

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. According to 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)

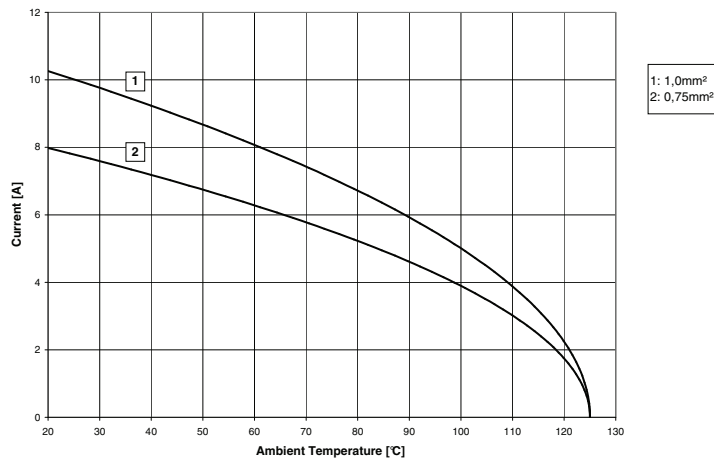
Temperature Range	-40 °C up to 125 °C (ISO 15170-2, Sec. 6.4)
Humidity Range	up to 95 % r.h. (ISO 15170-2, Sec. 6.4)
Sealing	IP 67 and IP 69K (DIN EN 60529)*
Salt Spray	96 h, 35 °C (ISO 15170-2, Sec. 6.2)
Industrial Climate	SO ₂ , 0,67 % (ISO 15170-2, Sec. 6.3)
Fluid Compatibility	Brakefluid, ATF, fuel,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

Materials List

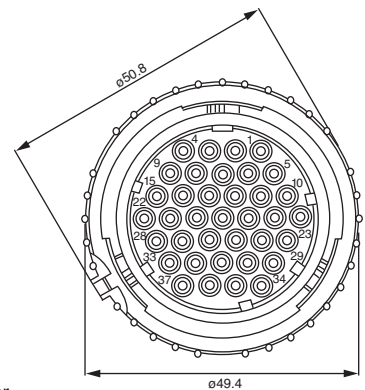
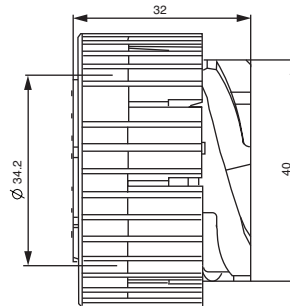
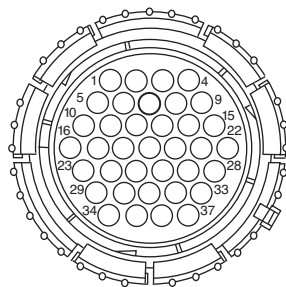
Housing Parts	PA 66 GF
Sealing Parts	FKM (alternative FVMQ)
Coupling Nut	PA 6 GF
Contacts	Copper Alloy, Au or Sn plated*

*Further information on request

Derating Curve



Plug, 37-way



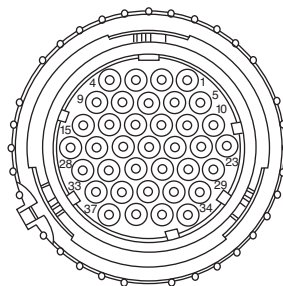
Order No.	Designation	Code	Color
121583-0058	APD-1B537	1	black (RAL 9005)

Packaging unit 100 pcs.

Socket crimp contacts see page 58.
Accessories, see pages 58 and 59.

Coding 37-way layout

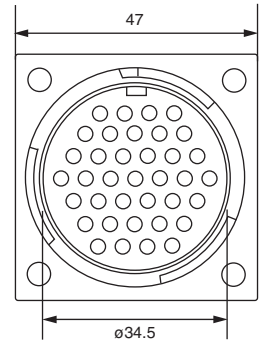
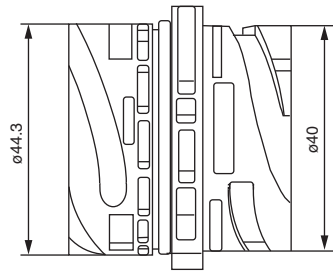
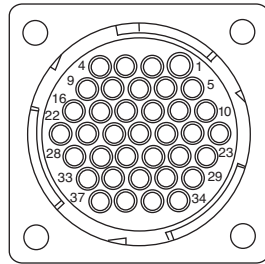
View on Mating Face



Note: Additional coding on demand.



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.

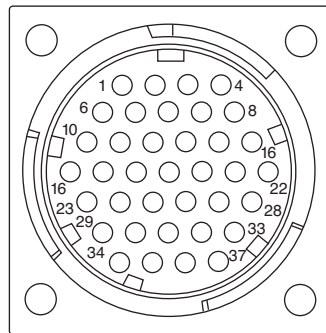
Pin crimp contacts see page 58.

Accessories, see pages 58 and 59.

Note: Requires use of alignment disc.

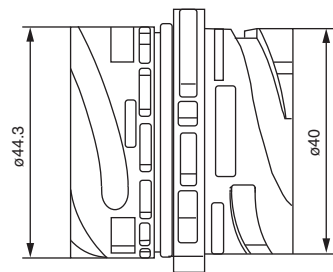
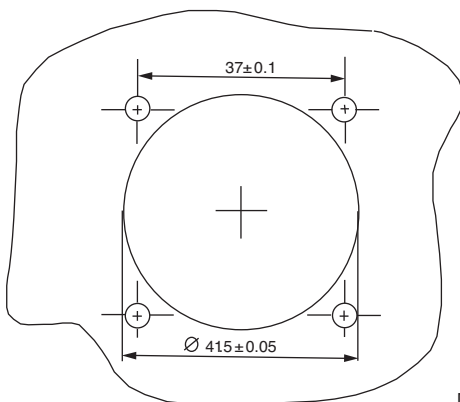
Coding 37-way layout

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).

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

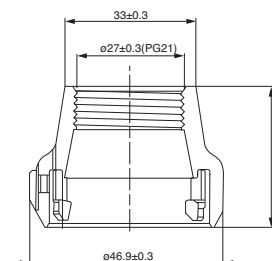
Contacts (stamped & formed)	Plating	Crimp Range	Reeled 5000 pcs/reel	
			Designation	Part Number
Socket Contacts	tin	0,35 - 0,75 mm ²	APK-SA16A07-002-C	121668-0220
		0,75 - 1,50 mm ²	APK-SA16A15-002-C	121668-0222
	gold (0,8 μm)	0,35 - 0,75 mm ²	APK-SA16G07-002-C	121668-0266
		0,75 - 1,50 mm ²	APK-SA16G15-002-C	121668-0268
Pin Contacts	tin	0,35 - 0,75 mm ²	APK-PA16A07-002-C	121668-0254
		0,75 - 1,50 mm ²	APK-PA16A15-002-C	121668-0255
	gold (0,8 μm)	0,35 - 0,75 mm ²	APK-PA16G07-002-C	121668-0265
		0,75 - 1,50 mm ²	APK-PA16G15-002-C	121668-0267
Press-In Contacts (machined)				
Pin Contacts	tin	0,30 - 0,60 mm ²	APK-PA16A06-E	330-8674-020
	gold (0,8 μm)	0,50 - 1,00 mm ²	APK-PA16G10-E	330-8674-025

Individual Wire and 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)

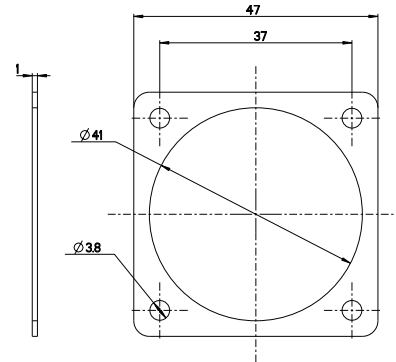


Dimensions shown in mm
Specifications and dimensions subject to change

Flange Gasket



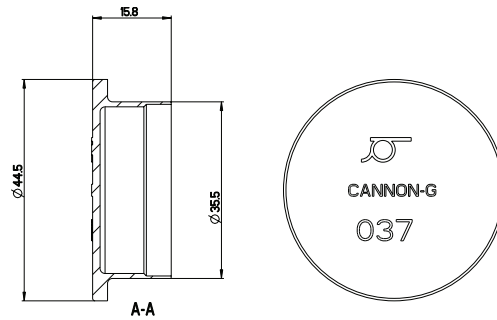
Order Number: 075-8566-004



Dust Cap for Plug



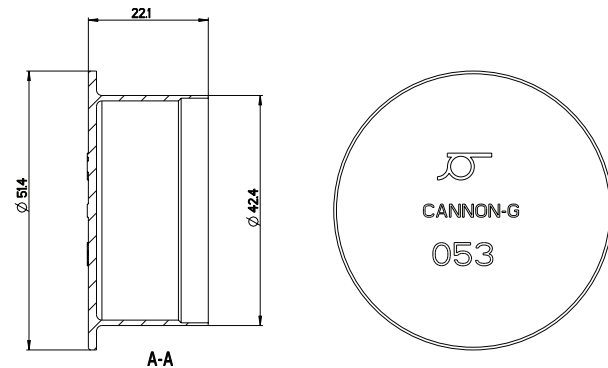
Order Number: 025-8636-037



Dust Cap for Receptacle



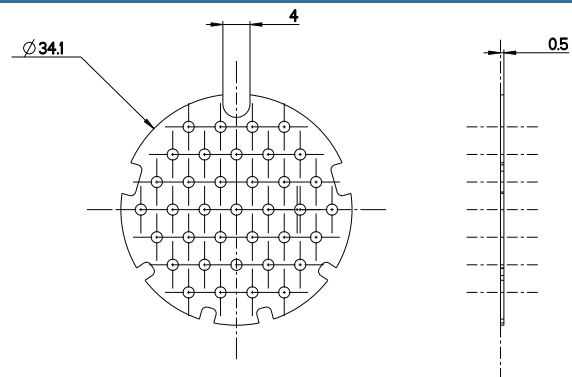
Order Number: 025-8636-053



Alignment Disc 37-way

Alignment disc for 37-way Flange Receptacle

Order Number: 052-8509-004

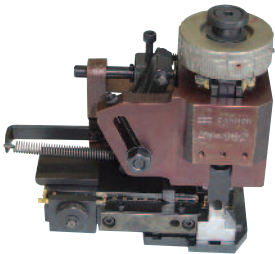


Hand Crimp Tool for Stamped and Formed Contacts



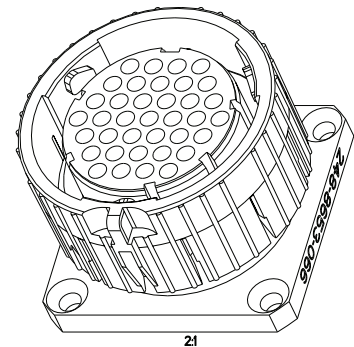
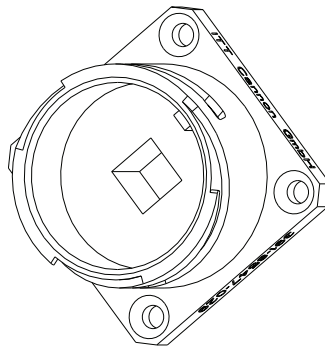
Contact	Hand Tool Order No.	Crimp Die
0,35 - 0,75 mm ²	121586-5156	Consult Factory
0,75 - 1,5 mm ²	121586-5156	121586-5197

Mini Applicator for Stamped and Formed Contacts



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

Support Tools, 37-way



Designation	Order No.
Assembly Adaptor for plug MA-APD-37-R	331-8547-029
Assembly Adaptor for receptacle MA-APD-37-P	248-8653-066
Replacement Nut for MA-APD-37P	217-8516-005
Contact Insertion Tool CIT-APK-16-15-C	121586-5200
Contact Extraction Tool CET-APK-16-C	121586-5195

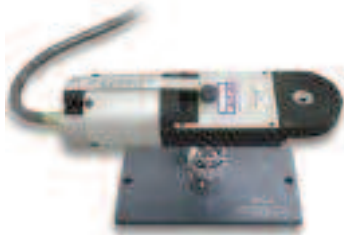
Hand Crimp Tool for Press-in Contacts



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