Without O-Ring

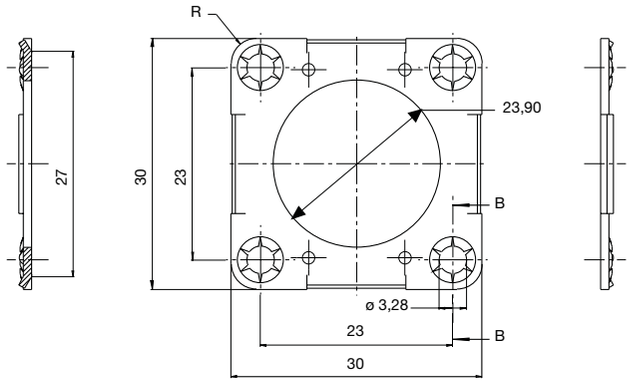


With O-Ring

Panel Cut Out

Flange for all Flange Receptacles





Order No.
066-8516-006

Metal mounting flange for wall mounting of flange receptacle

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

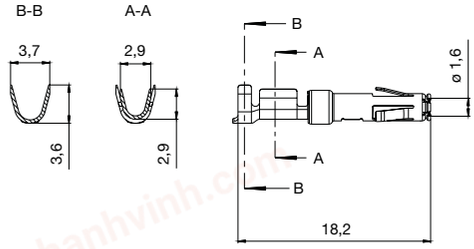
APD Contacts, Accessories, 6/7-way

Socket Crimp-Contacts 1,6 mm Standard

3000 contacts per reel

Designation	Order No.
0.32 - 0.5mm² - Tin plate - Loose Piece Bulk Pack	192900-0127
0.5 - 1.5mm² - Tin plate - Loose Piece Bulk Pack	192900-0003
0.32 - 0.5mm² - 0.8µm Au plate - Loose Piece Bulk Pack	192900-0451
0.5 - 1.5mm² - 0.8µm Au plate - Loose Piece Bulk Pack	192900-0450
0.32 - 0.5mm² - Tin plate - Reel	192900-0125
0.5 - 1.5 mm² - Tin plate - Reel	192900-0001
0.32 - 0.5mm² - 0.8µm Au plate - Reel	192900-0409
0.5 - 1.5mm² - 0.8µm Au plate - Reel	192900-0408

Loose Piece Bulk Pack is 100 pcs.

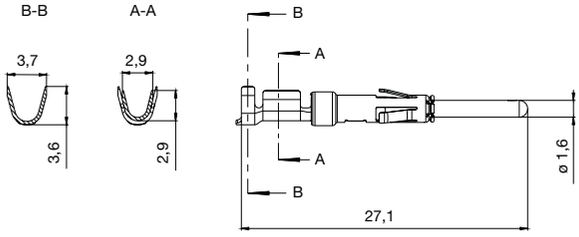


Pin Crimp-Contacts 1,6 mm Standard

3000 contacts per reel

Designation	Order No.
0.32 - 0.5mm² - Tin plate - Loose Piece Bulk Pack	192900-0126
0.5 - 1.5 mm² - Tin plate - Loose Piece Bulk Pack	192900-0002
0.32 - 0.5mm² - 0.8µm Au plate - Loose Piece Bulk Pack	192900-0447
0.5 - 1.5mm² - 0.8µm Au plate - Loose Piece Bulk Pack	192900-0446
0.32 - 0.5mm² - Tin plate - reel	192900-0124
0.5 - 1.5mm² - Tin plate - Reel	192900-0000
0.32 - 0.5mm² - 0.8µm Au plate - Reel	192900-0405
0.5 - 1.5mm² - 0.8µm Au plate - Reel	192900-0404

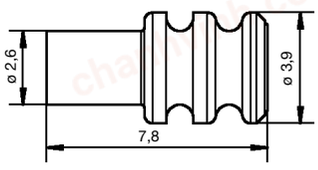
Loose Piece Bulk Pack is 100 pcs.



Individual Wire Seals

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

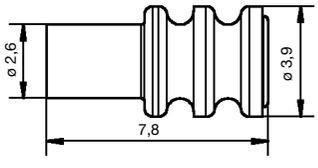




Wire Filler

Designation	Order No.
10WH3940	121667-0025



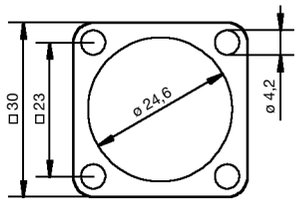


Gasket for all Flange Receptacles

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.



ITT

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

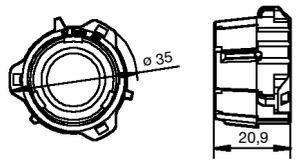
APD Accessories, 6/7-way

Sealing Cap for Receptacle

Designation	Order No.
APD-DP	121583-0021

Packaging unit 100 pcs.



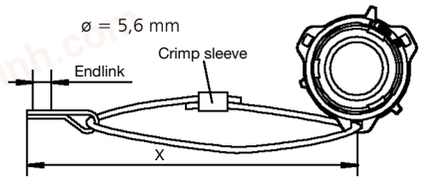


APD-DP with rope, end link and eyelet

X = Total rope length upon request

Order No.
120110-0026* X~9cm

* for other lengths please consult the factory

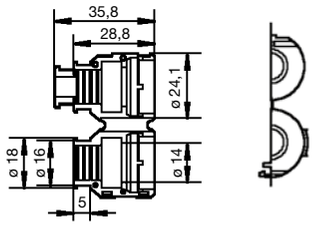


Straight Endbell for Flex Tube

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

Packaging unit 100 pcs.



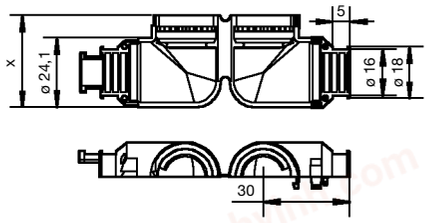


90° Endbell for Flex Tube

Order No.	Height x
058-8578-106 (ø 8,5 mm)	24
058-8578-101 (ø 8,5 mm)	32
058-8578-103 (ø 10,0 mm)	32
058-8578-105 (ø 11,0 mm)	32

Packaging unit 100 pcs.



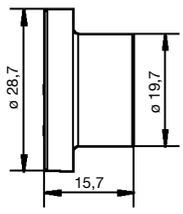


Dust Cap for Plug

Order No.
025-8636-005

Packaging unit 100 pcs.



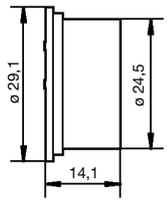


Dust Cap for Receptacle

Order No.
025-0480-000

Packaging unit 100 pcs.





Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Tooling for 6/7-way

Hand Tool for formed (stamped contacts)



Contact - Pin / Socket	Designation	Order No.
0,32-0,5mm²	CHT-Trident-16-18	121586-5236
0,5 - 1,5mm²	CHT-Trident-16-18	121586-5237

Crimp Machine Tool for formed (stamped contacts) (Mini Applicator)



Contact - Pin / Socket	Designation	Order No.
0,32-0,5mm²	WWZ-Mecal-20-26-EVS	121586-5239
0,75-1,5mm²	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	Order No.
CIT-APD 16-TIP	317-8648-008

Hand Lever - Press	Order No.
CHPZ-240	121586-0081

Ragged Tool	Order No.
Ragged Tool	192990-7600



chanhvinh.com

APD Sensor Connectors



APD Sensor connectors are special 1-4-way versions based on the ISO 15170 4-way layout.

They are designed to be directly adapted to sensor housing and typically customized versions.

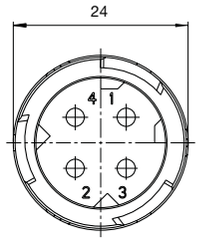
The offering includes several basic versions / variations for pressure sensoring and options for flow solder and crimp contacts.

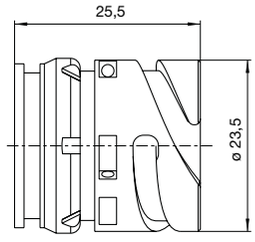
Typical Applications include:

- Pressure Sensoring (absolute and relative)
- Temperature Sensoring
- Humidity Sensoring

Sensor Connectors, Style 1







Order No.	Code	Contact Cavity closed no.	Color
248-8653-031	1	3 + 4	black (RAL 9005)
248-8653-053	2	3 + 4	grey (RAL 7036)
248-8653-105	1	4	black (RAL 9005)
248-8653-106	1	-	black (RAL 9005)
248-8653-134	4	2 + 4	blue (RAL 5012)

Consult factory for customized versions.
Note: Mate with APD 4-way plug.

Coding, Basic layouts*

View on Mating Face



Code 1 black



Code 2 grey



Code 3 green



Code 4 blue

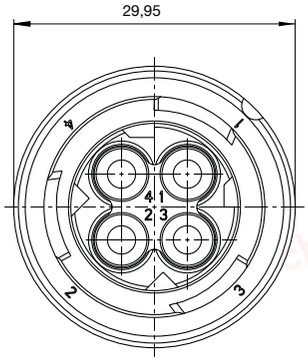
Note: The connectors offer both mechanical keying and visual coding by different colors.
* Versions with closed cavities are not shown.

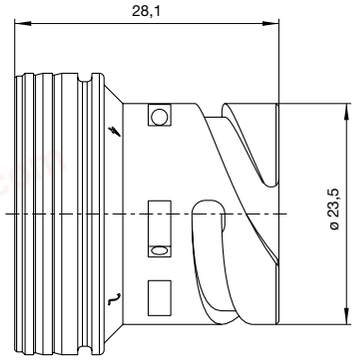
chanhvinh.com

APD Sensor Connectors

Sensor Connectors, Style 2







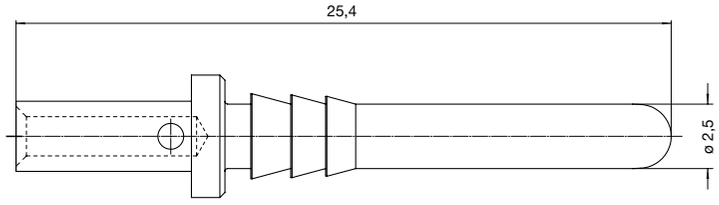
* Pictures and drawings shown are examples.

Consult factory for details. Products can be supplied with:

- Codings 1, 2, 3 and 4
- Partially closed cavities
- Ventilation pin for absolute pressure application

Contacts (machined)





- 2,5 mm contact diameter
- PCB versions available
- Press-in types

Order No.	Plating	Crimp Wire Size
120110-0013	Tin	0,15 - 0,38mm²
120110-0011	Tin	0,5 - 1,0mm²
120110-0014	Tin	0,75 - 1,5mm²
120110-0242	Gold	0,15-0,38mm²
120110-0241	Gold	0,5-1,0mm²

chanhvinh.com

APD Technical Data, 19-way



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:

- 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	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 + 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/s², 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*

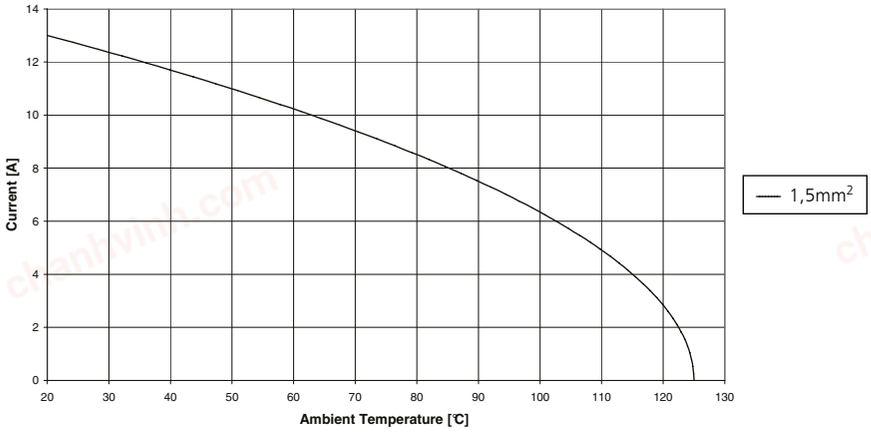
* Further information available upon request.

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

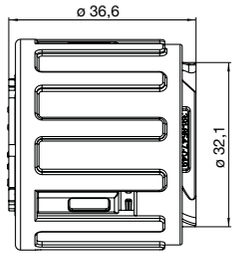
APD Plug, 19-way

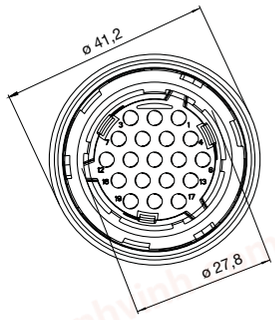
Derating Curve



Plug, 19-way



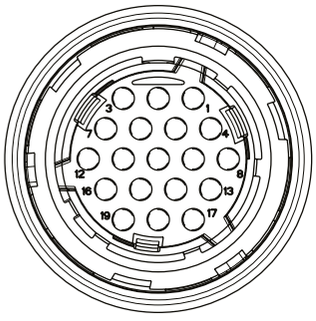




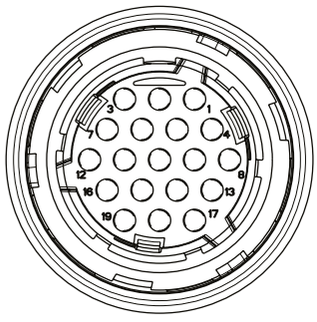
Order No.	Designation	Code	Color
121583-0119	APD-1BS19S	1	black (RAL 9005)
121583-0121	APD-2BS19S	2	grey (RAL 7036)
121583-0123	APD-3BS19S	3	green (RAL 6029
121583-0125	APD-4BS19S	4	blue (RAL 5012)

Packaging unit 50 pcs.
Note: Each packaging unit includes one release tool.
Socket crimp contacts see page 48.
Accessories, see pages 49, 50, and 51.

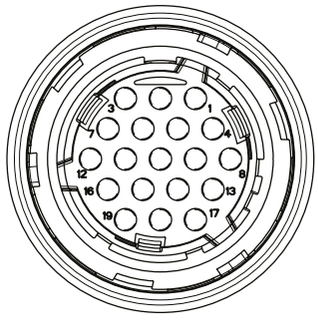
Coding, 19-way layouts



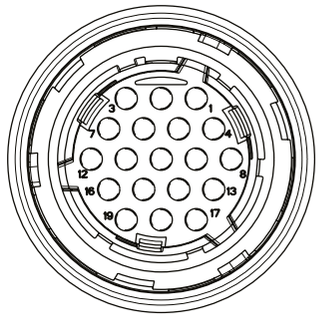
Code 1 black



Code 2 grey



Code 3 green



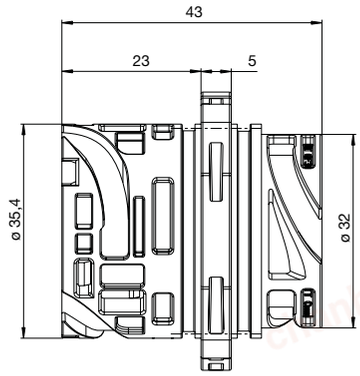
Code 4 blue

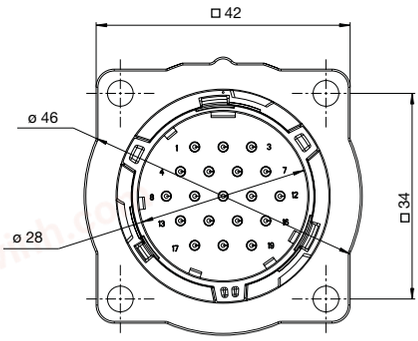
chanhvinh.com

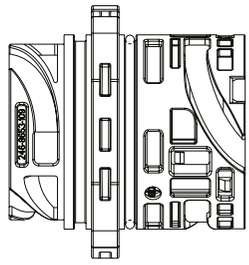
APD Flange Receptacle, 19-way

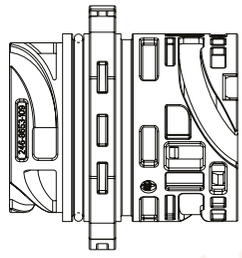
Flange Receptacle, 19-way











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:

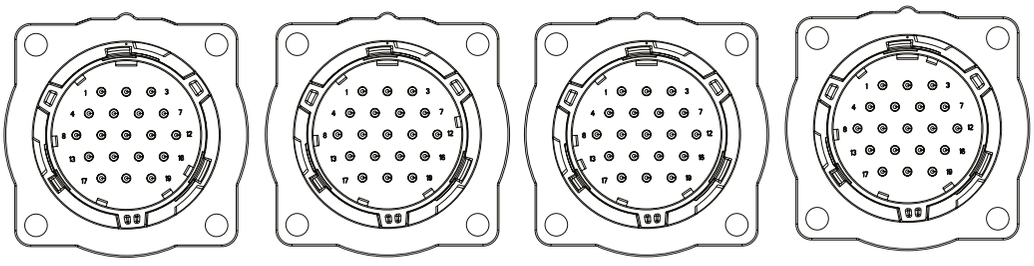
Order No.	Designation	Code	Color
121583-0127	APD-1AP19S-R	1	black (RAL 9005)
121583-0129	APD-2AP19S-R	2	grey (RAL 7036)
121583-0131	APD-3AP19S-R	3	green (RAL 6029
121583-0133	APD-4AP19S-R	4	blue (RAL 5012)

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)

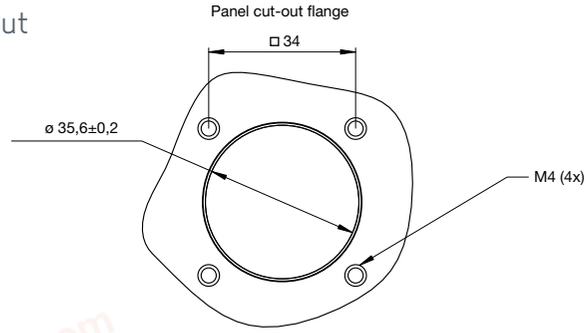
Packaging unit 50 pcs.
Note: Each packaging unit includes one release tool.
Pin crimp contacts see page 48.
Accessories, see pages 49, 50, and 51.

Coding, 19-way layouts



Code 1 black | Code 2 grey | Code 3 green | Code 4 blue

Panel Cut Out



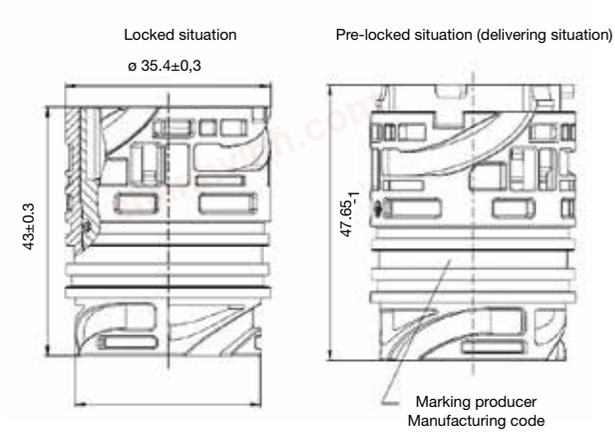
Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Wire-to-Wire Receptacle, 19-way

Wire-to-Wire Receptacle, 19-way

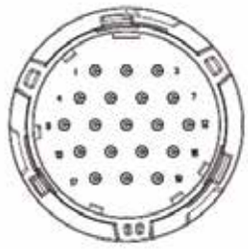




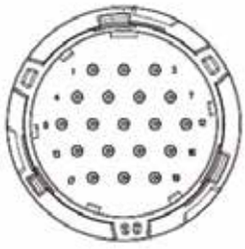
Order No.	Designation	Code	Color
121583-0135	APD-1BP19S	1	black (RAL 9005)
121583-0136	APD-2BP19S	2	grey (RAL7036)

*Other colours and coding possible

Coding, 19-way layouts



Code 1 black



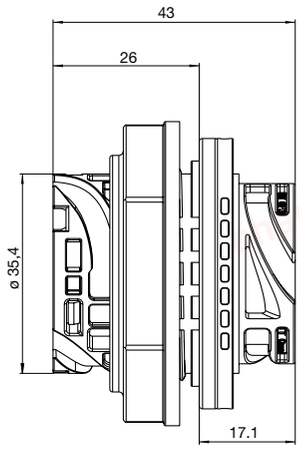
Code 2 grey

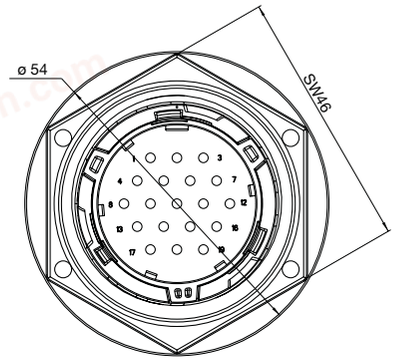
chanhvinh.com

APD Jam Nut Receptacle, 19-way

Jam Nut Receptacle, 19-way







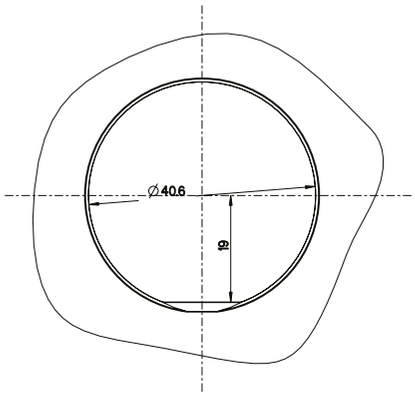
Order No.	Designation	Code	Color
Consult Factory	APD-1CP19S	1	black (RAL 9005)
Consult Factory	APD-2CP19S	2	grey (RAL 7036)
Consult Factory	APD-3CP19S	3	green (RAL 6029
Consult Factory	APD-4CP19S	4	blue (RAL 5012)

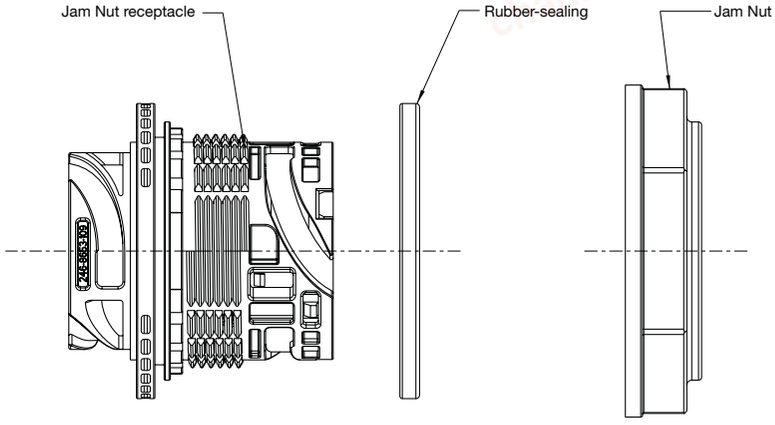
Packaging unit 50 pcs.
Note: Each packaging unit includes one release tool.
Pin crimp contacts see page 48.
Accessories, see pages 49, 50, and 51.

Coding, 19-way layouts

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

Panel Cut Out





Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

Contacts / Seals, 19-way

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 mm²	APK-SA16A07-002	121668-0221	APK-SA16A07-002-B	121668-0274
		0,75 - 1,5 mm²	APK-SA16A15-002	121668-0202	APK-SA16A15-002-B	121668-0276
	gold (0,8 µm)	0,35 - 0,75 mm²	APK-SA16G07-002	121668-0270	APK-SA16G07-002-B	121668-0278
		0,75 - 1,5 mm²	APK-SA16G15-002	121668-0272	APK-SA16G15-002-B	121668-0280
Pin contacts	tin	0,35 - 0,75 mm²	APK-PA16A07-002	121668-0252	APK-PA16A07-002-B	121668-0275
		0,75 - 1,5 mm²	APK-PA16A15-002	121668-0253	APK-PA16A15-002-B	121668-0277
	gold (0,8 µm)	0,35 - 0,75 mm²	APK-PA16G07-002	121668-0269	APK-PA16G07-002-B	121668-0279
		0,75 - 1,5 mm²	APK-PA16G15-002	121668-0271	APK-PA16G15-002-B	121668-0281

Machined Contacts

Contacts	Plating	Crimp Range	Single piece	
			Designation	Part number
Pin contacts	tin	0,3 - 0,6 mm²	APK-PA16A06-E	Consult Factory
	gold (0,8 µm)	0,3 - 0,6 mm²	APK-PA16G06-E	Consult Factory
		0,5 - 1,0 mm²	APK-PA16G10-E	Consult Factory
		1,0 - 1,5 mm²	APK-PA16G15-E	Consult Factory

Individual Wire Seals / Blind Seals

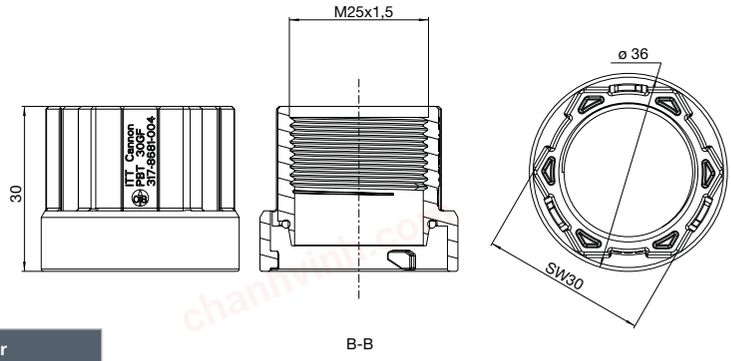
Description	Insulation Diameter	Color	Part number
Single Wire Sealing	1,2 - 1,6 mm	Red	121667-0024
	1,4 - 2,0 mm	Grey	121667-0022
	1,9 - 2,1 mm	Yellow	121667-0023
Blind Seal	1,4 - 2,0 mm	White	121667-0025

chanhvinh.com

APD Accessories, 19-way

Endbell, 19-way





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

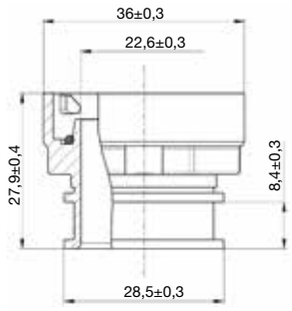
Endbell Adapter, 19-way

For the use of standard 90° / Straight conduit accessories

Order No.
044-8597-004*

* Can be used in combination with PN 980-8672-034 and 980-8672-035. Further adapters available upon request.

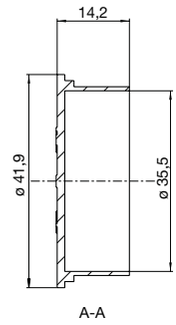




Dust Cap for Plug

Order No.
025-8636-053

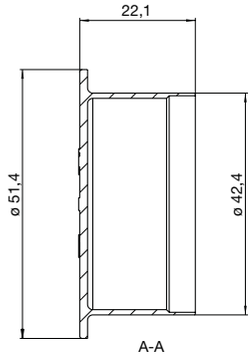




Dust Cap for Receptacle

Order No.
025-0487-000





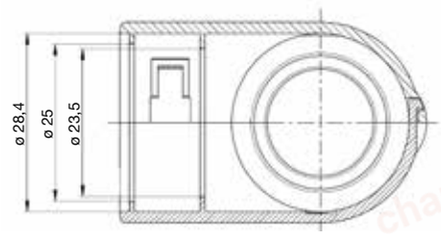
Dimensions shown in mm
Specifications and dimensions subject to change

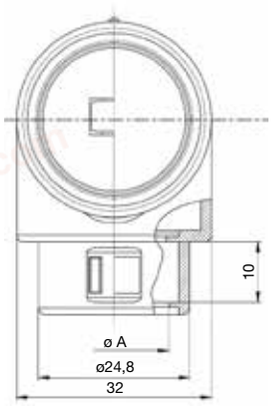
chanhvinh.com

APD Accessories 19-way

90° Endbell for Flex Tube







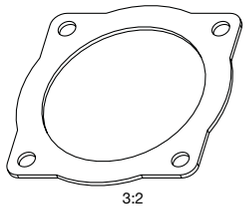
Order No.	Designation	Color	ø A	Nominal Dimension of Conduit
980-8672-034	90° Endbell Adapter	black	18	17
980-8672-035	90° Endbell Adapter	black	14	13

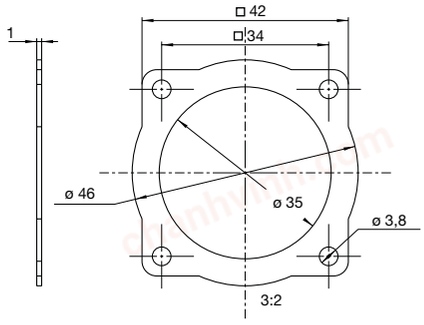
Packaging unit 100 pcs.

Flange Gasket, 19-way

Order No.
075-8566-003







chanhvinh.com

Tooling, 19-way

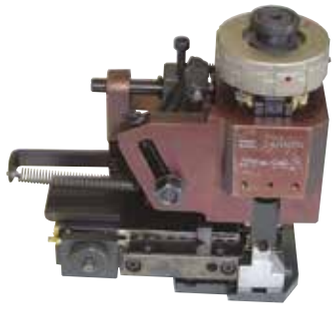
Hand Crimp Tool for Stamped and Formed Contacts

Contact	Hand Tool	Crimp Die
0,35 - 0,75 mm^2	121586-5156	121586-5260
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



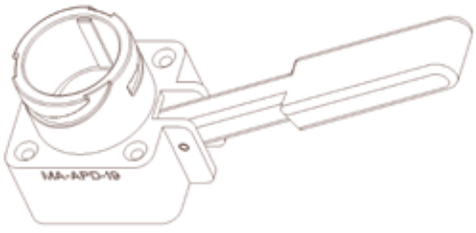
Support Tools, 19-way

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



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

Locking tool for 19-way plug connectors





chanhvinh.com

Tooling, 19-way

Hand Crimp Tool for Machined Contacts

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

Locator	Order No.
M225201/1-05	95-0001-507



Automatic Crimp Tooling for Machined 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 Machined Contacts

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



chanhvinh.com

APD Technical Data, 37-way

cannon





APD 37-way is a highly reliable, cost effective multi-pin connector with signal contacts (multi-layout power / signal on demand). It offers wire-to-wire and wire-to-board connection solutions. Derived from ISO 15170, the connector is dedicated for harsh environmental usage. Various customer specific designs (e.g. different coding) are possible.

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	20 Mating Cycles
Coupling Torque	4 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 + 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/s², 3 x 100h, RT and 120°C (ISO 15170-2)*

Materials List	
Housing Parts	PA 66 GF
Sealing Parts	FKM (alternative FVMQ)
Coupling Nut	PA 6 GF
Contacts	Copper Alloy, Au or Sn plated*

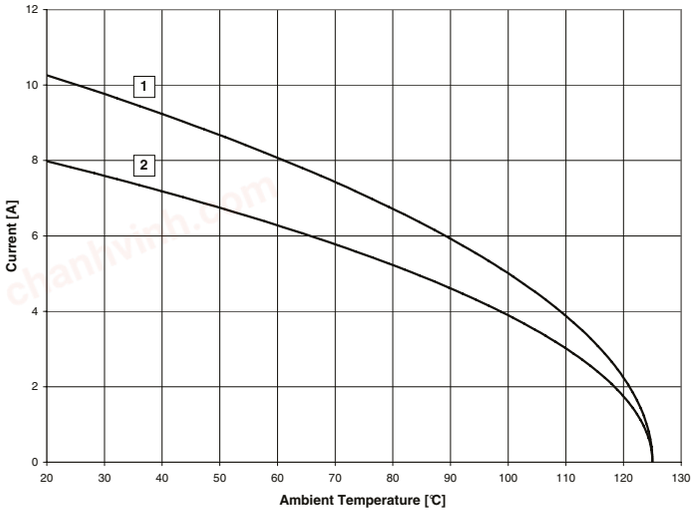
* Further information available upon request.

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Plug, 37-way

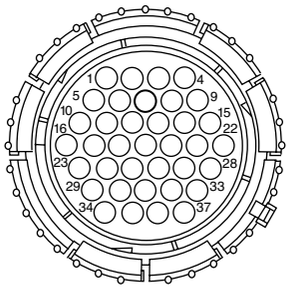
Derating Curve

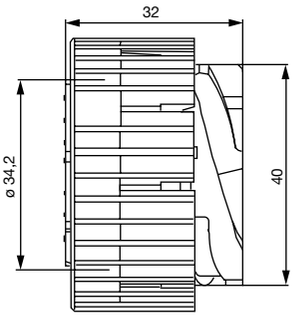


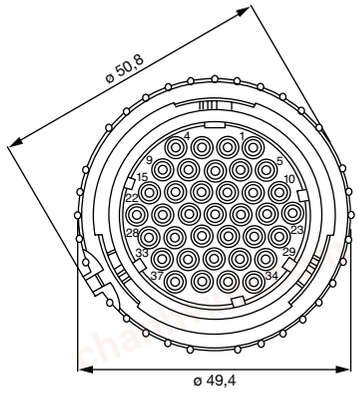
1: 1,0mm²
2: 0,75mm²

Plug, 37-way







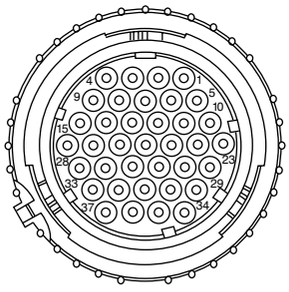


Order No.	Designation	Code	Color
121583-0058	APD-1BS37	1	black (RAL 9005)

Packaging unit 100 pcs.
Socket crimp contacts see page 56.
Accessories, see pages 56 and 57.

Coding 37-way layout

View on Mating Face



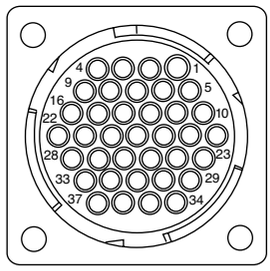
Note: Additional coding on demand.

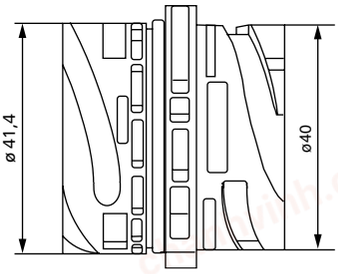
chanhvinh.com

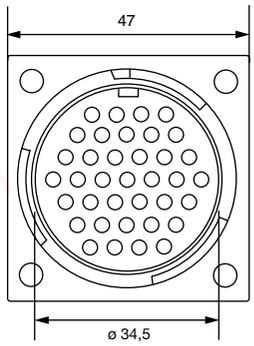
APD Flange Receptacle, 37-way

Flange Receptacle, 37-way









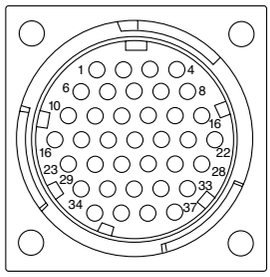
Order No.	Designation	Code	Color	Comment
249-8619-017	APD-1AP37-R	1	black (RAL 9005)	with O-ring
248-8653-026	APD-1AP37	1	black (RAL 9005)	without O-ring

Packaging unit 100 pcs.
Pin crimp contacts see page 56.

Accessories, see pages 56 and 57.
Note: Requires use of alignment disc.

Coding 37-way layout

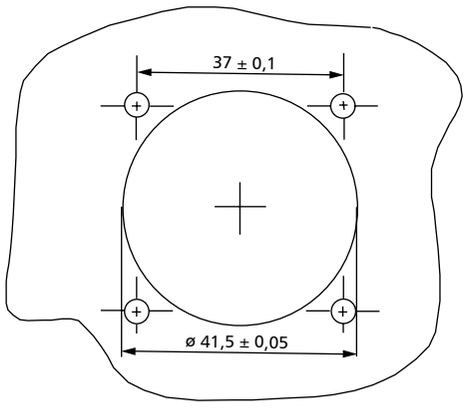
View on Mating Face

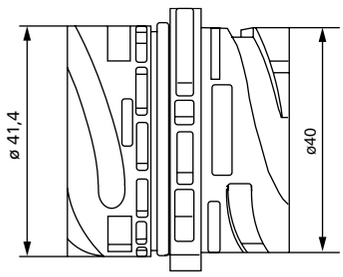


Note: Additional coding on demand.

Panel Cut Out

Flange for all Flange Receptacles





Note: Dimension if used as version with radial o-ring seal (249-8619-017).

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Contacts / Accessories, 37-way

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 APD 37-way

Contacts	Plating	Crimp Range	Designation	Part number
Socket contacts	tin	0,35 - 0,75 mm²	APK-SA16A07-002-C	121668-0220
		0,75 - 1,50 mm²	APK-SA16A15-002-C	121668-0222
	gold (0,8 µm)	0,35 - 0,75 mm²	APK-SA16G07-002-C	121668-0266
		0,75 - 1,50 mm²	APK-SA16G15-002-C	121668-0268
Pin contacts	tin	0,35 - 0,75 mm²	APK-PA16A07-002-C	121668-0254
		0,75 - 1,50 mm²	APK-PA16A15-002-C	121668-0255
	gold (0,8 µm)	0,35 - 0,75 mm²	APK-PA16G07-002-C	121668-0265
		0,75 - 1,50 mm²	APK-PA16G15-002-C	121668-0267

Press-In Contacts (machined)

Contacts	Plating	Crimp Range	Designation	Part number
Pin contacts	tin	0,30 - 0,60 mm²	APK-PA16A06-E	330-8674-020
	gold (0,8 µm)	0,50 - 1,00 mm²	APK-PA16G10-E	330-8674-025

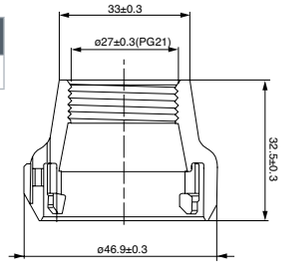
Individual Wire Seals / Blind Seals

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		White	121667-0025

Endbell, 37-way

Order No.	Designation	Color
044-8597-000	Endbell for APD 37-way version only	black (RAL 9005)





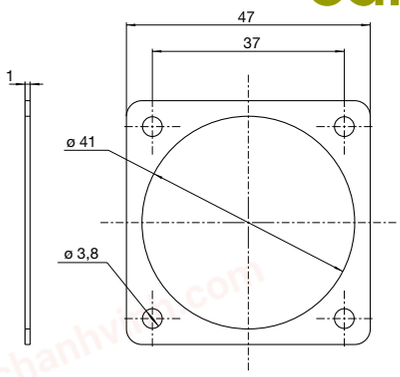
chanhvinh.com

APD Accessories, 37-way

Flange Gasket

Order No.
075-8566-004

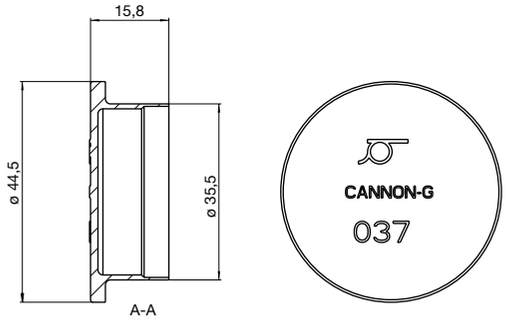




Dust Cap for Plug

Order No.
025-8636-037

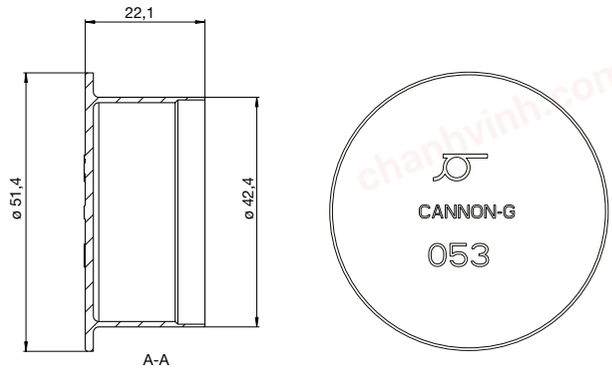




Dust Cap for Receptacle

Order No.
025-8636-053

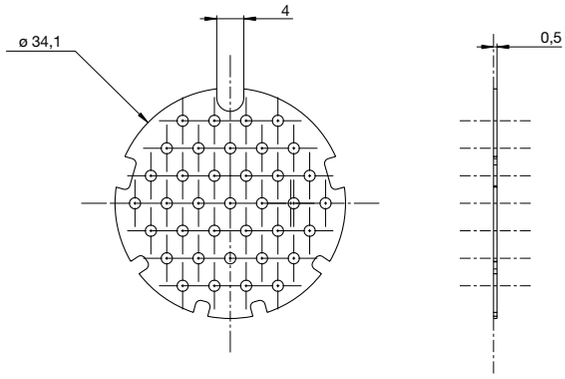




Alignment Disc 37-way

For 37-way Flange Receptacle

Order No.
052-8509-004



Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Tooling, 37-way

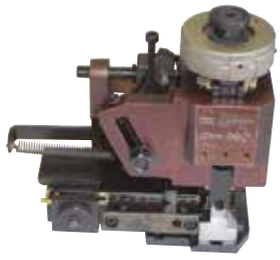
Hand Crimp Tool for Stamped and Formed Contacts

Contact	Hand Tool Order No.	Crimp Die
0,35 - 0,75 mm^2	121586-5156	121586-5260
0,75 - 1,5 mm^2	121586-5156	121586-5197



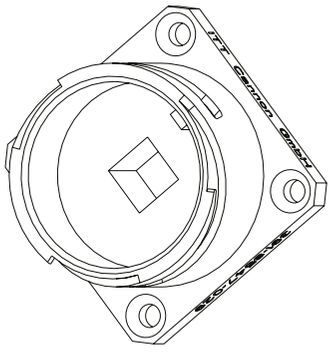
Automatic Crimp Tooling for Stamped Contacts

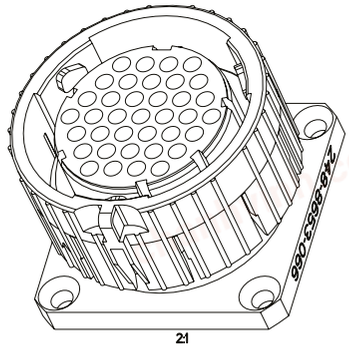
Designation	Order No.	Description
0,35 - 0,75 mm^2	121586-5131	WWZ-20-100-APK16-07-002
0,75 - 1,5 mm^2	121586-5132	WWZ-20-100-APK16-15-002



Support Tools, 37-way







Designation	Order No.
Assembly Adaptor for plug MA-APD-37-R	391-8547-029
Assembly Adaptor for receptacle MA-APD-37-P	248-8653-066
Replacement Nut for MA-APD-37P	217-8516-007
Contact Insertion Tool CIT-APK-16-15-C	121586-5200
Contact Extraction Tool CET-APK-16-C	121586-5195

chanhvinh.com

APD Tooling, 37-way

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



Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Technical Data, 51-way



The APD 51-way connector offers the same features as the 37-way solution. With a secondary lock for added security the connector features up to 8 mechanical key and visual color coding options for better mating identification and to avoid mis-mating.

Standard Code 1: Green
Code 2: Yellow
Code 3: Brown
Code 4: Purple

For other coding consult factory

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	40 Mating Cycles
Coupling Torque	4,5 Nm max.
Static Load, free connector	250 N axial, 150 N lat. (ISO 15170-2, Sec. 4.5)
Dynamic Impact	2 J (40mm- ball- drop- test, height 800mm)

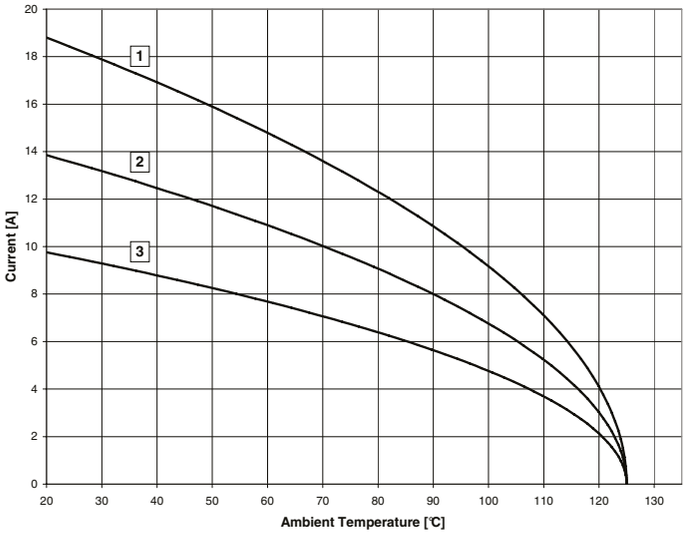
Environmental Data (acc. ISO 15170)	
Temperature Range	-40 °C up to 125 °C (ISO 15170-2, Sec. 6.4)
Humidity Range	up to 95 % r.h. (ISO 15170-2, Sec. 6.4)
Sealing	IP 67 + IP 69k (DIN EN 60529)
Salt Spray	96 h, 35 °C (ISO 15170-2, Sec. 6.2)
Industrial Climate	SO_2, 0,67 % (ISO 15170-2, Sec. 6.3)
Fluid Compatibility	Brakefluid, ATF, fuel, .. (ISO 15170-2, Sec. 6.6)*
Vibration Resistance	Random, 0,2$(m/s^2)^2$/Hz, 3 x 24h, RT

Materials List	
Housing Parts	PBT GF
Sealing Parts	FKM
Coupling Nut	PA 6 GF
Contacts	Copper Alloy, Sn, Ag or Au plated*

* Further information available upon request.

APD Plug, 51-way

Derating Curve



1: 1,5mm²
2: 0,75mm²
3: 0,35mm²

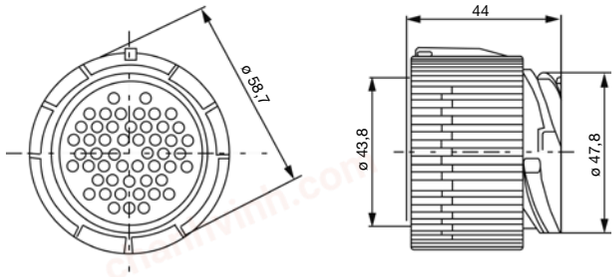
Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Plug, 51-way

Plug, 51-way, Secondary Lock Version



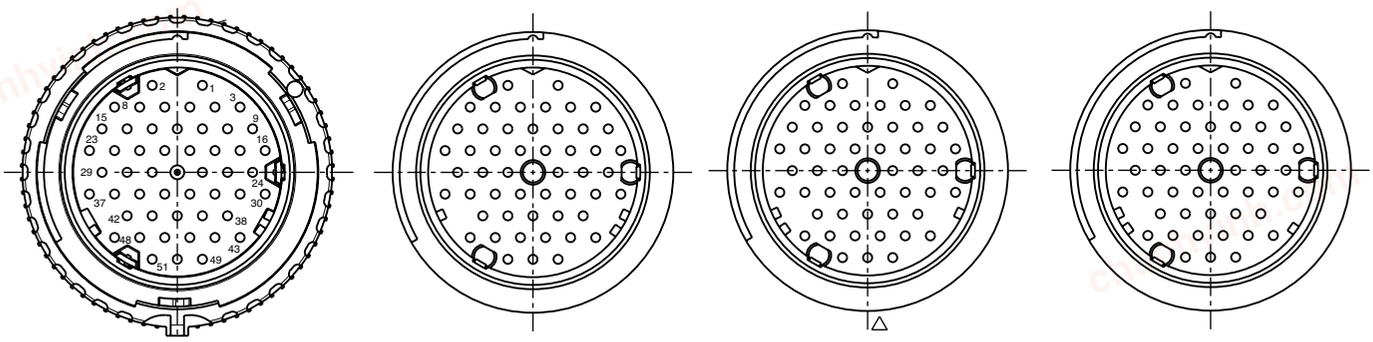


Order No.	Designation	Code	Color
121583-0187	APD-1BP51SN	1	green (RAL 6018)
121583-0188	APD-2BP51SN	2	yellow (RAL 1018)
121583-0189	APD-3BP51SN	3	brown (RAL 3009)
121583-0190	APD-4BP51SN	4	purple (RAL 4001)

Packaging unit 100 pcs.

Coding 51-way layout

View on Mating Face



Code 1 green | Code 2 yellow | Code 3 brown | Code 4 purple

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

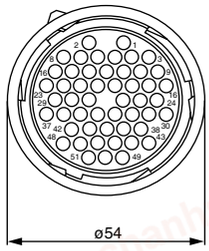
Dimensions shown in mm
Specifications and dimensions subject to change

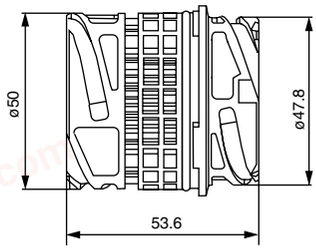
chanhvinh.com

APD Snap-In Receptacle, 51-way

Snap-In Receptacle, 51-way, Secondary Lock Version





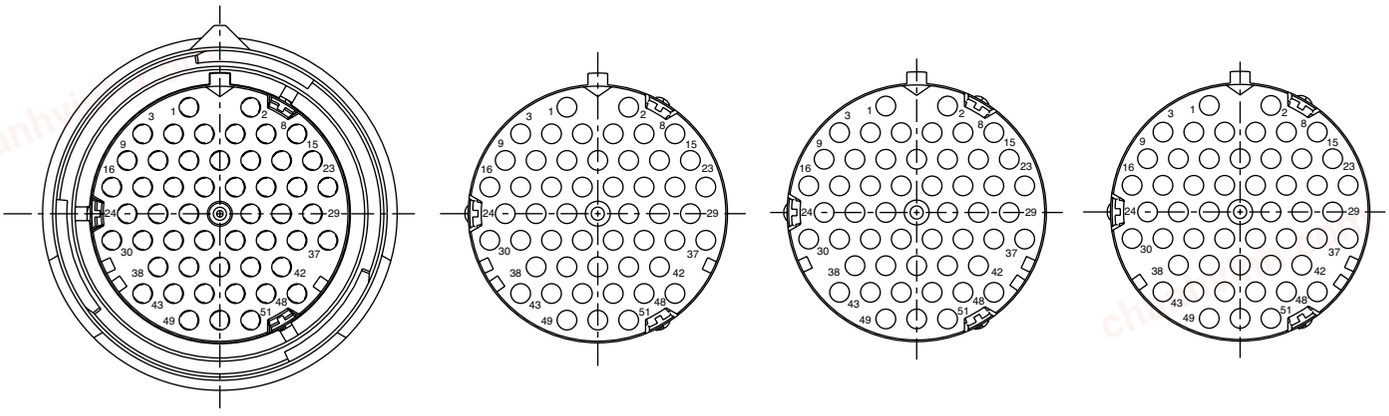


Order No.	Designation	Code	Color
121583-0091	APD-1SS51S	1	green (RAL 6018)
121583-0092	APD-2SS51S	2	yellow (RAL 1018)
121583-0093	APD-3SS51S	3	brown (RAL 3009)
121583-0094	APD-4SS51S	4	purple (RAL 4001)

Packaging unit 100 pcs.

Coding 51-way layout

View on Mating Face



Code 1 green | Code 2 yellow | Code 3 brown | Code 4 purple

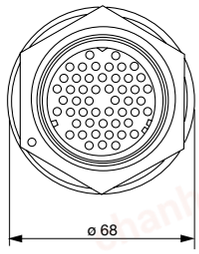
Note: The connectors offer both mechanical keying and visual coding by different colors.
Snap-In dimension on demand 3-D-image available.

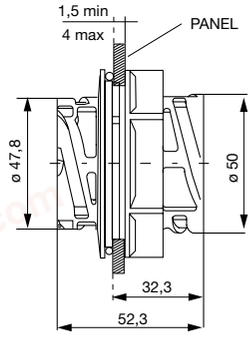
chanhvinh.com

APD Jam Nut Receptacle, 51-way

Jam Nut Receptacle, 51-way, Secondary Lock Version





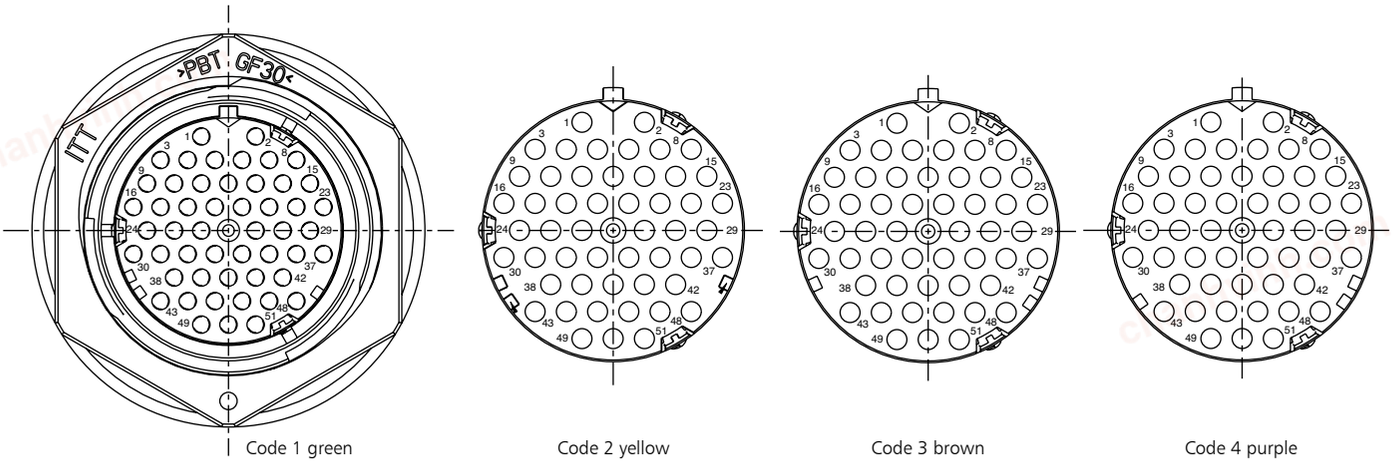


Order No.	Designation	Code	Color
121583-0095	APD-1CS51S	1	green (RAL 6018)
121583-0096	APD-2CS51S	2	yellow (RAL 1018)
121583-0097	APD-3CS51S	3	brown (RAL 3009)
121583-0098	APD-4CS51S	4	purple (RAL 4001)

Packaging unit 100 pcs.

Coding 51-way layout

View on Mating Face

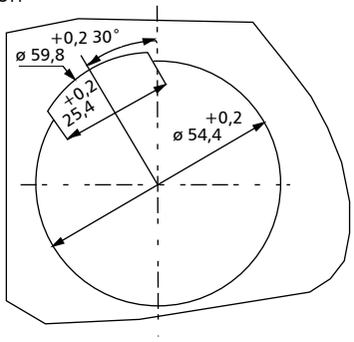


Code 1 green | Code 2 yellow | Code 3 brown | Code 4 purple

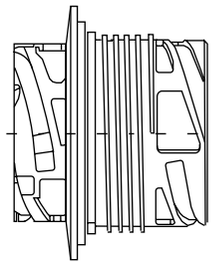
Note: The connectors offer both mechanical keying and visual coding by different colors.

Panel Cut Out

Piece Parts / Assembly Instruction



Wall Thickness
Standard: min. 1,5 / max. 4,0 mm



Housing



O-Ring



Jam Nut

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Contacts / Seals, 51-way

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 51-way Secondary Lock Version

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 mm²	APK-SA16A07-002	121668-0221	APK-SA16A07-002-B	121668-0274
		0,75 - 1,5 mm²	APK-SA16A15-002	121668-0202	APK-SA16A15-002-B	121668-0276
	gold (0,8 µm)	0,35 - 0,75 mm²	APK-SA16G07-002	121668-0270	APK-SA16G07-002-B	121668-0278
		0,75 - 1,5 mm²	APK-SA16G15-002	121668-0272	APK-SA16G15-002-B	121668-0280
Pin contacts	tin	0,35 - 0,75 mm²	APK-PA16A07-002	121668-0252	APK-PA16A07-002-B	121668-0275
		0,75 - 1,5 mm²	APK-PA16A15-002	121668-0253	APK-PA16A15-002-B	121668-0277
	gold (0,8 µm)	0,35 - 0,75 mm²	APK-PA16G07-002	121668-0269	APK-PA16G07-002-B	121668-0279
		0,75 - 1,5 mm²	APK-PA16G15-002	121668-0271	APK-PA16G15-002-B	121668-0281

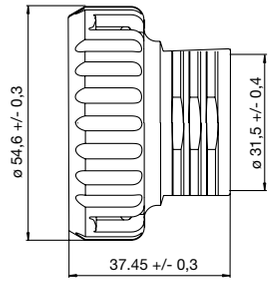
Individual Wire Seals / Blind Seals

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	-	White	121667-0025

APD Accessories, 51-way

Endbell, 51-way





Order No.	Designation	Color
120110-0075	Endbell for APD 51-way version	black (RAL 9005)

chanhvinh.com

APD Tooling, 51-way

Hand Crimp Tool for Stamped and Formed Contacts

Contact	Hand Tool Order No.	Locator
0,35 - 0,75 mm^2	121586-5156	121586-5260
0,75 - 1,5 mm^2	121586-5156	121586-5197

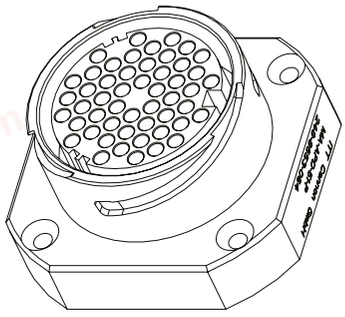


Mini Applications for Stamped and Formed Contacts

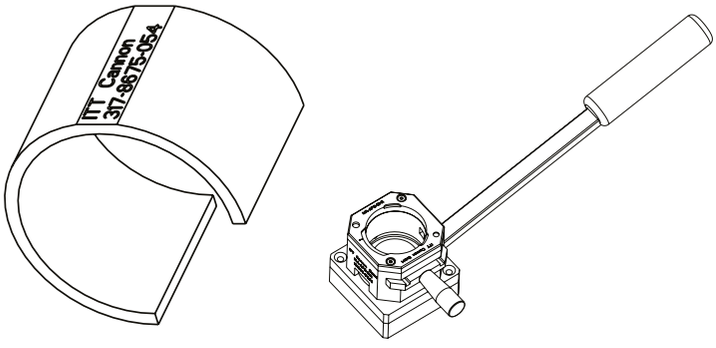
Contact	Order No.	Designation
0,35 - 0,75 mm^2	121586-5131	WWZ-20-100-APK16-07-002
0,75 - 1,5 mm^2	121586-5132	WWZ-20-100-APK16-15-002

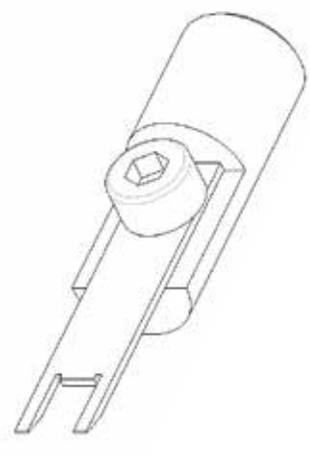


Support Tools, 51-way









Designation	Order No.
Replacement Nut for MA-APD-51-R	217-8516-005
Assembly adaptor for plug MA-APD-51-P-SEC-LOCK	121586-5202
Assembly adaptor for receptacle MA-APD-51-R-SEC-LOCK	121586-5203
Assembly adaptor for Jam nut MA-APD-51-FL-SEC-LOCK	121586-5206
Unlocking Device	317-8675-054
Secondary Lock Set CET-ADP-51	121586-5259*

*For plug only

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD PCB Connectors



The demand within the transportation & industrial markets for direct PC board connections is increasing. Solutions demanding space savings, reduction of assembly costs or standardized assembly methods are just a selection of reasons driving this trend. PCB type connectors complement the offering of crimp and solder cup type connections within the APD product range.

APD connectors with PCB contacts can be offered for most of our products shown in this catalog. This chapter will provide a first impression of technical features and benefits as well as examples of PCB connector solution.

Technical Specifications

Mechanical Data	All PCB connectors are derived from standard APD lines and feature similar properties
Electrical Data	Depends on exact design of contacts and requirements of solution, generally similar to respective APD standard product
Environmental	IP67 / IP69K with improved long term stability against fluids e.g. motor oil due to press- in assembly into connector. Resistance against fluids according to ISO 15170

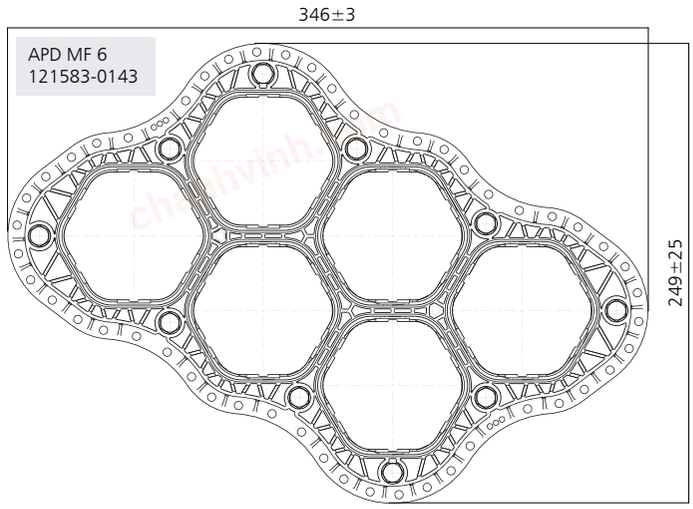
- PCB contacts are useable in all non secondary lock versions
- Increased long term stability – sealing against e.g. motor oil
- Individual defintion of contact length – adaptation to application
- Pre-assembled versions can be delivered - avoids additional harnessing work
- Useable for printed flex board applications
- Increases reliability (no harness errors)
- Avoids additional harness costs and reduces complexity of total manufacturing process

chanhvinh.com

Modular APD Interface

Enabling quick and simple management of APD connectors incabin to chassis and centralized interconnect applications.





The Challenge

Mating, un-mating, reconfiguring or adding cabin to chassis and centralized interconnects on the production line can be a complex, time consuming and costly exercise. In some instances the cabin can be removed from the chassis several times during the assembly process.

Similarly, subsequent upgrades, services and refurbishments can very often necessitate additions or amendments to power and signal connectivity within the vehicle. Once again managing and working with these traditional interconnect configurations can be surprisingly complex.

The ITT Cannon Solution

In order to solve this issue ITT Cannon's engineers developed the innovative and patented Modular APD Interface that ensure installing, reconfiguring, mating and un-mating of Cannon's class leading APD interconnects is simple, fast and pain free.

The easy to install modular interface saves time, saves space and reduces complexity during initial assembly and subsequent service and upgrade activity. The system delivers exceptional flexibility to add or change connectors as additional vehicle services are developed and to implement standardized yet customizable connector systems for multiple applications.

Key Features

- Simple to install
- Flexible modular design providing
  – Ability to easily add and reconfigure connectors
  – Standardized solution for multiple applications
- Space saving
- Reduces assembly time and complexity
- For use with class leading APD interconnect range
- Fully customizable plate and modules

Modular AP Interface technical data	
Temperature Range	-40°C to +85°C
Water tightness	IP54 / IP6K5 depending on mounting position
Material	Module: PBT GF10 Sealing of Module: HNBR Frame: PBT GF30 Frame Seal: TPE

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APM Technical Data, 4-way



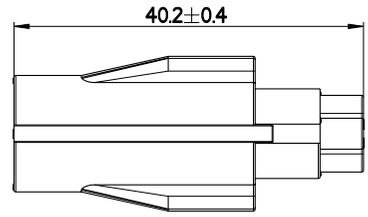
The APM connector has been developed for transportation & off-road vehicle applications that require a simple, non-sealed, in-line and securely mated connector solution. The secondary lock, mechanical keying and the positive audible click ensures a ultra secure connection. The minimized diameter of plug connector will fit through an 11mm dia. opening and can be used in small diameter tubing.

Applications for the 4-way include:

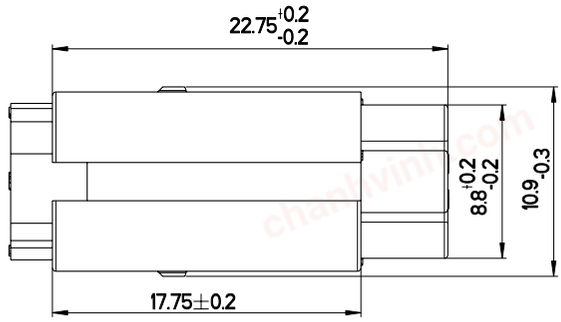
- Tractor cabs
- Vehicle lighting clusters
- Indicator lights
- Construction vehicle cabs
- Spotlight & work light applications

Technical Data*	
Operating Voltage	16 V DC
Operating Current	5 A @ 70°C
Durability	25 Mating Cycles
Temperature Range	-40 °C up to 105 °C
Sealing	IP 50
Connector material	PBT
Contact material	Copper alloy tinned, socket sleeve: stainless steel

* Further information available upon request.

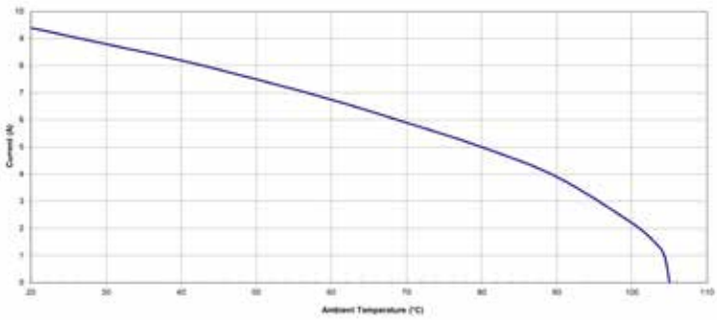


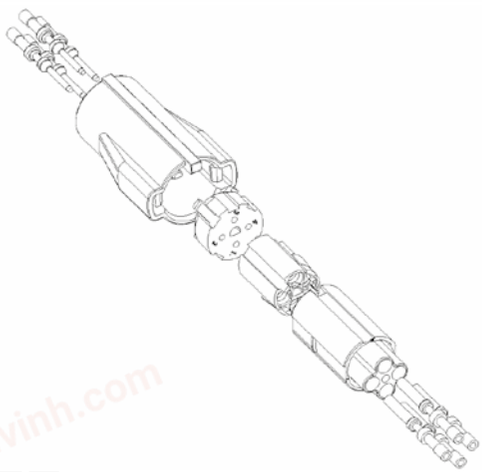
APM Mated Pair

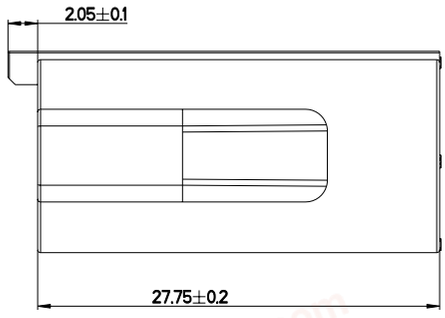


APM Plug

Derating Curve with 0.5 mm²







APM Receptacle

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APM Technical Data, 4-way

APM Plug 4-way

	Order No.	Designation	Color Coding
4-way, female	121667-0027	APM-4S	Yellow
4-way, female	121667-0045	APM-4S	Red

APM Receptacle 4-way

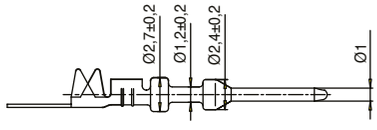
	Order No.	Designation	Color Coding
4-way, male	121667-0026	APM-4P	Yellow
4-way, male	121667-0044	APM-4P	Red

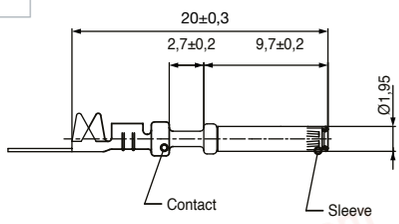
APM Contacts and Accessories

APM Crimp-Contacts Tinned

	Order No.	Designation	
Socket stamped 0.4–0.75 mm²	121347-0100	MSS121347-100	On reel, 5000 pcs.
	031-8703-100	K.BUCH.EINZ.MSS-100	Loose Piece Bulk Pack
Pin stamped 0.4–0.75 mm²	121348-0100	MSS121348-100	On reel, 5000 pcs.
	330-8672-100	K.STIFT EINZ.MSS-100	Loose Piece Bulk Pack







Hand Crimp Tool

Crimp Tool	Order No.	Pin Contact	Socket Contact
CCT-MSS/SS-20N	121086-3331	330-8672-100	031-8703-100



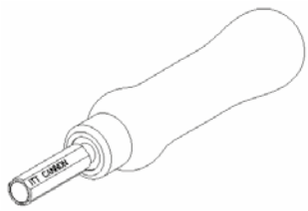
Semi-automatic Crimp Tool

Crimp Tool	Order No.	Pin Contact	Socket Contact
WWZ-MECAL-MSS-EVS0946-J	121586-5214	121348-0100	121347-0100

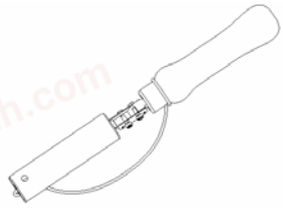


Assembly Tools

	Order No.	Designation
Hand assembly receptacle	317-8675-050	CIT-APM 4pol Pin
Hand disassembly receptacle	121586-5210	CET-APM 4pol Pin
Hand disassembly plug	121586-5209	CET-APM 4pol Socket







Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APE Technical Data, 2-way and 3-way Plug





APE 2 and 3-way are single wire sealed inline connectors designed to protect against the harshest environmental conditions. They are highly resistant to contaminants, vibration and shock. Their low contact resistance provides excellent signal integrity, and they provide IP69K sealing levels.

Applications:

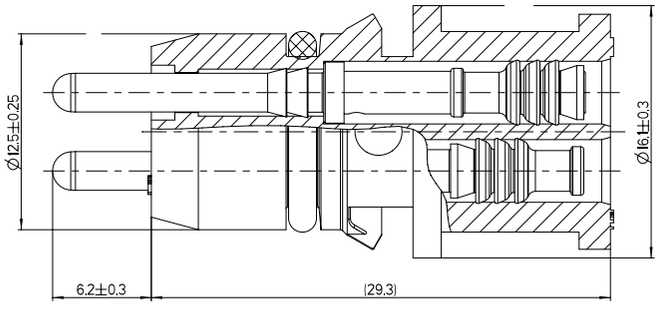
- ABS/EBS Brake Systems for Truck and Trailers

Technical Data*	
Operating Voltage	48 V dc max.
Operating Current	13 A
Durability	25 Mating Cycles
Temperature Range	-40 °C up to 125 °C
Sealing	IP 69K
Max. vibration resistance	100 m/s² at 10-500 Hz
Connector material	Thermoplastic

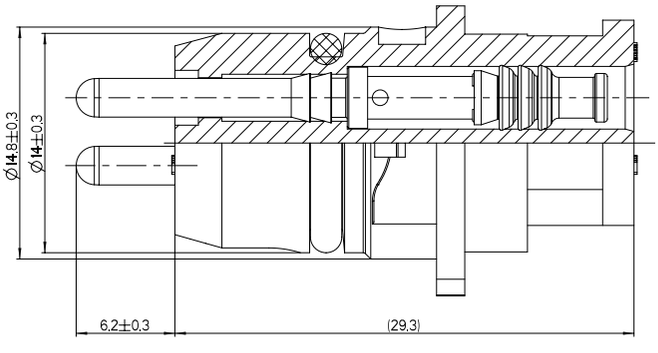
* Further information available upon request.

APE Plug

	Order No.	Designation
2-way	120110-0044	APE-P2P
3-way	120110-0045	APE-P3P



APE 2-way



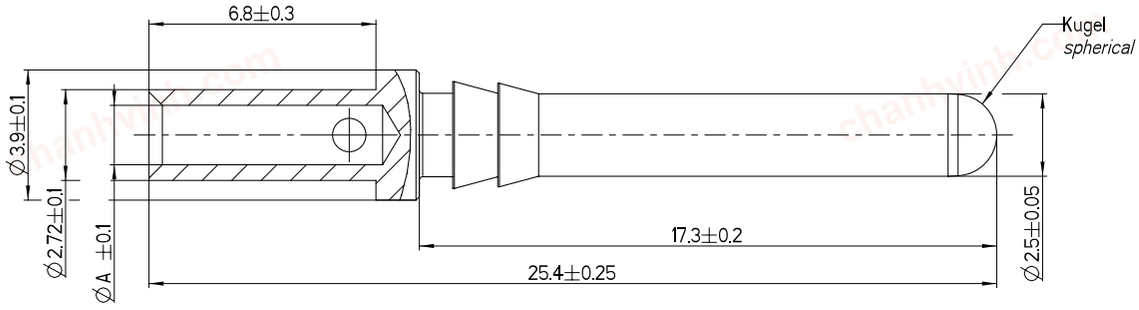
APE 3-way

chanhvinh.com

APE Contacts and Accessories

APE Machined Press-in Contacts Silver Plated

Press In Contacts	Order No.	Designation	Wire Hole A	Loose Piece Bulk Pack
0.3–0.6 mm² (22/20 AWG)	330-8674-053	PIN Contact APE 0.3-0.6	1.2 mm	1000
0.75–1.5 mm² (18/16 AWG)	330-8674-013	PIN Contact APE 0.75-1.5	1.78 mm	1000



Individual Wire Seals

Order No.	Isolation Diameter	Color	Packaging Unit
121667-0042	1.4 – 2.0 mm	Green	5000

Hand Crimp Tool for Machined Contacts

Basic Hand Crimp Tool	Order No.
M22520/1-01	995-0001-585

Locator	Order No.
CT120090-163	120090-0163





Automatic Crimp Tooling for Machined Contacts

Designation	Order No.	Description
WAZ7F-CE	121586-5067	Pneumatic Crimp
CT120090-163	120090-0163	Locator
BM-2	121586-5068	Bench Mount
WA-10	121586-5069	Foot Pedal



Assembly Tooling for Machined Contacts

Designation	Order No.	Description
CHPZ-240	121586-0081	Hand Lever Press
CT120090-158	120090-0158	Assembly Device: APE 2-way
CT120090-159	120090-0159	Assembly Device: APE 3-way
CT121086-3210	121086-3210	Cable Holder
Insertion tip	317-8666-037	Spare part for assembly device



Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APC Technical Data, 2-way, 4-way and 6-way



The APC connector series has been developed for automotive, industrial and entertainment markets that require a simple, non-sealed, flat in-line and securely mated connector solution. The secondary lock feature with clamp and the option for the 6 way mated connector pair to be mounted for protectiom against unwanted separation, ensure a ultra secure connection. The maximum connector height is only 7.5mm and this solution can be used with the 0.5 to 4 mm² APK25 contact system.

Application include:

- Tractor cabs
- Construction vehicle and devices
- Inside passenger Cars
- Spotlight & work light applications
- Industrial machines

Technical Data*	
Operating Voltage	48 V DC
Operating Current	30 A @ 25°C**
Durability	25 Mating Cycles
Temperature Range	-40 °C up to 120 °C
Sealing	IP 21
Connector material	PBT
Contact material	Copper alloy tinned

* Further information available upon request.
** with max. wire size.

APC Plug Connector

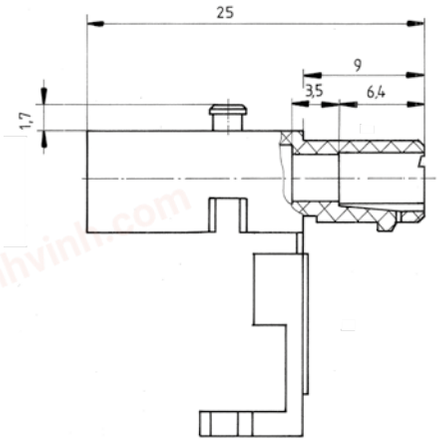
	Order No.	Designation
2-way	391-8544-002	APC-P2B25
4-way	391-8544-004	APC-P4B25
6-way	391-8530-016	APC-P6B25SW-002

APC Receptacle Connector

	Order No.	Designation
2-way	391-8543-002	APC-R2B25
4-way	391-8543-004	APC-R4B25
6-way	391-8531-016	APC-R6B25SW-002

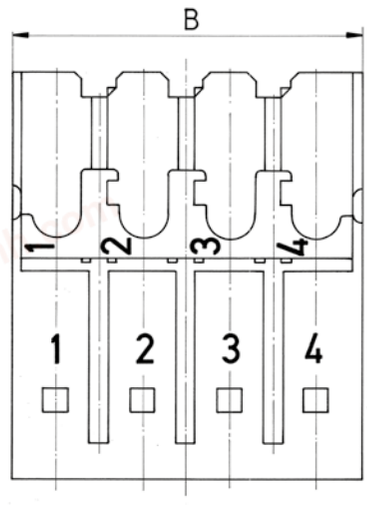
chanhvinh.com

APC 2-way, 4-way and 6-way

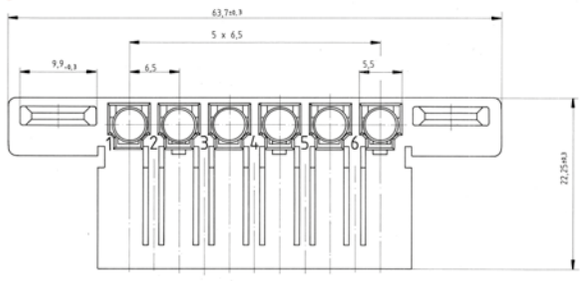


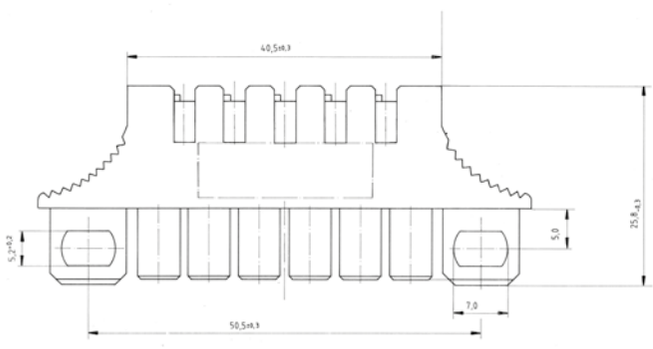
APC 2 and 4-way Plug

	B
2-way	14
4-way	28

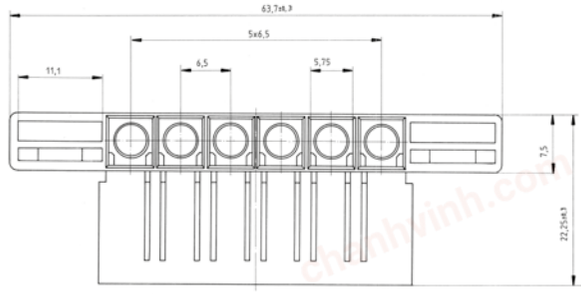


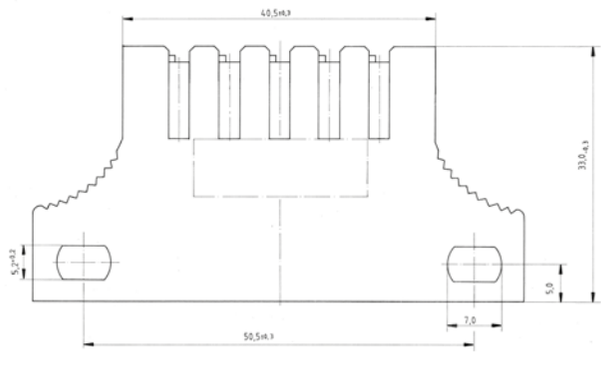
APC 2 and 4-way Receptacle





APC 6-way Plug





APC 6-way Receptacle

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

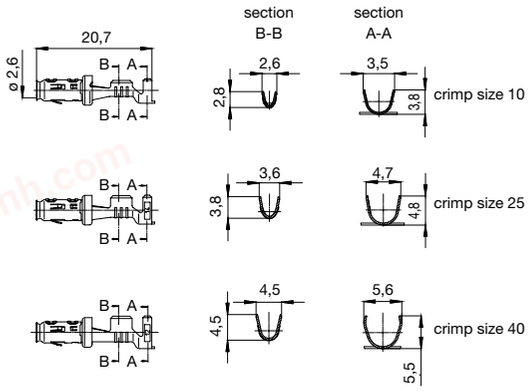
APC Contacts and Accessories

APC Socket Crimp-Contacts Tinned*

Designation	Order No.	
APK-SB25A10 (0.5–1.0 mm²)	121668-0100	On Reel, 3000 pcs.
	031-8717-120	Loose Piece Bulk Pack
APK-SB25A25 (1.5–2.5 mm²)	121668-0101	On Reel, 3000 pcs.
	031-8717-121	Loose Piece Bulk Pack
APK-SB25A40 (2.5–4.0 mm²)	121668-0102	On Reel, 3000 pcs.
	031-8717-122	Loose Piece Bulk Pack

* Further plating available upon request.



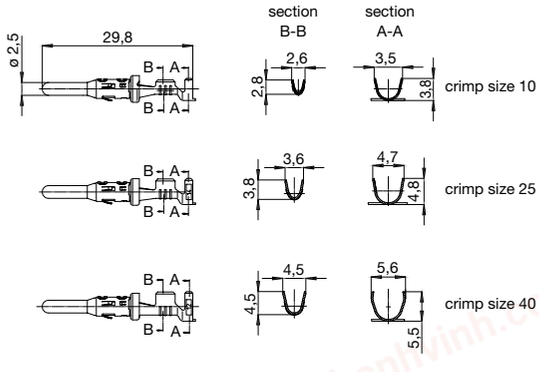


APC Pin Crimp-Contacts Tinned*

Designation	Order No.	
APK-PB25A10 (0.5–1.0 mm²)	121668-0000	On Reel, 3000 pcs.
	031-8717-020	Loose Piece Bulk Pack
APK-PB25A25 (1.5–2.5 mm²)	121668-0001	On Reel, 3000 pcs.
	031-8717-021	Loose Piece Bulk Pack
APK-PB25A40 (2.5–4.0 mm²)	121668-0002	On Reel, 3000 pcs.
	031-8717-022	Loose Piece Bulk Pack

* Further plating available upon request.





Hand Crimp Tool

Crimp Tool	Order No.	Wire Size
CHT-APK-25	121586-5241	0.5–4 mm²



Semi-automatic Crimp Tool*

Crimp Tool	Order No.	Pin Contact	Socket Contact
WWZ-20.100-APK 25-10	121586-5128	121668-0000	121668-0100
WWZ-20.100-APK 25-25	121586-5129	121668-0001	121668-0101
WWZ-20.100-APK 25-40	121586-5130	121668-0002	121668-0102

* For spare parts please contact factory.



Assembly Tool

	Order No.	Designation
Extraction Tool	121086-3278	CET-APK25



chanhvinh.com

APD Customized Solutions

The APD Series is a fully proven and diversified solution for harsh environment applications. Still, on occasions, there is an off-road and heavy vehicle applications with non-standard requirements that cannot be met by off-the-shelf connectors. This is where ITT Cannon can help, as APD is a great starting point for developing a truly bespoke solution. Some examples of how APD, combined with deep application knowledge and engineering expertise, has delivered for customers include…

Connector Solution for Use Within Diesel Engines

A German engine manufacturing company came to ITT Cannon requiring a custom receptacle for large diesel engines such as those found in ships and trains. These connectors were used within the engine, so they had to provide excellent sealing against engine oils while maintaining the integrity of the contact in the presence of extreme vibration.

To address the needs of this design, APD 7-way connectors from the standard APD series served as a starting point. They included customizations such as an additional o-ring to improve tightness, vibration resistance, and pressure resistance and a stainless steel spring clip to hold the connector in place. In addition, due to severe space limitations, the overall connector footprint was reduced to ½ the size of the standard connector solution.

Connector Solution for Double-Clutch Gearbox

A major agricultural and construction equipment manufacturer required a custom solution for a double-clutch gearbox for tractor transmissions. This gearbox required six different connections: two larger 6-way power connectors based on the APD 19-way interface and 4 smaller APD 4-way-based connectors for signal transmission.

Several customizations were required to meet design specifications. A radical change in the form and shape of the connectors was necessary for them to fit within the unique shape of the gearbox. Two connectors would be highly exposed to gear oil, and all had vibration resistance requirements that were met by two bespoke purple o-rings.

Connectors for a Diesel Pump Housing

A global Tier 1 supplier for commercial vehicle manufacturers required connectors that would be exposed to diesel exhaust fluid (AdBlue) within a Selective Catalytic Reduction (SCR) pump and contacted ITT Cannon for a custom solution. With APD 37-way as a starting point, as requested by the customer who was familiar with this product, key customization included substantial amendments to the receptacle form factor and size so that the connectors would fit within the customer pump housing and a stainless steel bracket to hold the connector securely in place. The application required 7 of the available 37 contact positions and the unused contact cavities were closed in the production process, ensuring the customer didn't need to seal cavities. ITT Cannon delivered a full cable assembly, incorporating the custom connector, to the customer facility to minimize integration time and complexity.

Dimensions shown in mm
Specifications and dimensions subject to change

chanhvinh.com

APD Conversion Charts

cannon

Cross Reference AWG Size / metric size (mm^2)

AWG	mm^2	AWG	mm^2	AWG	mm^2
6/0	170,3	10	5,27	25	0,163
5/0	135,1	11	4,15	26	0,128
4/0	107,2	12	3,31	27	0,102
3/0	85,0	13	2,63	28	0,0804
2/0	67,5	14	2,08	29	0,0646
0	53,4	15	1,65	30	0,0503
1	42,4	16	1,31	31	0,0400
2	33,6	17	1,04	32	0,0320
3	26,7	18	0,823	33	0,0252
4	21,2	19	0,653	34	0,0200
5	16,8	20	0,519	35	0,0161
6	13,3	21	0,412	36	0,0123
7	10,6	22	0,325	37	0,0100
8	8,35	23	0,259	38	0,00795
9	6,62	24	0,205	39	0,00632

Conversion Chart for mm to Inches

mm	inches	mm	inches	mm	inches
1	0.04	18	0.71	35	1.38
2	0.08	19	0.75	36	1.42
3	0.12	20	0.79	37	1.46
4	0.16	21	0.83	38	1.50
5	0.20	22	0.87	39	1.54
6	0.24	23	0.91	40	1.57
7	0.28	24	0.94	41	1.61
8	0.31	25	0.98	42	1.65
9	0.35	26	1.02	43	1.69
10	0.39	27	1.06	44	1.73
11	0.43	28	1.10	45	1.77
12	0.47	29	1.14	46	1.81
13	0.51	30	1.18	47	1.85
14	0.55	31	1.22	48	1.89
15	0.59	32	1.26	49	1.93
16	0.63	33	1.30	50	1.97
17	0.67	34	1.34		

Equation for converting mm to inches: mm divided by 25.4 = inches

Conversion Chart for Centigrade to Fahrenheit

°C	°F	°C	°F	°C	°F
-40	-40.0	-10	+14.0	+10	+50.0
-38	-36.4	-9	+15.8	+11	+51.8
-36	-32.8	-8	+17.6	+12	+53.6
-34	-29.2	-7	+19.4	+13	+55.4
-32	-25.6	-6	+21.2	+14	+57.2
-30	-22.0	-5	+23.0	+15	+59.0
-28	-18.4	-4	+24.8	+16	+60.8
-26	-14.8	-3	+26.6	+17	+62.6
-24	-11.2	-2	+28.4	+18	+64.4
-22	-7.6	-1	+30.2	+19	+66.2
-20	-4.0	0	+32.0	+20	+68.0
-19	-2.2	+1	+33.8	+21	+69.8
-18	+0.4	+2	+35.6	+22	+71.6
-17	+1.4	+3	+37.4	+23	+73.4
-16	+3.2	+4	+39.2	+24	+75.2
-15	+5.0	+5	+41.0	+25	+77.0
-14	+6.8	+6	+42.8	+26	+78.8
-13	+8.6	+7	+44.6	+27	+80.6
-12	+10.4	+8	+46.4	+28	+82.4
-11	+12.2	+9	+48.2	+29	+84.2
				+30	+86.0

Equation for converting Centigrade to Fahrenheit: 32 + (°C x 1.8) = Fahrenheit

chanhvinh.com

APD Part Number Index

cannon

Order Number	Page
025-0480-000	15, 22, 32, 39
025-0487-000	49
025-8636-005	15, 22, 32, 39
025-8636-037	57
025-8636-053	49, 57
030-8531-030	13
030-8531-031	13
030-8531-032	13
030-8531-033	13
030-8581-029	12
030-8614-010	12, 16
030-8614-020	12, 16
030-8614-030	12, 16
031-8521-010	12, 16
031-8521-020	12, 16
031-8521-030	12, 16
031-8531-010	13
031-8531-011	13
031-8531-012	13
031-8531-013	13
031-8646-001	21, 23
031-8646-002	21, 23
031-8646-003	21, 23
031-8646-010	21, 23
031-8646-011	21, 23
031-8646-015	12
031-8703-100	69
031-8717-020	74
031-8717-021	74
031-8717-022	74
031-8717-120	74
031-8717-121	74
031-8717-122	74
044-8597-000	56
044-8597-002	49
044-5897-004	49
052-5809-003	64
052-8509-004	57
058-8578-100	32, 39
058-8578-101	32, 39
058-8578-102	32, 39
058-8578-103	32, 39
058-8578-105	32, 39
066-8516-006	9, 18, 26, 30, 37
075-8503-000	14, 21, 31, 38
075-8503-004	14, 21, 31, 38
075-8566-003	50
075-8566-004	57
120090-0158	71
120090-0159	71
120090-0163	71
120090-0165	23
120090-0171	23
120110-0011	42
120110-0013	42
120110-0014	42
120110-0020	37
120110-0024	35
120110-0026	14, 22, 32, 39
120110-0044	70
120110-0045	70
120110-0075	64
120110-0083	37
120110-0217	15, 22, 32, 38
120110-0220	13
120110-0221	13
120110-0222	13
120110-0229	13
120190-0163	40
121086-3210	71
121086-3278	33, 74
121086-3331	69
121347-0100	69
121348-0100	69
121583-0000	25
121583-0001	25
121583-0002	25
121583-0003	25
121583-0004	26
121583-0005	26
121583-0006	26
121583-0007	26
121583-0008	27
121583-0009	27
121583-0010	27
121583-0011	27
121583-0012	8
121583-0013	8
121583-0014	9
121583-0015	9
121583-0016	10
121583-0017	10
121583-0018	35
121583-0019	36
121583-0020	37
121583-0021	14, 22, 32, 39
121583-0025	18
121583-0026	18
121583-0027	19
121583-0028	36
121583-0042	8
121583-0043	9
121583-0058	54
121583-0061	36
121583-0083	18
121583-0084	18
121583-0085	19
121583-0086	19
121583-0091	62
121583-0092	62
121583-0093	62
121583-0094	62
121583-0095	63
121583-0094	62
121583-0095	63
121583-0096	63
121583-0097	63
121583-0098	63
121583-0119	44
121583-0120	45
121583-0121	44
121583-0122	45
121583-0123	44
121583-0124	45
121583-0125	44
121583-0126	45
121583-0127	45
121583-0128	45
121583-0129	45
121583-0130	45
121583-0131	45
121583-0132	45
121583-0133	45
121583-0134	45
121583-0135	46
121583-0136	46
121583-0187	61
121583-0188	61
121583-0189	61
121583-0190	61
121583-0205	37
121583-0211	35
121583-0212	37
121583-0213	29
121583-0214	29
121583-0215	30
121583-0216	30
121583-0217	10
121586-0081	40, 53, 59, 66, 71
121586-5067	53, 59, 66, 71
121586-5068	53, 59, 66, 71
121586-5069	53, 59, 66, 71
121586-5075	23
121586-5077	23
121586-5128	74
121586-5129	74
121586-5130	74
121586-5131	51, 58, 65
121586-5132	51, 58, 65
121586-5134	33
121586-5135	33
121586-5136	33
121586-5149	23
121586-5156	51, 58, 65
121586-5192	16
121586-5193	16
121586-5195	58
121586-5197	58
121586-5200	58
121586-5202	65
121586-5203	65
121586-5206	65
121586-5209	69
121586-5210	69

chanhvinh.com

APD Part Number Index

Order Number	Page
121586-5214	69
121586-5217	40
121586-5229	16
121586-5232	16
121586-5234	52
121586-5235	52
121586-5237	40
121586-5241	74
121586-5242	33
121586-5249	33
121586-5244	23
121586-5253	16
121586-5257	16
121586-5259	68
121667-0022	38, 48, 56, 64
121667-0023	38, 48, 56, 64
121667-0024	38, 48, 56, 64
121667-0025	38, 48, 56, 64
121667-0026	69
121667-0027	69
121667-0042	71
121667-0044	69
121667-0045	69
121668-0000	74
121668-0001	74
121668-0002	74
121688-0021	31
121688-0025	31
121668-0022	31
121668-0026	31
121668-0027	31
121668-0028	31
121668-0029	31
121668-0032	31
121668-0033	31
121668-0034	31
121668-0035	21
121668-0100	74
121668-0101	74
121668-0102	74
121668-0124	31
121668-0125	31
121668-0126	31
121668-0127	31
121688-0128	31
121688-0202	48, 64
121668-0220	56, 62
121668-0221	48, 64
121668-0222	56, 62
121688-0252	48, 64
121688-0253	48, 64
121668-0254	56, 62
121668-0255	56, 62
121668-0265	56, 62
121668-0266	56, 62
121668-0267	56, 62
121668-0268	56, 62
121668-0269	48, 64

Order Number	Page
121668-0270	48, 64
121668-0271	48, 64
121668-0272	48, 64
121668-0274	48, 64
121668-0275	48, 64
121668-0276	48, 64
121668-0277	48, 64
121668-0278	48, 64
121668-0279	48, 64
121668-0280	48, 64
121668-0281	48, 64
192900-0000	38
192900-0001	38
192900-0002	38
192900-0003	38
192922-1450	40
192990-7600	40
217-8516-001	10, 19, 27, 36
217-8516-005	65
217-8516-007	58
248-8653-026	55
248-8653-031	41
248-8653-053	41
248-8653-063	16, 23
248-8653-066	58
248-8653-105	41
248-8653-106	41
248-8653-134	41
249-8619-005	11
249-8619-006	11
249-8619-007	20
249-8619-010	16, 23
249-8619-017	55
317-8648-008	40, 52, 59
317-8649-034	16, 23
317-8666-037	71
317-8675-050	69
330-8672-100	69
317-8675-054	65
330-8672-019	36, 37
330-8672-021	36, 37
330-8674-013	71
330-8674-053	71
330-8674-020	56
330-8674-025	56
331-8547-029	58
351-8697-000	21
351-8697-001	14
351-8697-002	14
351-8697-003	14
351-8697-004	14
351-8697-005	14
351-8697-007	21
351-8697-009	14
351-8697-010	21
351-8697-014	14
391-8530-016	72
391-8531-016	72

Order Number	Page
391-8543-002	72
391-8543-004	72
391-8544-002	72
391-8544-004	72
430-8645-000	21, 23
430-8645-002	21, 23
430-8645-003	21, 23
430-8645-007	21, 23
430-8645-009	21, 23
980-8672-004	14, 22
980-8672-005	16, 23
980-8672-010	14, 22
980-8672-015	51
980-8672-016	51
980-8672-017	51
980-8672-018	51
980-8672-019	51
980-8672-020	51
980-8672-021	51
980-8672-034	50
995-0001-507	52, 59
995-0001-585	40, 52, 59, 71

chanhvinh.com

cannon

Amazing things happen when great things connect



chanhvinh.com

Connect with your ITT Cannon representative today or visit us at ittcannon.com

Connect with the experts

ITT's Cannon brand is a world leader in the design and manufacture of highly engineered connector solutions for multiple end markets.

Why ITT

ITT is a focused multi-industrial company that designs and manufactures highly engineered critical components and customized technology solutions. ITT's Cannon brand is a leading global manufacturer of connector products serving international customers in aerospace, defense, medical, industrial and transportation end markets. ITT's Connector business, which also includes the Veam and BIW Connector Systems brand, manufactures and supplies a variety of connectors and interconnects that make it possible to transfer data, signal and power in an increasingly connected world.

Connect with your ITT Cannon representative today or visit us at ittcannon.com

Follow us

NORTH AMERICA

USA - Irvine, CA
+1.800.854.3028

MEXICO - Nogales
+52.631.3110050

EUROPE

GERMANY - Weinstadt
+49.7151.699.0

UK - Basingstoke
+44.1256.347400

ITALY - Lainate
+39.02938721

FRANCE
+33.1.60.04.93.93

ASIA PACIFIC

SINGAPORE
+65 66974205

JAPAN - Kanagawa
+81.462.57.2010

KOREA
+82.2.702.7111

CHINA - Shenzhen City
+86.755.2726.7888

HONG KONG
+852.2732.2720

The "ITT Engineered Blocks" symbol, "ITT", "Cannon" and "Veam"are registered trademarks of ITT Inc.
Specification and other data are based on information available at the time of printing, and are subject to change without notice.

© 2026 ITT Inc.
ITT Cannon APD CAT 06/2026