



HERMETIC FEEDTHROUGH FOR SPACE OR INDUSTRIAL VACUUM APPLICATIONS

CIVAC®



TECHNICAL CHARACTERISTICS

MATERIAL AND FINISHES

Insulator: Glass-filled DAP, type SDG-F, black color, UL 94V0.
Contacts: Precision machined copper alloy.
Contact Plating: 0,000030 inch (0,76 microns) gold plate over nickel plate.
Shells: Aluminium alloy, golden brown conversion coating.
Flange: Aluminium Alloy.
O-ring: Viton (fluorocarbon). Other material per request. One mounting and one for spare part.

ELECTRICAL CHARACTERISTICS AT SEA LEVEL

Contact Current Rating: 25A nominal, size 12.
 13A nominal, size 16.
 7,5A nominal, size 20.
 5A nominal, size 22.
Initial Contact Resistance: 0,003 ohms max., size 12.
 0,003 ohms max., size 16.
 0,007 ohms max., size 20.
 0,012 ohms max., size 22.
Insulator Resistance: 5 G ohms.
Clearance And Creepage: See Front Runner Series Product catalog.
Working Voltage: See Front Runner Series Product catalog.
EM/RFI Shielding Characteristics: Consult factory.

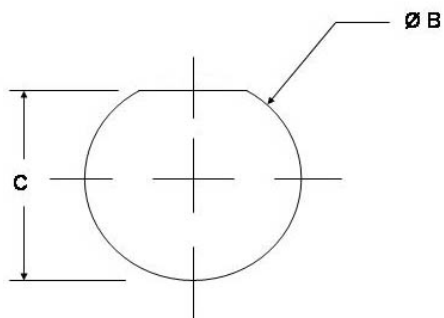
MECHANICAL CHARACTERISTICS

Fixed Contacts: Size 12 contact: 0,094 inch (2,4mm) mating diameter.
 Size 16 contact: 0,0625 inch (1,588mm) mating diameter.
 Size 20 contact: 0,040 inch (1,02mm) mating diameter.
 Size 22 contact: 0,030 inch (0,76mm) mating diameter.
 Female contacts: closed entry design for highest reliability.
Contact Retention In Insulator: Size 12: 20 lbs (89 N).
 Size 16: 20 lbs (89 N).
 Size 20: 10 lbs (44 N).
 Size 22: 6 lbs (27 N).
 500 coupling.
Mechanical Operators:

CLIMATIC CHARACTERISTICS

Temperature Range: -40 to +125°C.
 The temperature range can be expended under certain conditions. Consult factory.
Helium Leak Rate At Ambient Temperature: < 5x10⁻⁹ mbar.l/s under a vacuum of 1.5x10⁻² mbar.
Outgassing: Total Mass Loss – TML < 1 %.
 Collected Volatile Condensable Materials – CVCVM < 0,1 %.

PANEL MOUNTING CUTOUTS FOR CIVAC WITHOUT FLANGE



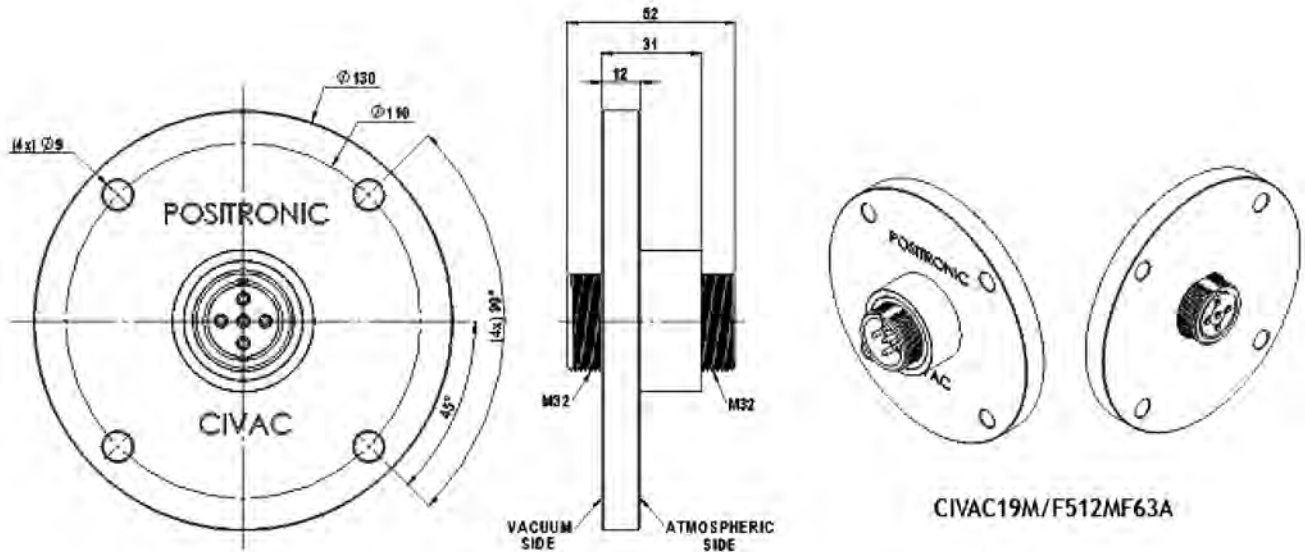
Dimension	Size 11 Housing	Size 19 Housing
Ø B	0.760 ± 0.003 (19.30 ± 0.08)	1.275 ± 0.003 (32.39 ± 0.08)
C	0.715 ± 0.003 (18.16 ± 0.08)	1.227 ± 0.003 (31.17 ± 0.08)

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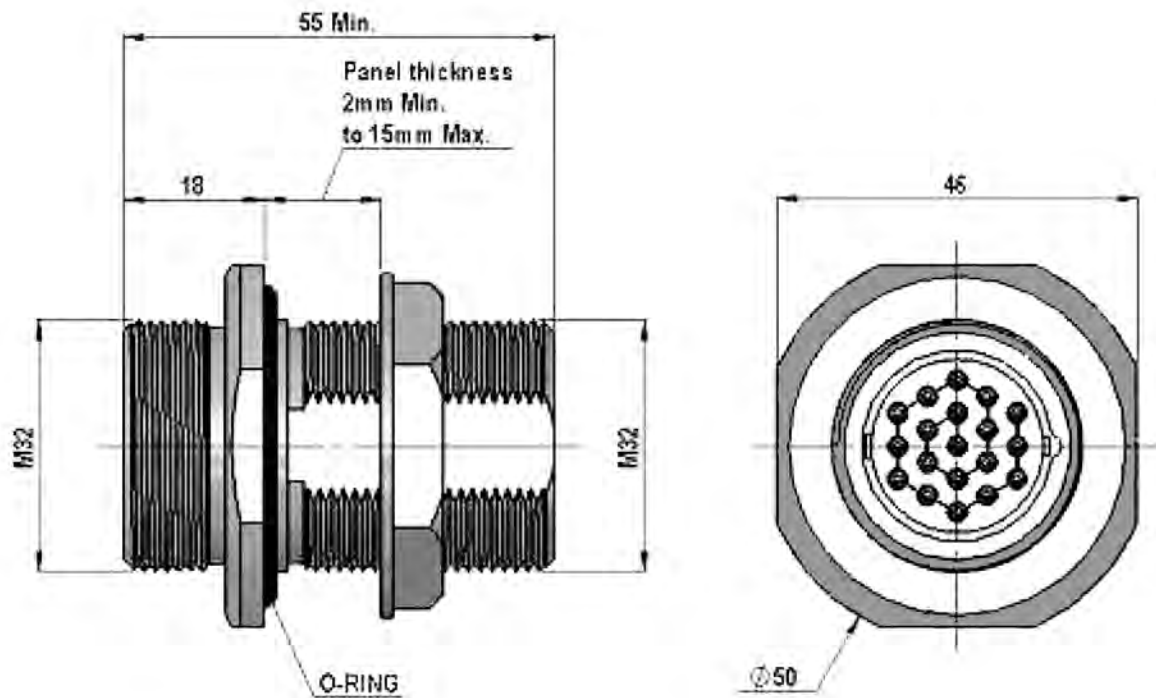
Positronic Industries
www.connectpositronic.com

CIVAC® WITH FLANGE F63



CIVAC19M/F512MF63A

CIVAC® WITHOUT FLANGE



CIVAC19M/F1920005



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ORDERING INFORMATION – CODE NUMBERING SYSTEMS

STEP	1	2	3	4	5	6	7
EXAMPLE	CIVAC	11	M/M	316	M	K63A	S****
STEP 1 CIVAC – Circular Vacuum Connector							STEP 7 Consult factory
STEP 2 – HOUSING SIZE 11 – Size 11 Housing 19 – Size 19 Housing							STEP 6 – FLANGE TYPE 0A(S) ① – without flange A = Shell in aluminium steel S = Shell in Stainless steel ① Consult factory for panel thickness K63A(S)② - with flange F63A(S)② - with flange K63 : Flange DN63 - ISO-K equipped with one size 11 or one size 19 connector. F63 : Flange DN63 - ISO-F equipped with one size 11 or one size 19 connector. A : Flange in aluminium alloy S : Flange in stainless steel ② Consult factory for another flange dimensions
STEP 3 – GENDER First letter is mounted outside Vacuum equipment M/M Male/Male F/F Female/Female M/F Male/Female F/M Female/Male							STEP 5 – SERVICE CLASS O – Standard M – EMI/RFI Shielded: consult factory.

STEP 4 – SIZE CONTACT ARRANGEMENT*

Size 11 Housing	Size 19 Housing
316 – 3 size 16	312 – 3 size 12
420 – 4 size 20	512 – 5 size 12
520 – 5 size 20	712 – 7 size 12
722 – 7 size 22	716 – 7 size 16
822 – 8 size 22	916 – 9 size 16
922 – 9 size 22	920 – 9 size 20
	1220 – 12 size 20
	1822 – 18 size 22
	1920 – 19 size 20
	2922 – 29 size 22

* See Front Runner Series Product Catalog for detailed dimensional information.