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## Circular DIN Connectors

### Circular DIN Connector Overview

The Circular DIN connectors are designed to meet the requirements of the DIN 72585/ISO 15170 standards. They feature a coupling ring for mating. Circular DIN connectors are suitable for in-line, flange mount, or PCB applications.



### APPLICABLE PRODUCT DOCUMENTATION

Additional documentation is available for assistance with Circular DIN products. The following TE document numbers may be helpful:

1654286-3 (Catalog Section)

108-18621 (Product Specification)

114-18255 (Application Specification)

### CIRCULAR DIN CONNECTOR PERFORMANCE SPECIFICATIONS

<b>Current:</b>	Up to 40 amps
<b>Temperature:</b>	Operating at temperatures -40°C to +120°C for plastic parts, short term up to +140°C defined in the standard ISO 15170
<b>Durability:</b>	20 cycles, max. testing requirement in the standard ISO 15170, former DIN 72585
<b>Insulation Resistance:</b>	No flash over or breakdown between every two contacts or between every contact and outer contour of the housing permitted at 1000 volts AC and 50 or 60 Hz for 60 seconds.
<b>Immersion:</b>	No ingress of water is allowed, acc. to DIN 40050-9 IPX7, IPX9K
<b>Vibration:</b>	According to standard ISO 15170, former DIN 72585
<b>Dielectric Withstanding Voltage:</b>	No flash over or breakdown between every two contacts or between every contact and outer contour of the housing permitted at 1000 volts AC and 50 or 60 Hz for 60 seconds.

### MATERIAL SPECIFICATIONS

<b>Flange Seal:</b>	Silicone rubber
<b>Housing:</b>	Glass filled PBT and PA

# Circular DIN Connectors

## DIMENSIONS



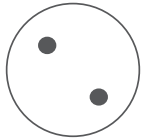
**Circular DIN Socket Housing**

**Circular DIN Pin Housing**

Cavity	Overall Length A	Overall Height ØB	Overall Length C	Overall Height ØD
2	1.22 (31.0)	1.29 (32.8)	1.73 (44.0)	1.34 (34.0)
3	1.22 (31.0)	1.29 (32.8)	1.73 (44.0)	1.34 (34.0)
4	1.22 (31.0)	1.29 (32.8)	1.73 (44.0)	1.34 (34.0)

Dimensions are for reference only.

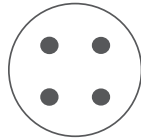
## CONFIGURATIONS



**2 Positions**  
2 size 2.5 mm



**3 Positions**  
3 size 2.5 mm



**4 Positions**  
4 size 2.5 mm

## Circular DIN Connectors

### ORDERING INFORMATION

Position	Keying Type	Housing Color	Socket Housing	Pin Housing	PCB Header Vertical
2	1	Black	1-967325-3	1-967402-3	1394324-1 (tin)
			1-968968-3 (secondary locking)		
	2	Gray	2-967325-3	2-967402-3	-
			2-968968-3		-
3	Green	3-967325-3	-	-	
4	Blue	4-967325-3	-	-	
3	1	Black	1-967325-2	1-967402-2	1394324-4
			1-968968-2 (secondary locking)		
	2	Gray	2-967325-2	-	-
	3	Green	3-967325-2	-	-
4	Blue	4-967325-2	-	-	
4	1	Black	1-967325-1	1-967402-1	1241598-1 (no ventilation disk)
			1-968968-1 (secondary locking)		1394324-2 (tin)
					1394324-3 (gold)
			1703780-1 (ferrite disk)		
	2	Gray	2-967325-1	2-967402-1	-
	3	Green	3-967325-1	3-967402-1	-
4	Blue	4-967325-1	4-967402-1	-	

### Accessories

Covers, backshells, and mounting rings are accessory items available for use with Circular DIN connectors. These accessories cover design requirements by assisting with mounting, providing additional protection, and offering increased aesthetics.

### COVERS



Description	Color	Part Number
Front cover for socket housing 967325, suitable for IPX9K	Black	185636-1
Front cover for pin housing 967402, with ring		1394277-1
Front cover for pin housing 967402, without ring		1394277-2

## Circular DIN Connectors

### BACKSHELLS



Description	Color	Part Number
Right-angle adapter with universal clamp	Black	965576-1
Vertical adapter with universal clamp	Black	965784-1
Right-angle adapter for NW 7.5 mm diameter corrugated tubing	Black	185793-1
Right-angle adapter for NW 8.5 mm diameter corrugated tubing	Black	965577-1
Right-angle adapter for NW 10 mm diameter corrugated tubing	Black	965783-1
Vertical adapter for NW 7.5 mm diameter corrugated tubing	Black	185792-1
Vertical adapter for NW 8.5 mm diameter corrugated tubing	Black	965785-1
Vertical adapter for NW 10 mm diameter corrugated tubing	Black	965786-1
Right-angle adapter 4 position for hose	Black	1534789-1
Vertical adapter 4 position for hose	Black	1534791-1
Vertical adapter 4 position for jacketed cable 5.2-6.5 mm	Black	1418916-1
Vertical adapter 4 position for jacketed cable 6.0-9.5 mm	Black	1418917-1
Right-angle adapter 4 position for jacketed cable 5.2-6.5 mm	Black	1418918-1
Right-angle adapter 4 position for jacketed cable 6.0-9.5 mm	Black	1418919-1

### MOUNTING RING

Description	Color	Part Number
Mounting ring for pin housing	Black	965687-1

### Contacts

The Circular DIN connectors commonly use the 2.5 mm round, two-piece stamped & formed contact system.

### 2.5 MM CONTACT PERFORMANCE SPECIFICATIONS

#### Durability

Maximum mating cycles  
 10 (tin)  
 50 (silver)  
 100 (gold)

#### Current Rating

Contact Size                      Max. Current  
 2.5 mm                              up to 40 amps

#### Contact Retention(in housing)

Contact Size                      Min. Load  
 2.5 mm                              > 90 N  
 with secondary retention up to 100 N

#### Crimp Tensile Strength

Contact Size                      Tensile Strength  
 .35 mm<sup>2</sup>                              ≥ 50 N  
 .5 mm<sup>2</sup>                                ≥ 60 N  
 1.0 mm<sup>2</sup>                              ≥ 100 N  
 1.5 mm<sup>2</sup>                              ≥ 150 N  
 2.5 mm<sup>2</sup>                              ≥ 200 N  
 4.0 mm<sup>2</sup>                              ≥ 250 N

## Circular DIN Connectors

### 2.5 MM STAMPED & FORMED CONTACTS FOR CIRCULAR DIN

Stamped & Formed Pins

Size	Pin Part Numbers				Wire Size (mm <sup>2</sup> )	Insulation Diameter FLR (mm)	Finish
	Strip Form	Package Quantity	Loose Piece	Package Quantity			
2.5 mm	929963-1	3500	962967-1	500	0.5-1.0	1.4-2.1	Tin plated
	929963-8	3500	962967-8	500			Gold plated
	1-929963-0	3500	1-962967-0	500			
	929964-1	3500	962968-1	500	≥1.0-2.5	1.9-3.0	Tin plated
	1-929964-0	3500	1-962968-0	500			Gold plated
	929965-1	2500	962969-1	500	≥2.5-4.0	2.7-3.6	Tin plated

Stamped & Formed Pins with Single Wire Sealing System

Size	Pin Part Numbers				Wire Size (mm <sup>2</sup> )	Insulation Diameter FLR (mm)	Finish
	Strip Form	Package Quantity	Loose Piece	Package Quantity			
2.5 mm	929966-1	3500	962970-1	500	0.2-0.4	1.2-2.1	Tin plated
	929966-7	3500	962970-7	500			Silver plated
	929967-1	3000	962971-1	500	0.5-1.0	1.2-2.1	Tin plated
	929967-4	3000	962971-4	500			
	929967-7	3000	962971-7	500			Silver plated
	1-929967-4	3000	1-962971-4	500			
	929967-8	3000	962971-8	500			Gold plated
	1-929967-0	3000	1-962971-0	500			
	929968-1	3000	962972-1	500	≥1.0-2.5	2.2-3.0	Tin plated
	929968-4	3000	962972-4	500			
	929968-7	3000	962972-7	500			Silver plated
	929968-8	3000	962972-8	500			Gold plated



## Circular DIN Connectors

### Stamped & Formed Sockets

Size	Socket Part Numbers				Wire Size (mm <sup>2</sup> )	Insulation Diameter FLR (mm)	Finish
	Strip Form	Package Quantity	Loose Piece	Package Quantity			
2.5 mm	929969-1	3000	962976-1	500	0.2-0.4	1.15-1.6	Tin plated
	929970-1	3000	962977-1	500	0.5-1.0	1.4-2.1	Tin plated
	929970-7	3000	962977-7	500			Silver plated
	929970-8	3000	962977-8	500			Gold plated
	929971-1	3000	962978-1	500	≥1.0-2.5	1.9-3.0	Tin plated
	929971-7	3000	962978-7	500			Silver plated
	929971-8	3000	962978-8	500			Gold plated
	929972-1	3000	962979-1	500	≥2.5-4.0	2.7-3.0	Tin plated

### Stamped & Formed Sockets with Single Wire Sealing System

Size	Socket Part Numbers				Wire Size (mm <sup>2</sup> )	Insulation Diameter FLR (mm)	Finish
	Strip Form	Package Quantity	Loose Piece	Package Quantity			
2.5 mm	929973-1	3000	962980-1	500	0.2-0.4	1.2-2.1	Tin plated
	929974-1	3000	962981-1	500	0.5-1.0	1.2-2.1	Tin plated
	929974-4	3000	962981-4	500			Gold plated
	929974-8	3000	962981-8	500			Silver plated
	929974-7	3000	962981-7	500			
	1-929974-4	3000	1-962981-4	500	≥1.0-2.5	2.2-3.0	
	929975-1	3000	962982-1	500			Tin plated
	929975-4	3000	962982-4	500			
	929975-8	3000	962982-8	500			Gold plated
	929975-7	3000	962982-7	500			Silver plated



## Circular DIN Connectors

### WIRE SEALS

Wire seals are required for connectors without an integrated rear seal to maintain an environmental seal.

Contact Size	Insulation Diameter (mm)	Color	Part Number	Package Quantity
2.5 mm	1.2-2.1 FLR	Gray	828920-1	5000
	2.2-3.0 FLR	Violet	828921-1	

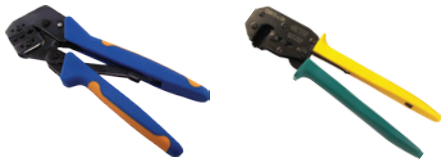
### SEALING PLUGS

Open cavities provide pathways for contaminants to enter the connectors. To maintain seal integrity, any unused cavity must be filled with the appropriate size sealing plug.

Contact Size	Wire Size	Color	Part Number	Package Quantity
2.5 mm	up to 3.0 mm	Natural	828922-1	10,000
		Green	828922-2	
	up to 3.7 mm	Natural	828986-1	

### Tooling

Tools are specific to the contact style. To create a proper crimp and achieve the highest performance specifications, contacts must be crimped with the recommended tooling.



PRO-CRIMPER III      CERTI-LOK

### HAND TOOL FOR 2.5 MM CONTACTS

Pin Strip Form	Pin Loose Piece	Socket Strip Form	Socket Loose Piece	Tool P/N	Description
1-929967-0 1-929967-4 929967-1 929967-4 929967-7 929967-8	1-926971-0 1-926971-4 962971-1 962971-4 962971-7 962971-8	1-929974-4 929974-1 929974-4 929974-7 929974-8 929975-1 929975-4 929975-7 929975-8	1-962981-4 962981-1 962981-4 962981-7 962981-8 962982-1 962982-4 962982-7 962982-8	58606-1	PRO-CRIMPER III hand tool and die set assembly
1-929964-0 929964-1	1-962968-0 962968-1	929971-1 929971-7 929971-7	962978-1 962978-7 962978-8	734285-2	CERTI-LOK hand tool with fixed die

## Circular DIN Connectors

### AUTOMATED TOOLING FOR 2.5 MM CONTACTS



OCEAN end  
feed applicator



OCEAN side  
feed applicator

Pin Strip Form	Socket Strip Form	Applicator P/N	Description
1-929963-0 929963-1 929963-8	929970-1 929970-7 929970-8	1426121-1	OCEAN side feed applicator that crops the terminal strip, for use in lead-maker
		1426121-2	OCEAN side feed applicator that crops the terminal strip, for use in bench press
		1426121-6	OCEAN side feed applicator that does not crop the terminal strip, for use in lead-maker
		1528689-1	OCEAN side feed applicator with fine adjust that crops the terminal strip, for use in lead-maker
		1528689-2	OCEAN side feed applicator with fine adjust that crops the terminal strip, for use in bench press
		1528689-6	OCEAN side feed applicator that does not crop the terminal strip, for use in lead-maker
929966-1 929966-7	929973-1	2151732-1	OCEAN end feed applicator with mechanical feed
		2151732-2	OCEAN end feed applicator with pneumatic feed
1-929964-0 929964-1	929971-1 929971-7 929971-8	2266503-1	OCEAN end feed applicator with mechanical feed
		2266503-2	OCEAN end feed applicator with pneumatic feed
929965-1	929972-1	1426425-1	OCEAN side feed applicator that crops the terminal strip, for use in lead-maker
		1426425-2	OCEAN side feed applicator that crops the terminal strip, for use in bench press
		1426425-6	OCEAN side feed applicator that does not crop the terminal strip, for use in lead-maker

Note: Applicators with additional feed styles are available, contact your representative

## Circular DIN Connectors

### AUTOMATED TOOLING FOR 2.5 MM CONTACTS (CONTINUED)

Pin Strip Form	Socket Strip Form	Applicator P/N	Description
1-929967-0 1-929967-4 929967-1 929967-4 929967-7 929967-8	1-929974-4 929974-1 929974-4 929974-7 929974-8	2151139-1	OCEAN end feed applicator with mechanical feed
		2151139-1	OCEAN end feed applicator with pneumatic feed
-	929975-1 929975-4 929975-7 929975-8	2151345-1	OCEAN end feed applicator with mechanical feed
		2151345-2	OCEAN end feed applicator with pneumatic feed

Note: Applicators with additional feed styles are available, contact your representative

### EXTRACTION TOOL FOR 2.5 MM CONTACTS



Part Number	Description
1-1579007-8	Contact extraction tool for 2.5 mm contact system