

fischer connectors

405 Series
Plastic connectors



MEDICAL



*PORTABLE
EQUIPMENT*



*DATA
ACQUISITION*



INSTRUMENTATION



*HIGH-PERFORMANCE IN A
VERSATILE PACKAGE*



PERFECT PACKAGE



S E R I E S

405

FEATURES

- FDA Class VI approved body material
- Integral shielding available
- Up to 40 contacts
- Gold-plated contacts (greater than 1 µm)
- Greater than 5000 mating cycles
- IP68 sealing available (submersible)
- Intermates with Fischer's 105 Series
- Fischer®-pioneered keying system
- Completely sterilizable
- Integral color coding system

BENEFITS

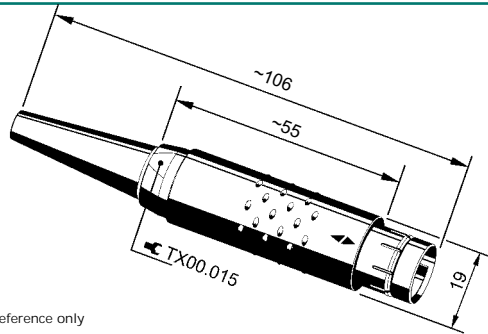
- Accelerates FDA approval of medical devices
- Ideal for EMI/RFI sensitive applications
- High signal density
- Highly reliable signal path
- Minimizes customer warranty claims
- Ideal for exterior applications
- Excellent design flexibility
- Facilitates easy operation and eliminates contact damage
- Impervious to thousands of cycles: autoclave, Cidex®, EtO, gamma radiation, Steris® or Sterrad®.
- Easy identification of multiple connectors

APPLICATIONS

- ▶ Medical
- ▶ Avionics
- ▶ Instrumentation
- ▶ Data acquisition
- ▶ Test and Measurement
- ▶ Aerospace
- ▶ GPS
- ▶ Military
- ▶ Sensors
- ▶ Marine
- ▶ Petro-chemical
- ▶ Industrial

Connectors And Accessories

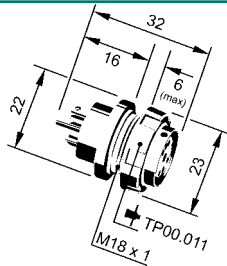
IP56 or IP68 Rated



All dimensions shown are in millimeters and are for reference only

S or SI

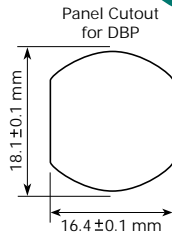
- Cable plug
- Model S: with integral EMI/RFI shielding - Model SI: without integral EMI/RFI shielding
- Color-coded cap nuts and strain reliefs available
- Accepts cable diameters 4.2 – 10.7 mm (0.17 – 0.42 in.)
- Completely sterilizable via autoclave, Cidex®, EtO, gamma radiation, Steris® or Sterrad®.



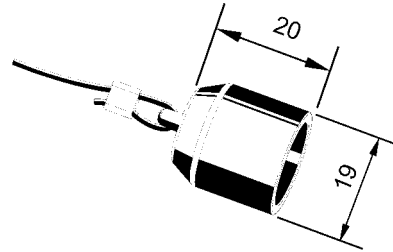
(Max. mounting nut torque: 1.8 Nm)

DBP

- Chassis receptacle, rear panel mount
- Completely sterilizable via autoclave, Cidex®, EtO, gamma radiation, Steris® or Sterrad®.
- Color-coded mounting nut permits easy matching to plug



IP56 Rated



Sealing Caps

- 105.2740 (Beige) / 105.2741 (Black)
- Integral o-ring seals and protects plug when unmated
- Supplied with 200 mm PTFE coated stainless steel lanyard and hardware
- Material: PEI

Materials

Component	Material	Plating
Bodies, Cap Nut, Mounting Nut	PEI	-
Metal Parts (except contacts)	Brass	3 µm Nickel ²
Contacts	Solder: Male: Brass Female: Bronze Crimp: Male: Bronze Female: Bronze	Minimum 1 µm Gold ¹ on 4 µm Nickel ²
Contact Block	PEEK, PTFE or PBT	-
O-rings	NBR	-
Plastic Cable Clamps	POM (Delrin®)	-

¹ per AMS2422D or ASTM B488

² similar to MIL-C26074E
































Performance

Temperature Ratings³

Body Style	Body Material	Contact Block Material			
		PEEK	PTFE	PBT	
Cable Mounted	Unsealed:	PEI	-65°C to +200°C	-65°C to +160°C	-65°C to +135°C
	Sealed:		-65°C to +135°C	-65°C to +135°C	-65°C to +135°C
Panel Mounted	PEI	-65°C to +200°C	-65°C to +160°C	-65°C to +135°C	

³ Operating temperature range according to chosen Body and Contact Block materials.

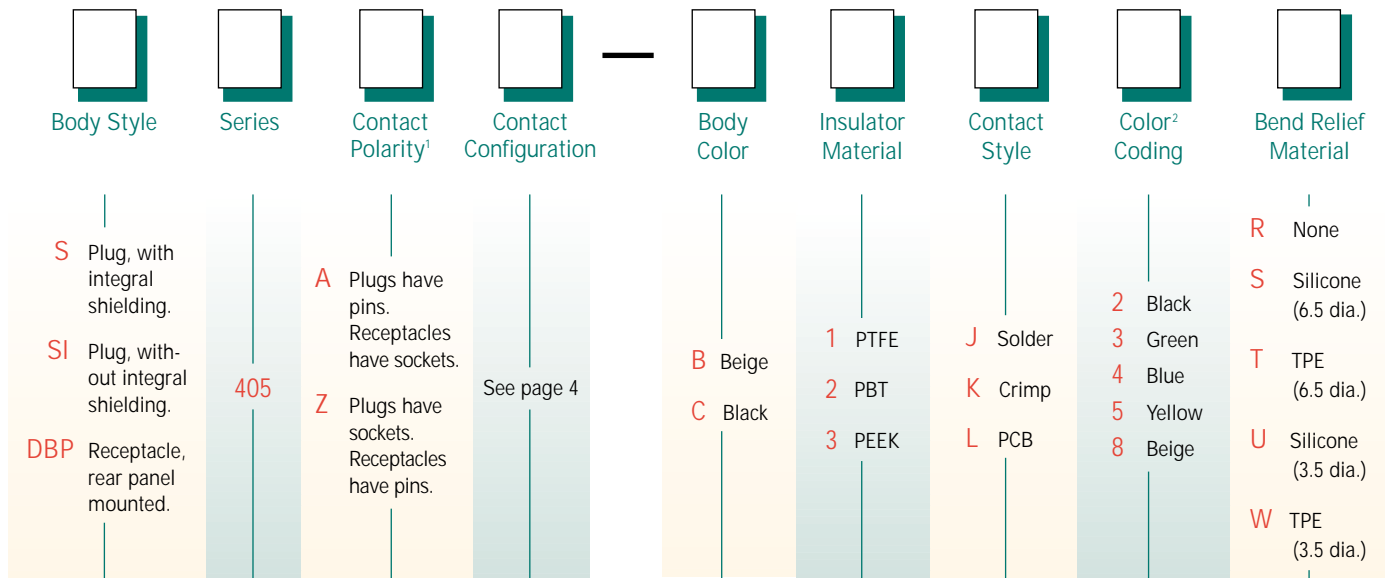
Standard Contact Configurations

Designation ¹	Contacts	Test Voltage ² (kVAC)	Maximum Current ³ per Contact (A)	Conductor Maximum (mm / AWG)	Contact Block Material	Available Contact Styles ⁴
405 A001	 1	4.0	45	3.0 / 8	PTFE	J
405 A002	 1	4.8	30	2.9 / 10	PTFE	J
405 A004	 1	13.0 (kVDC)	32	2.9 / 10	PTFE	J
405 A005	 1	14.0 (kVDC)	20	2.0 / 14	PTFE	J
405 A090	 1	6.4	13	1.2 / 20	PTFE	J
405 A051	 2	2.5	26	2.0 / 14	PTFE	J
405 A087	 2	1.2	30	3.1 / 10	PTFE	J
405 A057	 3	8.0 (kVDC)	14	1.2 / 20	PTFE	J
405 A052	 3	2.0	23	2.0 / 14	PTFE	J
405 A053	 4	1.8	20	2.0 / 14	PTFE	J
405 A039	 5	7.0 (kVDC)	11	1.2 / 20	PTFE	J
405 A112	 4 + Gnd	7.0 (kVDC)	12	1.2 / 20	PTFE	J
405 A054	 1 6	2.0 1.5	25 7.0	2.0 / 14 1.2 / 20	PTFE	J
405 A067	 8	1.7	10	1.2 / 20	PTFE	J
405 A101	 1 8	2.0 1.5	25 5.0	2.1 / 14 1.2 / 20	PEEK	J, L
405 A062	 10	1.7	9.0	1.2 / 20	PTFE	J
405 A069	 12	1.4	8.0	1.2 / 20	PEEK	J
405 A104	 3 10	1.5 1.5	14 1.0	1.2 / 20 0.6 / 26	PEEK	J
405 A058	 15	1.4	5.3	0.8 / 22	PEEK	J, K, L
405 A110	 4 12	1.3 1.2	14 1.0	1.8 / 14 0.6 / 26	PEEK	J
405 A038	 18	1.4	4.5	0.8 / 22	PEEK	J, K, L
405 A093	 24	1.2	3.5	0.6 / 26	PBT	J, L
405 A102	 27	1.2	3.0	0.6 / 26	PEEK	J, L
405 A122	 40	Please contact us for additional information				
405 A074	 Coax + 1	4.5 1.6	12 12	1.0 / 20 1.1 / 20	PTFE	Coax=K J
405 A089	 Coax + 4	4.5 1.5	12 7.0	1.0 / 20 0.75 / 24	PTFE	Coax=K J
405 A095	 Coax + 9	1.8 1.5	4.0 6.0	0.55 / 30 0.75 / 24	PTFE	Coax=K J
405 A105	 4 Coax (50 Ohm)	Please contact us for additional information				
405 A020	 H.V. + 2	6.0 0.8	18 12	2.0 / 20 1.1 / 14	PTFE	J
405 A036	 H.V. + 4	6.0 1.8	18 12	2.0 / 20 1.1 / 14	PTFE	J
405 A060	 H.V. + 7	6.0 1.6	16 10	2.0 / 20 1.1 / 14	PTFE	J

¹Some versions available with reverse polarity (Z) ²per IEC 512-2, 4a ³per IEC 512-3, 5a ⁴J = Solder; K = Crimp; L = PCB

Part Numbers

CONNECTORS



¹ Except high voltage versions

² Plug: Cap nut
Receptacle: Mounting nut

CABLE CLAMP SETS

To be ordered separately

CLAMP TYPE	Cable O.D. (mm)	Use with PEEK or PBT Insulators	Use with PTFE Insulators
UNSHIELDED METAL For use with unshielded cable or when shield is not carried through connector body.	2.5 – 3.5	E3 105.6/3.5	E3 105.5/3.5
	3.5 – 4.5	E3 105.6/4.5	E3 105.5/4.5
	4.5 – 5.5	E3 105.6/5.5	E3 105.5/5.5
	5.5 – 6.5	E3 105.6/6.5	E3 105.5/6.5
	6.5 – 7.5	E3 105.6/7.5	E3 105.5/7.5
	7.5 – 8.5	E3 105.6/8.5	E3 105.5/8.5
	8.5 – 9.5	E3 105.6/9.5	E3 105.5/9.5
	9.5 – 10.5	E3 105.6/10.5	E3 105.5/10.5

CLAMP TYPE	Cable O.D. (mm)	Use with PEEK or PBT Insulators	Use with PTFE Insulators
SHIELDED METAL For use with shielded cable when shield is to be carried through connector body.	3.2 – 4.2	E3 105.1/4.2 + B	E3 105.1/4.2 + A
	4.2 – 5.2	E3 105.1/5.2 + B	E3 105.1/5.2 + A
	5.2 – 6.2	E3 105.1/6.2 + B	E3 105.1/6.2 + A
	6.2 – 7.2	E3 105.1/7.2 + B	E3 105.1/7.2 + A
	7.2 – 8.2	E3 105.1/8.2 + B	E3 105.1/8.2 + A
	8.2 – 9.2	E3 105.1/9.2 + B	E3 105.1/9.2 + A
	9.2 – 10.0	E3 105.1/10.0 + B	E3 105.1/10.0 + A
	10.0 – 10.7	E3 105.1/10.7 + B	E3 105.1/10.7 + A

CLAMP TYPE	Cable O.D. (mm)	Use with PEEK or PBT Insulators	Use with PTFE Insulators
UNSHIELDED PLASTIC For use with high voltage connectors.	2.8 – 4.2	-	105.1010
	4.1 – 5.5	-	105.1356
	5.1 – 6.5	-	105.793
	6.1 – 7.5	-	105.921
	6.6 – 8.0	-	105.1111
	7.1 – 8.5	-	105.794
	8.3 – 9.7	-	105.1124
	9.1 – 10.5	-	105.795

CLAMP TYPE	Cable O.D. (mm)	Use with PEEK or PBT Insulators	Use with PTFE Insulators
SEALED For use when sealing shielded or unshielded cable to plug body.	3.2 – 4.2	E31 105.2/4.2 + B	E31 105.2/4.2 + A
	4.2 – 5.2	E31 105.2/5.2 + B	E31 105.2/5.2 + A
	5.2 – 6.2	E31 105.2/6.2 + B	E31 105.2/6.2 + A
	6.2 – 7.2	E31 105.2/7.2 + B	E31 105.2/7.2 + A
	7.2 – 8.2	E31 105.2/8.2 + B	E31 105.2/8.2 + A
	8.2 – 9.2	E31 105.2/9.2 + B	E31 105.2/9.2 + A
	9.2 – 10.0	E31 105.2/10.0 + B	E31 105.2/10.0 + A
	10.0 – 10.7	E31 105.2/10.7 + B	E31 105.2/10.7 + A



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