



DEUTSCH 369 Series Connectors

High-Reliability, Lightweight,
Compact Connectors Suited to
Harsh Aerospace Environments

The logo for iS Rayfast, featuring a stylized 'iS' followed by the word 'Rayfast' in a bold, sans-serif font.

DEUTSCH 369 Series Inline Connectors

High-Reliability, Lightweight, Compact Connectors



Versatile and Compact

DEUTSCH 369 series connectors from TE Connectivity (TE) have been designed to meet today's tightening industry regulations and Electrical Wiring Interconnect Systems (EWIS) best practices. Based on EN4165/ARINC 809 connectors, the lightweight, compact 369 series connectors, available in 3, 6, and 9 positions standard, are suited for applications where fewer contacts are needed in each connector and shielding is unnecessary.

Easy to Use

Installation and maintenance of cabling is simple, quick, and reliable with a range of individually color-coded keying options. Each mated half of the connector can be configured with either male or female contacts, doubling the keying configurations available and electrically protecting contacts on the powered-side of a system.

The connectors' rectangular shape permits space-efficient stacking, while cable ties allow versatile mounting without the need for additional fasteners. The scoop-proof interface is particularly suitable for blind-mating or low visibility conditions. A button-latching mechanism secures the mated connectors.

Sealed and Safe

The connectors are fully sealed for use in areas with high levels of moisture. High-performance composite materials help meet the low smoke, toxicity and flammability requirements of the aerospace industry.

Ideal for Cabin Applications

The 369 series connectors are suitable for commercial aerospace cabin applications, such as:

- Cabin lighting
- Oxygen mask systems
- Galley systems
- Seat actuation systems

The connectors also provide a solution for harsh environment applications, such as UAVs and commercial and military helicopter wiring systems.

BACC QUALIFIED

- Qualified BACC65CP and BACC65CR

RUGGED

- Low smoke, toxicity and flammability
- Excellent temperature, vibration and fluid resistance
- Triple barrier wire seals
- Cork-in-bottle interface seal

WEIGHT AND SPACE SAVINGS

- Rectangular shape saves space
- Lightweight composite materials
- No fasteners to mount

ROBUST DESIGN

- Based on existing ARINC 809/EN4165
- AS39029/EN3155 contacts

CONVENIENT

- Color-coded keyed shells
- Scoop-proof interface for blindmating

SECURE

- Cable tie "locks out" the mating button

*See te.com for 3D models of our 369 family of products

TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH
SEACON Phoenix | LL ROWE | Phoenix Optix | AFP | SEACON

Empower Engineers to Solve Problems, Moving the World Forward.



MECHANICAL CHARACTERISTICS

- **Operating Temperature:** -55°C to +175°C
- **Fluid Resistance:** EN2591-315
- **IP Rating:** IP67
- **Sealing:** 12.1 kPa (1.75 psi) @ 15 km (50,000 ft)
- **Vibration:** EN2591-403, Method B, Level E, 8 hr/axis
- **Shock:** EN2591-402, Method A, severity 100
- **Smoke and Toxicity:** FAR 25.853, Appendix F; ABD0031
- **Flammability:** FAR 25.853 Appendix F; EN2591-317
- **Durability:** 500 mating cycles

Keying Color Codes



MATERIALS

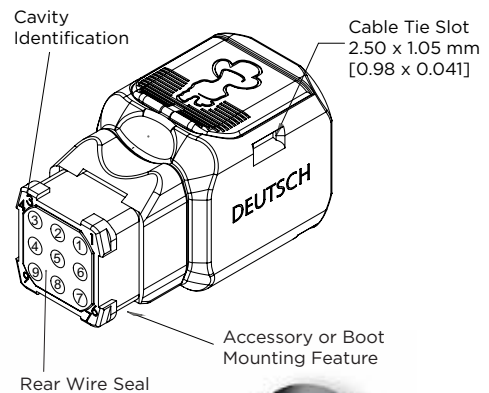
- **Shells, Insulators and Backshells:** PEI/PEEK
- **Contacts:** Copper alloy, gold plated
- **Seals:** Fluorosilicone rubber
- Designed to meet the requirements of RoHS

ELECTRICAL CHARACTERISTICS

- **Dielectric Withstanding Voltage:** 1500 V_{rms} mated, <2 mA leakage
- **Operating Current:** 5 A

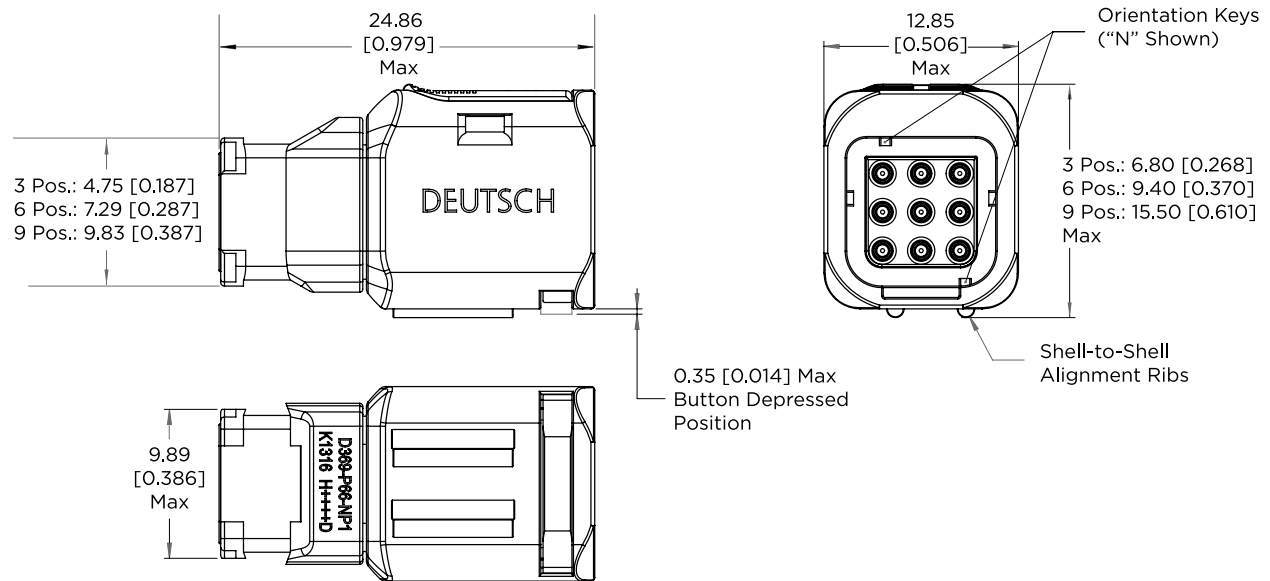
Instruction Documents

- 408-163008, 408-163009, 408-32194





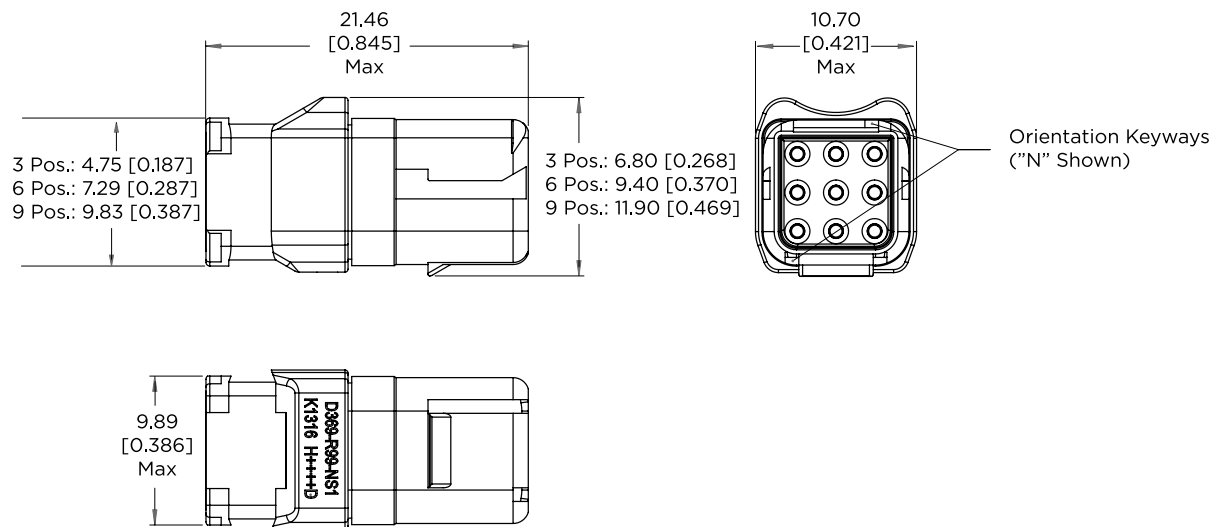
Plug Connector



Shell Size	Mass*
3	1.90 g [0.067 oz]
6	2.40 g [0.085 oz]
9	3.00 g [0.105 oz]

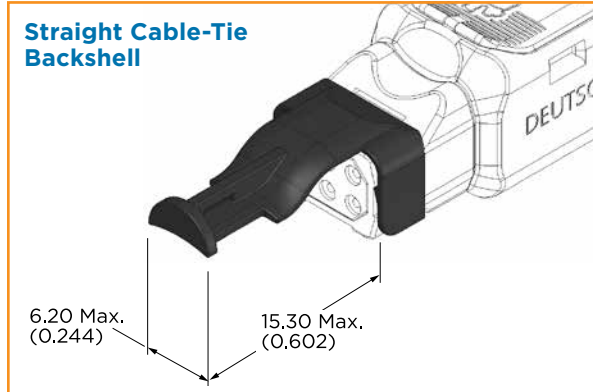
*Mass based on plug less male contact configuration
 Mass for 1 male contact = 0.073 g [0.0026]
 Recommended cable-tie: 2.5 mm [0.10"]

Receptacle



Shell Size	Mass*
3	1.00 g [0.035 oz]
6	1.50 g [0.053 oz]
9	2.00 g [0.070 oz]

*Mass based on receptacle less female contact configuration
 Mass for 1 female contact = 0.112 g [0.004 oz]



Shell Size	Part No.	Mass
3	D369-STB-3	0.24 g [0.85 oz]
6	D369-STB-6	0.25 g [0.88 oz]
9	D369-STB-9	0.28 g [0.99 oz]

TE Part Numbering System

- FAMILY**
D369
- SHELL TYPE**
P Plug
R Receptacle
- SHELL SIZE**
3, 6, 9
- NUMBER OF CONTACTS**
3, 6, 9
- KEYING**
N Normal
A, B, C, D
- INSERT**
P Pin
S Socket
- CONTACTS**
0 Without Contacts
1 With Size 22 Contacts
3 With Size 20/22 Contacts

D369 - P 6 6 - N P 0

BACC Part Numbering System

- FAMILY**
BACC65CP Plug
BACC65CR Receptacle
- SHELL SIZE**
1 3 Position
2 6 Position
3 9 Position
- INSERT**
P Pin
S Socket
- KEYING**
N Normal
A, B, C, D

BACC65CP 2 P N

D369-P66-NP0 = BACC65CP2PN

6-Position Plug for Pin (Male) Contacts, Normal Keying, Supplied without Contacts

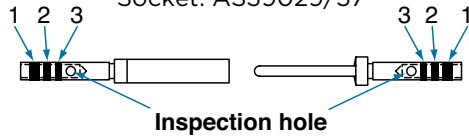


ELECTRICAL CONTACTS

Color Coding

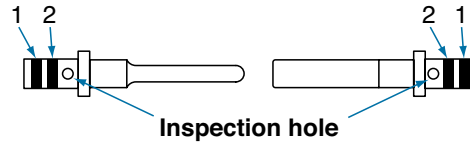
Pin: AS39029/58

Socket: AS39029/57



Color Coding

Pin and Socket: EN3155



Contacts



Contact Option	Contact Size	Wire Range		Type	Part No.				Color Bands	
		AWG	mm ²		TE	EN	MIL	BACC	MIL	EN
1	22	26 - 22 AWG	0.15 - 0.40	Pin	38941-22L	EN3155-070M2222	M39029/58-360	BACC47GC	Orange- Blue-Black	Green- Green
				Socket	38946-22L	EN3155-071F2222	M39029/57-354	—	Orange- Green-Yellow	
3	20/22	24 - 20 AWG	0.25 - 0.60	Pin	182-0860-22	EN3155-070M2220	—	—	—	Red- Green
				Socket	182-0862-22	EN3155-071F2220	—	—	—	

Tooling

		
Insertion/Extraction Tool M81969/14-01	Crimp Tool M22520/2-01 TE Part No. 601966-1	Crimp Positioners
		Pin Contact M22520/2-09 TE Part No. 601966-6
		Socket Contact M22520/2-06 TE Part No. 601966-4

Cavity Identification

(Plug or Receptacle. Viewed from Rear of Connector)





Part Numbers

No. of Positions	Housing Type	Insert	Part No.		
			Without Contacts		With Contacts
			TE	BACC	TE
N-Key (Black Color Code)					
3	Plug	Pin	D369-P33-NP0	BACC65 CP 1PN	D369-P33-NP*
		Socket	D369-P33-NS0	BACC65 CP 1SN	D369-P33-NS*
	Receptacle	Pin	D369-R33-NP0	BACC65 CR 1PN	D369-R33-NP*
		Socket	D369-R33-NS0	BACC65 CR 1SN	D369-R33-NS*
6	Plug	Pin	D369-P66-NP0	BACC65 CP 2PN	D369-P66-NP*
		Socket	D369-P66-NS0	BACC65 CP 2SN	D369-P66-NS*
	Receptacle	Pin	D369-R66-NP0	BACC65 CR 2PN	D369-R66-NP*
		Socket	D369-R66-NS0	BACC65 CR 2SN	D369-R66-NS*
9	Plug	Pin	D369-P99-NP0	BACC65 CP 3PN	D369-P99-NP*
		Socket	D369-P99-NS0	BACC65 CP 3SN	D369-P99-NS*
	Receptacle	Pin	D369-R99-NP0	BACC65 CR 3PN	D369-R99-NP*
		Socket	D369-R99-NS0	BACC65 CR 3SN	D369-R99-NS*
A-Key (Red Color Code)					
3	Plug	Pin	D369-P33-AP0	BACC65 CP 1PA	D369-P33-AP*
		Socket	D369-P33-AS0	BACC65 CP 1SA	D369-P33-AS*
	Receptacle	Pin	D369-R33-AP0	BACC65 CR 1PA	D369-R33-AP*
		Socket	D369-R33-AS0	BACC65 CR 1SA	D369-R33-AS*
6	Plug	Pin	D369-P66-AP0	BACC65 CP 2PA	D369-P66-AP*
		Socket	D369-P66-AS0	BACC65 CP 2SA	D369-P66-AS*
	Receptacle	Pin	D369-R66-AP0	BACC65 CR 2PA	D369-R66-AP*
		Socket	D369-R66-AS0	BACC65 CR 2SA	D369-R66-AS*
9	Plug	Pin	D369-P99-AP0	BACC65 CP 3PA	D369-P99-AP*
		Socket	D369-P99-AS0	BACC65 CP 3SA	D369-P99-AS*
	Receptacle	Pin	D369-R99-AP0	BACC65 CR 3PA	D369-R99-AP*
		Socket	D369-R99-AS0	BACC65 CR 3SA	D369-R99-AS*

* Replace * with 1 for Size 22 contacts and 3 for Size 20/22 contacts



369 Connectors Can Be Easily Secured with Cable Ties, Eliminating the Need for Additional Hardware or Cutouts



Part Numbers

No. of Positions	Housing Type	Insert	Part No.		
			Without Contacts		With Contacts
			TE	BACC	TE
B-Key (Blue Color Code)					
3	Plug	Pin	D369-P33-BP0	BACC65 CP 1PB	D369-P33-BP*
		Socket	D369-P33-BS0	BACC65 CP 1SB	D369-P33-BS*
	Receptacle	Pin	D369-R33-BP0	BACC65 CR 1PB	D369-R33-BP*
		Socket	D369-R33-BS0	BACC65 CR 1SB	D369-R33-BS*
6	Plug	Pin	D369-P66-BP0	BACC65 CP 2PB	D369-P66-BP*
		Socket	D369-P66-BS0	BACC65 CP 2SB	D369-P66-BS*
	Receptacle	Pin	D369-R66-BP0	BACC65 CR 2PB	D369-R66-BP*
		Socket	D369-R66-BS0	BACC65 CR 2SB	D369-R66-BS*
9	Plug	Pin	D369-P99-BP0	BACC65 CP 3PB	D369-P99-BP*
		Socket	D369-P99-BS0	BACC65 CP 3SB	D369-P99-BS*
	Receptacle	Pin	D369-R99-BP0	BACC65 CR 3PB	D369-R99-BP*
		Socket	D369-R99-BS0	BACC65 CR 3SB	D369-R99-BS*
C-Key (Green Color Code)					
3	Plug	Pin	D369-P33-CP0	BACC65 CP 1PC	D369-P33-CP*
		Socket	D369-P33-CS0	BACC65 CP 1SC	D369-P33-CS*
	Receptacle	Pin	D369-R33-CP0	BACC65 CR 1PC	D369-R33-CP*
		Socket	D369-R33-CS0	BACC65 CR 1SC	D369-R33-CS*
6	Plug	Pin	D369-P66-CP0	BACC65 CP 2PC	D369-P66-CP*
		Socket	D369-P66-CS0	BACC65 CP 2SC	D369-P66-CS*
	Receptacle	Pin	D369-R66-CP0	BACC65 CR 2PC	D369-R66-CP*
		Socket	D369-R66-CS0	BACC65 CR 2SC	D369-R66-CS*
9	Plug	Pin	D369-P99-CP0	BACC65 CP 3PC	D369-P99-CP*
		Socket	D369-P99-CS0	BACC65 CP 3SC	D369-P99-CS*
	Receptacle	Pin	D369-R99-CP0	BACC65 CR 3PC	D369-R99-CP*
		Socket	D369-R99-CS0	BACC65 CR 3SC	D369-R99-CS*
D-Key (Yellow Color Code)					
3	Plug	Pin	D369-P33-DP0	BACC65 CP 1PD	D369-P33-DP*
		Socket	D369-P33-DS0	BACC65 CP 1SD	D369-P33-DS*
	Receptacle	Pin	D369-R33-DP0	BACC65 CR 1PD	D369-R33-DP*
		Socket	D369-R33-DS0	BACC65 CR 1SD	D369-R33-DS*
6	Plug	Pin	D369-P66-DP0	BACC65 CP 2PD	D369-P66-DP*
		Socket	D369-P66-DS0	BACC65 CP 2SD	D369-P66-DS*
	Receptacle	Pin	D369-R66-DP0	BACC65 CR 2PD	D369-R66-DP*
		Socket	D369-R66-DS0	BACC65 CR 2SD	D369-R66-DS*
9	Plug	Pin	D369-P99-DP0	BACC65 CP 3PD	D369-P99-DP*
		Socket	D369-P99-DS0	BACC65 CP 3SD	D369-P99-DS*
	Receptacle	Pin	D369-R99-DP0	BACC65 CR 3PD	D369-R99-DP*
		Socket	D369-R99-DS0	BACC65 CR 3SD	D369-R99-DS*

* Replace * with 1 for Size 22 contacts and 3 for Size 20/22 contacts

DEUTSCH 369 Series Panel-Mount Connectors

High-Reliability, Lightweight, Compact Connectors

EASY TO INSTALL

- Integrated panel latches for mounting
- No fasteners required
- Simple push-in mounting
- One panel hole only

VERSATILE

- Replaceable gaskets accommodate various panel thicknesses and help prevent rattling
- Easily removed for maintenance

SPACE SAVING

- Compact design
- Tight mounting pitch of multiple connectors
- No additional space required for fasteners

WEIGHT SAVING

- Composite shells
- No additional fasteners required

RUGGED

- Low smoke, toxicity and flammability
- Excellent temperature, vibration and fluid resistance
- Triple barrier wire seals
- Cork-in-bottle interface seal

CONVENIENT

- Compatible with existing 369 series connectors
- Uses standard 369 wire strain-relief backshell
- Uses AS39029 Size 22 contacts

RELIABLE

- Positive button latching mechanism with audible click
- 100% scoop proof to minimize contact damage and allow blindmating



Fast, Easy Panel Mounting

DEUTSCH 369 series panel-mount connectors from TE Connectivity (TE), an extension to the existing 369 series product line, allow easy, fast mounting to an LRU (line-replaceable unit) panel, bracket, chassis, or frame. The integrated panel latches simply clip into a rectangular cut-out and require no additional fasteners or fixings. The latches also allow later removal from the panel. Suitable for multiple panel thicknesses, the connectors feature an anti-rattle panel gasket.

The connectors' rectangular shape permits space-efficient stacking, and remain fully compatible with standard 369 series connectors.

A button-latching mechanism secures the mated connectors.

Sealed and Safe

The electrical interfaces are fully sealed using cork-in-bottle and triple wire seal technology for use in areas with high levels of moisture. High-performance composite materials help meet the low smoke, toxicity and flammability requirements of the aerospace industry.

Ideal for Cabin Applications

369 series connectors are particularly suitable for commercial aerospace cabin applications, such as:

- Lighting
- Seat wiring and actuation
- Passenger service units
- IFE (in-flight entertainment)
- Electronic window shutters
- Galley



MATERIALS

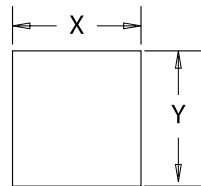
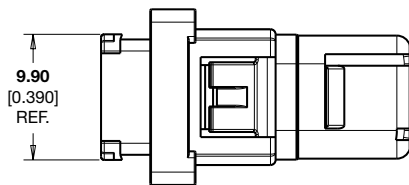
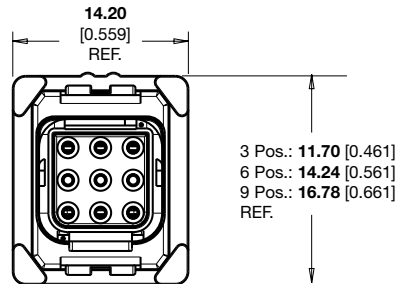
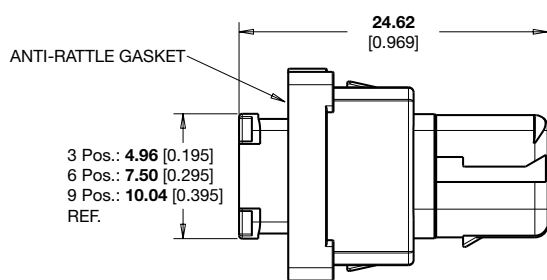
- **Seals and Panel Gasket:** Fluorosilicone
- **Body and Insert:** PEI
- **Contacts:** Copper alloy, gold plated

ELECTRICAL

- **Insulation Resistance:** ≥5000 MΩ
- **Dielectric Withstand:** 1500 V_{rms}, <2mA leakage
- **Operating Current:** 5 A

MECHANICAL/ENVIRONMENTAL

- **Temperature Range:** -55°C to +175°C
- **IP Rating:** IP67
- **Sealing:** 12.1 kPa (1.75 psi) @ 15 km (50,000 ft)
- **Vibration:** EN2591-403, Method B, Level E, 8 hr/axis
- **Shock:** EN2591-402, Method A, Severity 100
- **Durability:** 500 mating cycles min.
- **Fluid Resistance:** EN2591-315
- **Flammability, Smoke, Toxicity:** FAR 25.853 Appendix F



Recommended Panel Cutout

Connector Size	X ±0.08 (0.003)	Y ±0.03 (0.001)
3		8.95 (0.352)
6	10.85 (0.420)	11.49 (0.452)
9		14.03 (0.552)

FAMILY
D369

PANEL THICKNESS, mm (inch)

- A** 1.27 (0.050)
- B** 1.60 (0.063)
- C** 2.03 (0.080)

SHELL SIZE
3, 6, 9

NUMBER OF CONTACTS
3, 6, 9

KEYING

- N** Normal
- A, B, C, D**

INSERT

- P** Pin
- S** Socket

CONTACTS

- 0** Without Contacts
- 1** With Crimp Contacts
- 3** With Size 20/22 Contacts

D369 - A 3 3 - N P 1



Tooling

Connector panel-extraction tool: Part No. 612184-369

For information on contacts, please refer to Contacts table on page 6.

DEUTSCH 369 Series PCB-Mount Connectors

High-Reliability, Lightweight, Compact Connectors

COMPATIBLE

- Fully compatible with 369 connector family
- Choice of in-line or panel-mount versions
- Compatible with other connectors meeting Boeing BACC65CP/CR

SPACE SAVING

- Compact, high-density connectors
- Small PCB footprint
- Rectangular design enables close mounting pitch with adjacent connectors
- No fasteners required
- Eliminates flying leads for connectivity to board

EASY TO INSTALL

- Mechanically self-retaining during soldering of in-line connectors
- No additional solder fixtures required
- Easy washout for post-soldering cleaning

RELIABLE

- Mechanical location feature reduces mechanical stress on solder joints

APPLICATIONS

- Commercial and Business Aircraft
 - Lighting
 - Seat Wiring and Actuation
 - Passenger Service Units
 - On-board Entertainment Systems
 - Electronic Window Shutters
 - Galley
- Helicopter Lighting
- Military Land and Aerospace
- Mass Transit Lighting



DEUTSCH 369 series connectors from TE Connectivity (TE) have been designed to meet today's tightening industry regulations and Electrical Wiring Interconnect Systems (EWIS) best practices. Based on TE's successful DEUTSCH ARINC 809/EN4165 single module connector, the lightweight, compact 369 series connectors, available in 3, 6, and 9 positions standard, are suited for applications where fewer contacts are needed in each connector and shielding is unnecessary. The 369 series connectors are particularly suited to commercial and business jet aircraft cabin applications. The range now features a variety of options to suit most applications, including in-line and panel-mount versions.

An extension to the popular 369 connector series product line, the 369 PCB connector mounts to a printed-circuit board (PCB). The PCB connectors are available in an in-line version and a panel-mount version.

The PCB connector simply inserts into the board and is then soldered, requiring no additional fasteners or fixings. The end result is an easy and quick-to-mount aerospace-qualified connector with a very compact footprint to help ensure PCB real-estate is maximized.



Specifications

MATERIALS

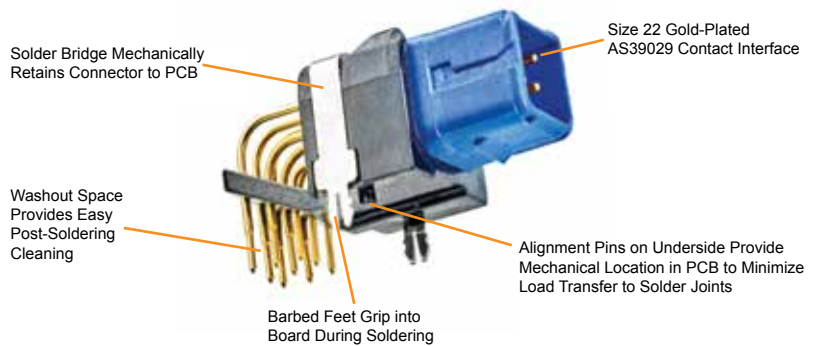
- **Seals and Panel Gasket:** Fluorosilicone
- **Body and Insert:** PEI
- **Contacts:** Copper alloy, gold plated

ELECTRICAL

- **Insulation Resistance:** $\geq 5000 \text{ M}\Omega$
- **Dielectric Withstand:** $1500 \text{ V}_{\text{rms}}$, $< 2\text{mA}$ leakage
- **Operating Current:** 5 A

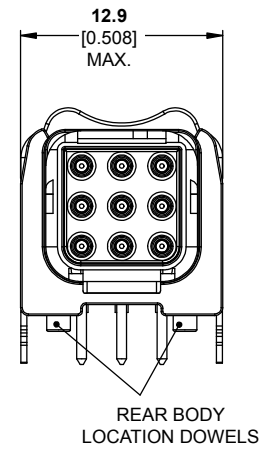
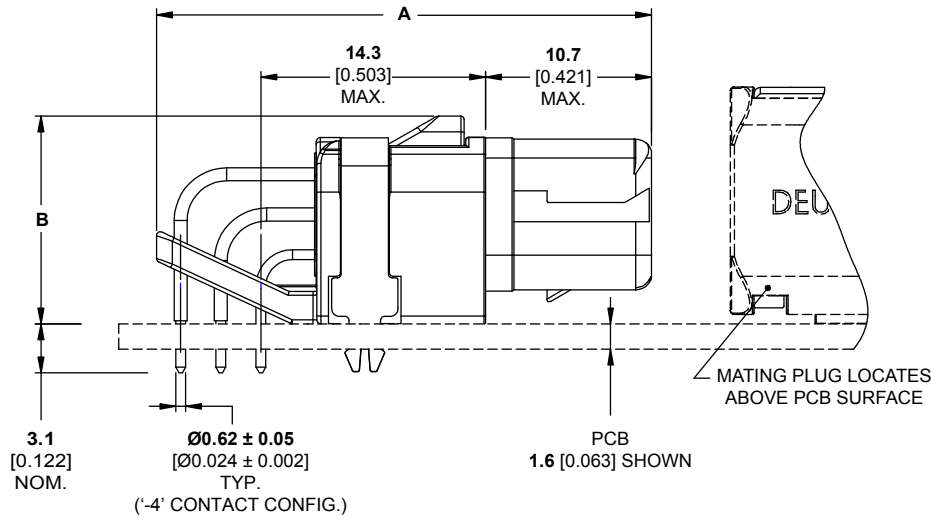
MECHANICAL/ENVIRONMENTAL

- **Temperature Range:** -55°C to $+175^{\circ}\text{C}$
- **IP Rating:** IP67
- **Sealing:** 12.1 kPa (1.75 psi) @ 15 km (50,000 ft)
- **Vibration:** EN2591-403, Method B, Level E, 8 hr/axis
- **Shock:** EN2591-402, Method A, Severity 100
- **Durability:** 500 mating cycles min.
- **Fluid Resistance:** EN2591-315
- **Flammability, Smoke, Toxicity:** FAR 25.853 Appendix F





In-Line PCB Connectors



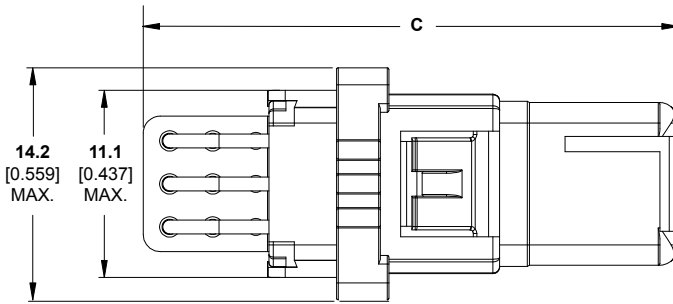
No. of Positions	A Max.	B Max.
3	26.6 1.047	8.4 0.331
6	29.1 1.146	10.9 0.429
9	31.6 1.244	13.4 0.528

Millimeters Inches



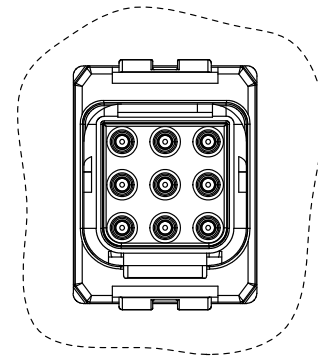
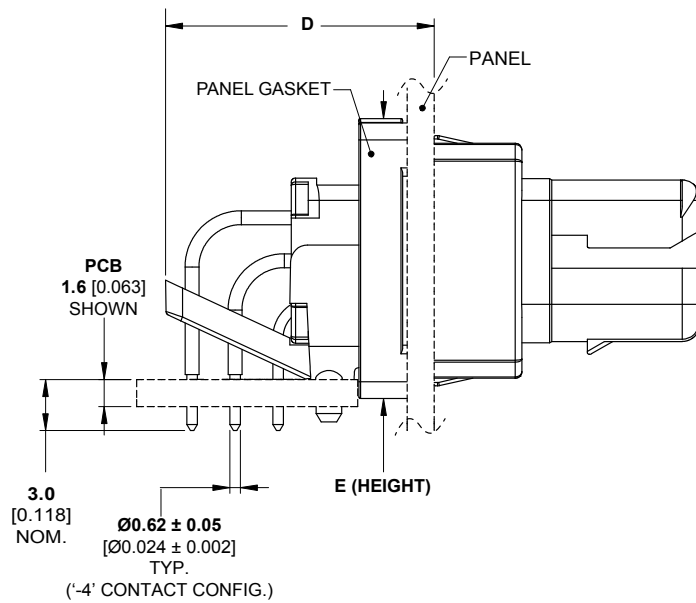


Panel-Mount PCB Connectors



No. of Positions	C Max.	D Max.	E Max.
3	26.8 1.055	11.2 0.441	11.7 0.461
6	29.4 1.157	13.7 0.539	14.2 0.559
9	32.0 1.260	16.3 0.642	16.8 0.661

Millimeters Inches





Part Numbering System

D369 - G 9 9 - N P 4

FAMILY

D369

SHELL STYLE

- A** PCB, Panel Mount, 1.27 mm (0.050")
- B** PCB, Panel Mount, 1.60 mm (0.063")
- C** PCB, Panel Mount, 2.03 mm (0.080")
- G** PCB, In-Line Mount

SHELL SIZE

3, 6, 9

NUMBER OF CONTACTS

3, 6, 9

SHELL KEYING

N, A, B, C, D

CONTACT TYPE

- P** Pin (Male)
- S** Socket (Female)

CONTACT CONFIGURATION

- 4** 90° PCB Mount, Gold Plated
- 5** 90° PCB Mount, Tin Dipped

KEYING COLOR CODES

Connectors are available with five keying options. They are color coded by option:

N Black, **A** Red, **B** Blue, **C** Green, **D** Yellow

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