

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



# **DEUTSCH 369 SERIES CONNECTORS**

Lightweight, Compact Connectors



#### **BACC QUALIFIED**

• Qualified BACC65CP and BACC65CR

#### **RUGGED**

- Low smoke, toxicity and flammability
- Excellent temperature, vibration and fluids 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



# 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 position 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.

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

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Polamco | Raychem | Rochester | DEUTSCH

SEACON Phoenix | L.L. Rowe | Phoenix Optix | SEACON

Get your product to market faster with a smarter, better solution.



#### **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: FAR25.853 Appendix F; EN2591-317

• **Durability:** 500 mating cycles

#### **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:** 1300 V<sub>rms</sub> mated, <2 mA leakage
- Operating Current: 5 A





Blue B-Key



000

Green C-Kev

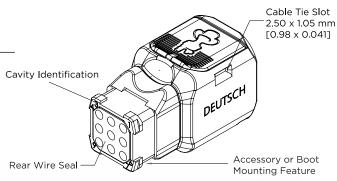
**Black** Normal





Red A-Key

Yellow D-Key

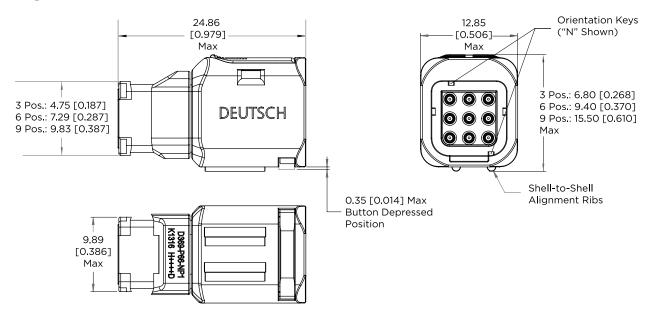








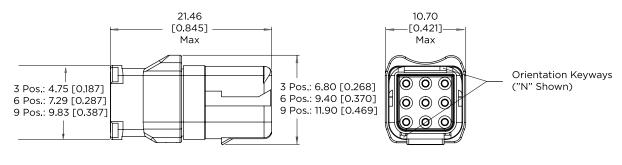
#### **Plug Connector**

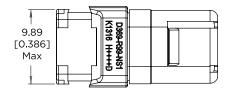


Shell Size	Mass
3	1.90 g [0.067 oz]
6	2.40 g [0.085 oz]
9	3.00 g [0.105 oz]

\*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

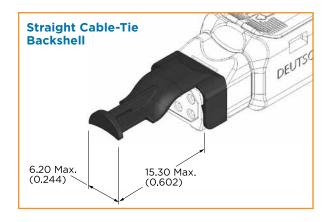




Shell Size	Mass
3	1.00 g [0.035 oz]
6	1.50 g [0.053 oz]
9	2.00 g [0.070 oz]

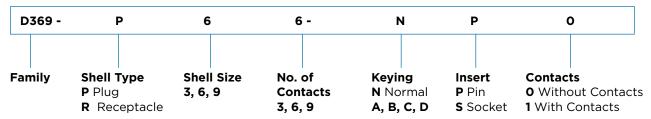
\*Mass based on receptacle less female contact configuration Mass for 1 female contact = 0.112 g [0.004 oz]



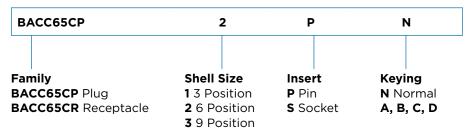


Shell Size	Part No.	Mass
3	D369-STB-3	0.24 g [0.85 oz]
6	D369-STB-6	0.25 g [0.88 oz]
9	D369-STB-9	0.28 g [0.99 oz]

# **TE Part Numbering System**

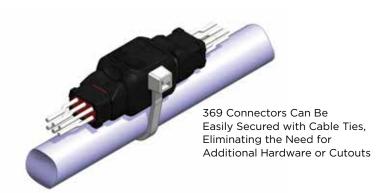


# **BACC Part Numbering System**

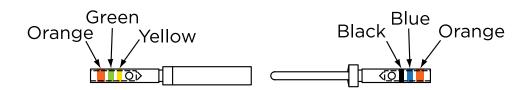


# D369-P66-NPO = BACC65CP2PN

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







#### **Contacts**

	Contact	Wire	Type	Part No.		
A Like	Size	Range		TE	Mil-Spec	BACC
	22	26 - 22	Pin	38941-22L	M39029/58-360	BACC47GC
		AWG	Socket	38946-22L	M39029/57-354	_

#### **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)



Using Pin (Male) Contacts



Using Socket (Female) Contacts



# **Part Numbers**

No. of	5 71		Part No.			
Positions			Without Contacts	With Contacts		
			TE	BACC	TE	
N-Key (Blac	k Color Code)					
3	Plug	Pin	D369-P33-NP0	BACC65 CP 1PN	D369-P33-NP1	
		Socket	D369-P33-NS0	BACC65 CP 1SN	D369-P33-NS1	
	Receptacle	Pin	D369-R33-NP0	BACC65 CR 1PN	D369-R33-NP1	
		Socket	D369-R33-NS0	BACC65 CR 1SN	D369-R33-NS1	
6	Plug	Pin	D369-P66-NP0	BACC65 CP 2PN	D369-P66-NP1	
		Socket	D369-P66-NS0	BACC65 CP 2SN	D369-P66-NS1	
	Receptacle	Pin	D369-R66-NP0	BACC65 CR 2PN	D369-R66-NP1	
		Socket	D369-R66-NS0	BACC65 CR 2SN	D369-R66-NS1	
9	Plug	Pin	D369-P99-NP0	BACC65 CP 3PN	D369-P99-NP1	
		Socket	D369-P99-NS0	BACC65 CP 3SN	D369-P99-NS1	
	Receptacle	Pin	D369-R99-NP0	BACC65 CR 3PN	D369-R99-NP1	
		Socket	D369-R99-NS0	BACC65 CR 3SN	D369-R99-NS1	
A-Key (Red	Color Code)					
3	Plug	Pin	D369-P33-AP0	BACC65 CP 1PA	D369-P33-AP1	
	Receptacle	Socket	D369-R33-AS0	BACC65 CR 1SA	D369-R33-AS1	
6	Plug	Pin	D369-P66-AP0	BACC65 CP 2PA	D369-P66-AP1	
	Receptacle	Socket	D369-R66-AS0	BACC65 CR 2SA	D369-R66-AS1	
9	Plug	Pin	D369-P99-AP0	BACC65 CP 3PA	D369-P99-AP1	
	Receptacle	Socket	D369-R99-AS0	BACC65 CR 3SA	D369-R99-AS1	
B-Key (Blue	Color Code)					
3	Plug	Pin	D369-P33-BP0	BACC65 CP 1PB	D369-P33-BP1	
	Receptacle	Socket	D369-R33-BS0	BACC65 CR 1SB	D369-R33-BS1	
6	Plug	Pin	D369-P66-BP0	BACC65 CP 2PB	D369-P66-BP1	
	Receptacle	Socket	D369-R66-BS0	BACC65 CR 2SB	D369-R66-BS1	
9	Plug	Pin	D369-P99-BP0	BACC65 CP 3PB	D369-P99-BP1	
	Receptacle	Socket	D369-R99-BS0	BACC65 CR 3SB	D369-R99-BS1	
C-Kev (Gree	en Color Code)			27.0000 0.1.000		
3	Plug	Pin	D369-P33-CP0	BACC65 CP 1PC	D369-P33-CP1	
	Receptacle	Socket	D369-R33-CS0	BACC65 CR 1SC	D369-R33-CS1	
6	Plug	Pin	D369-P66-CP0	BACC65 CP 2PC	D369-P66-CP1	
	Receptacle	Socket	D369-R66-CS0	BACC65 CR 2SC	D369-R66-CS1	
9	Plug	Pin	D369-P99-CP0	BACC65 CP 3PC	D369-P99-CP1	
	Receptacle	Socket	D369-R99-CS0	BACC65 CR 3SC	D369-R99-CS1	
	ow Color Code)					
3	Plug	Pin	D369-P33-DP0	BACC65 CP 1PD	D369-P33-DP1	
<u> </u>	Receptacle	Socket	D369-R33-DS0	BACC65 CR 1SD	D369-R33-DS1	
6	Plug	Pin	D369-P66-DP0	BACC65 CP 2PD	D369-P66-DP1	
9	Receptacle	Socket Pin	D369-R66-DS0	BACC65 CR 2SD BACC65 CP 3PD	D369-R66-DS1	
9	Plug	PIII	D369-P99-DP0	DACCOS CP 3PD	D369-P99-DP1	

# For More Information

# TE Technical Support Center

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Consult TE for the latest dimensions and design specifications.

