

GRACE INERTIA CONNECTORS

2.5 mm Centerline



TE Connectivity's (TE) GRACE INERTIA 2.5mm pitch connectors feature advanced design concepts to facilitate a more stable, reliable and durable connection. GRACE INERTIA 2.5mm connectors can be used in a wide range of large electrical products, from home appliances to vending machines that require wire-to-board signal conduction application. For high volume manufactures, tape in ammo box packaging is available, which better supports board assembly operations. These innovative connectors are designed to help customers reduce human error during assembly.

The inertia locking mechanism helps to prevent having defective products caused by half-mating. The terminal position assurance (TPA) helps to ensure that the contacts are properly seated in the housing and provides an extra measure of protection against contact back-out. Ergonomic design and lanceless contacts, which prevent snagging or entanglement, help improve safety and efficiency during operation. GRACE INERTIA 2.5mm connectors also offer 2 through 8 positions and multiple colors and physical keying options making it easier to identify connectors and help avoid mismatching.

ELECTRICAL

- Voltage rating: 50V AC/DC
- Current rating: 3.0A Max.

MECHANICAL

- Number of positions: 2-8
- Pitch: 2.5mm
- Temperature rating: -30°C to 105°C
- Wire Size: 22 - 28 AWG (.079 - .38mm²)
- Multiple PCB layout options

MATERIALS

- Housing & TPA: UL94-V0 rated nylon
- Colors: Housing & Header: Natural, Blue, Red, Yellow, Black; TPA: Black
- Contacts: Tin-plated copper alloy

SPECIFICATIONS & STANDARDS

- Product specification: [108-106077](#)
- Application specification: [114-106077](#)
- Tooling & applicator: 2836559-1 or 2836559-2
- cURus: E28476

KEY FEATURES

- Inertia locking mechanism helps prevent connectors from being disconnected during movement or transportation
- Locking mechanism also helps prevent having defective products caused by half mating
- 4 keying methods with different colors help assure pressure mating
- Lanceless contacts help prevent snagging or entanglement
- Dual beam contact design enhances contact reliability and durability
- Ergonomic design helps ease assembly process
- TPA helps ensure contacts are fully seated
- One unique contact simplifies supply chain management
- Nylon material meets GWEPT* and UL 94 V-0 tests
- UL recognized, file E28476

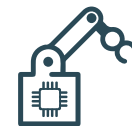
APPLICATIONS



Large home appliances



Small home appliances



Industrial control

*GWEPT stands for Glow Wire End-product Temperature (IEC 60695-2-11)

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HOUSING

Position	Key	Color	Header Part Number				Plug Part Number
			With Boss (Ø1.0mm)	With Boss (Ø1.5mm)	With Boss (Ø1.25mm)	Without Boss (Taping version)	
2	A	Natural	2-2232730-1	2-1971800-1	2-2232501-1	2-2232546-1	2-1971793-1
	B	Blue	2-1971798-2	2-1971800-2	2-2232501-2	2-2232546-2	2-1971793-2
	C	Red	2-1971798-3	2-1971800-3	2-2232501-3	2-2232546-3	2-1971793-3
	D	Yellow	2-1971798-4	2-1971800-4	2-2232501-4	2-2232546-4	2-1971793-4
	D	Black	2-1971798-5	-	-	2-2232546-5	2-1971793-5
3	A	Natural	3-1971798-1	3-1971800-1	3-2232501-1	3-2232546-1	3-1971793-1
	B	Blue	3-2232730-2	3-1971800-2	3-2232501-2	3-2232546-2	3-1971793-2
	C	Red	3-1971798-3	3-1971800-3	3-2232501-3	3-2232546-3	3-1971793-3
	D	Yellow	3-2232730-4	3-1971800-4	3-2232501-4	3-2232546-4	3-1971793-4
	D	Black	3-1971798-5	-	-	3-2232546-5	3-1971793-5
4	A	Natural	4-1971798-1	4-1971800-1	4-2232501-1	4-2232546-1	4-1971793-1
	B	Blue	4-1971798-2	4-1971800-2	4-2232501-2	4-2232546-2	4-1971793-2
	C	Red	4-1971798-3	4-1971800-3	4-2232501-3	4-2232546-3	4-1971793-3
	D	Yellow	4-1971798-4	4-1971800-4	4-2232501-4	4-2232546-4	4-1971793-4
	D	Black	4-1971798-5	-	-	4-2232546-5	4-1971793-5
5	A	Natural	5-1971798-1	5-1971800-1	5-2232501-1	5-2232546-1	5-1971793-1
	B	Blue	5-1971798-2	5-1971800-2	5-2232501-2	5-2232546-2	5-1971793-2
	C	Red	5-1971798-3	5-1971800-3	5-2232501-3	5-2232546-3	5-1971793-3
	D	Yellow	5-1971798-4	5-1971800-4	5-2232501-4	5-2232546-4	5-1971793-4
	D	Black	5-1971798-5	-	-	5-2232546-5	5-1971793-5
6	A	Natural	6-1971798-1	6-1971800-1	6-2232501-1	6-2232546-1	6-1971793-1
	B	Blue	6-1971798-2	6-1971800-2	6-2232501-2	6-2232546-2	6-1971793-2
	C	Red	6-1971798-3	6-1971800-3	6-2232501-3	6-2232546-3	6-1971793-3
	D	Yellow	6-1971798-4	6-1971800-4	6-2232501-4	6-2232546-4	6-1971793-4
	D	Black	6-1971798-5	-	-	6-2232546-5	6-1971793-5
7	A	Natural	7-1971798-1	7-1971800-1	7-2232501-1	7-2232546-1	7-1971793-1
	B	Blue	7-1971798-2	7-1971800-2	7-2232501-2	7-2232546-2	7-1971793-2
	C	Red	7-1971798-3	7-1971800-3	7-2232501-3	7-2232546-3	7-1971793-3
	D	Yellow	7-1971798-4	7-1971800-4	7-2232501-4	7-2232546-4	7-1971793-4
	D	Black	7-1971798-5	-	-	7-2232546-5	7-1971793-5
8	A	Natural	8-1971798-1	8-1971800-1	8-2232501-1	8-2232546-1	8-1971793-1
	B	Blue	8-1971798-2	8-1971800-2	8-2232501-2	8-2232546-2	8-1971793-2
	C	Red	8-1971798-3	8-1971800-3	8-2232501-3	8-2232546-3	8-1971793-3
	D	Yellow	8-1971798-4	8-1971800-4	8-2232501-4	8-2232546-4	8-1971793-4
	D	Black	8-1971798-5	-	-	8-2232546-5	8-1971793-5

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TERMINAL POSITION ASSURANCE

Position	TPA Part Number	Position	TPA Part Number
2	2-1971794-1	6	6-1971794-1
	2-1971794-1		6-1971794-1
	2-1971794-1		6-1971794-1
	2-1971794-1		6-1971794-1
	2-1971794-1		6-1971794-1
3	3-1971794-1	7	7-1971794-1
	3-1971794-1		7-1971794-1
	3-1971794-1		7-1971794-1
	3-1971794-1		7-1971794-1
	3-1971794-1		7-1971794-1
4	4-1971794-1	8	8-1971794-1
	4-1971794-1		8-1971794-1
	4-1971794-1		8-1971794-1
	4-1971794-1		8-1971794-1
	4-1971794-1		8-1971794-1
5	5-1971794-1		
	5-1971794-1		
	5-1971794-1		
	5-1971794-1		
	5-1971794-1		

TERMINAL

Part Number	Wire Size (AWG)	Description	Applicator
2232557-1	22-28	Receptacle contact	2836559-1 or 2836559-2

FOR MORE INFORMATION

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