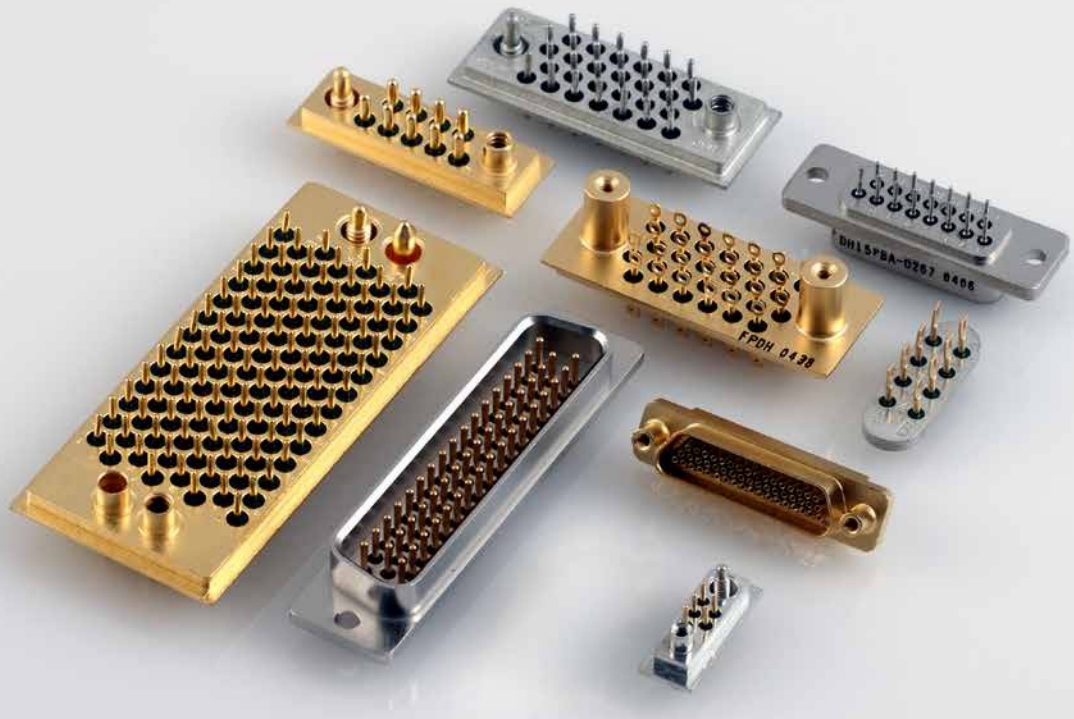
HSC HERMETIC SEAL™

AMETEK®
ENGINEERED INTERCONNECT AND PACKAGING

D SUBMINIATURE CONNECTORS

Manufactured to the requirements of: MIL-C-24308



PRODUCT DESCRIPTION

Hermetic Seal Corporation Series 50200 Subminiature Rack and Panel D Connectors are manufactured to the requirements of MIL-C-24308.

The standard cold rolled steel body material comes with an electrotin fused finish while the 52 alloy contacts are gold plated.

The insulator is made of a compression sealed glass. A resilient fluoro silicon interfacial seal may also be provided.

USE

Ideal for electronic and electrical equipment, for commercial and defense, airborne, ground support, or shipboard.

The size and weight lends the connector to various applications and the **D shape ensures a positive polarization**.

Custom designed connectors using standard interconnection dimensions can be designed and manufactured to meet your specific application requirements.

GENERAL SPECIFICATIONS

Air Leakage (Hermeticity):
Leakage rate less than 0.1 micron cubic foot per hour (1×10^{-6} cc/sec) at 15 psi.

Dielectric Withstanding Voltage:
Connectors show no evidence of breakdown or flashover when tested at voltages shown per MIL-STD-1344, Method 3001.

Contact Size	Test Voltage 60Hz (RMS) Sea Level (ac Volts)
	Initial Volts
20	800

Insulation Resistance:
Greater than 5,000 megohms per MIL-STD-1344, Method 3003.

Salt Spray:
Connectors will meet salt spray test per MIL-STD-1344, Method 1001.

Permeability:
Magnetic permeability less than 2.0 Mu when non-magnetic metals are used.

Shock:

Mated connectors are not damaged per MIL-STD-1344, Method 2004.

Thermal Shock:

No evidence of damage detrimental to operation of connector after test per MIL-STD-1344, Method 1003.

Contact Retention

Contacts will withstand axial loads shown:

Mating End Size	Pounds
20	10

Contact Resistance

Contact Size	Test Current (Amps Max.)	Initial Volts (Max.)	After Conditioning Volts (Max.)
20	5	0.060	0.070

Configuration

502 – Skirted back side
503 – Same as 505 except solid glass
505 – MIL standard part

PART NUMBERING SYSTEM

S 505 1 1 -5 -50 P *

Material: S - C.R.S.
SS – Stainless Steel
X – Inconel
M – Monel
(or as specified)
Configuration
Series No.
0 – No holes in flange
1 – Lock posts
2 – Holes in flange
Contact Termination
(see chart below)
Shell Size
Insert Arrangement
Contact Designator
P – Pin
S – Socket
Special Modifications (includes plating)

Contact Diameter:0.040"
Wire Accommodated: #20 AWG

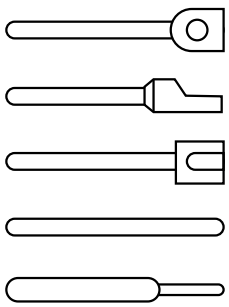
All connector sizes shown are completely designed.

Most standard insert arrangements and interfacial seals are tooled.

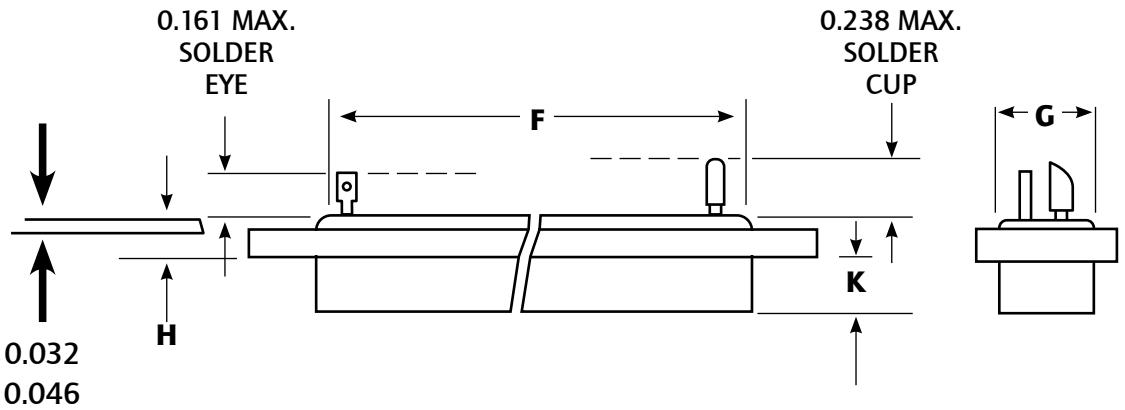
Please consult factory for further details.

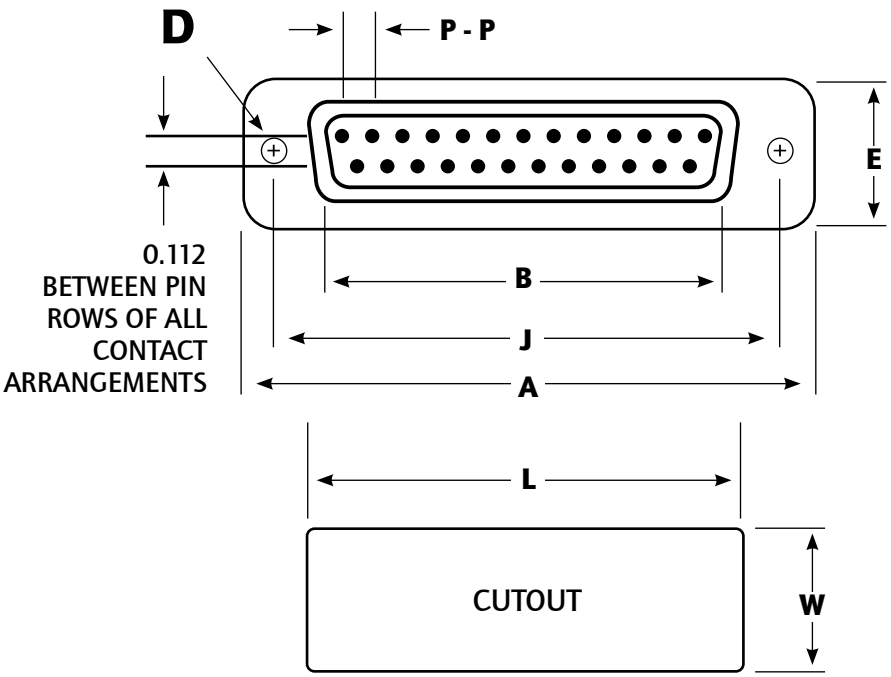
CONTACT STYLES

1. Flatten & Pierce
2. Std. Solder Pot
3. Short Solder Pot
4. Straight
5. Turned Down

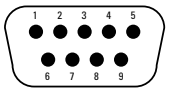


SERIES 505

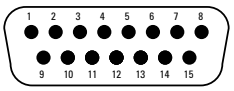

0.161 MAX.
SOLDER
EYE
0.238 MAX.
SOLDER
CUP
F
G
K
H
0.032
0.046


D
P - P
E
0.112
BETWEEN PIN
ROWS OF ALL
CONTACT
ARRANGEMENTS
B
J
A
L
CUTOUT
W

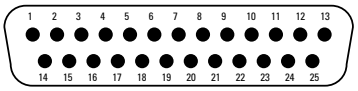
INSERT ARRANGEMENTS



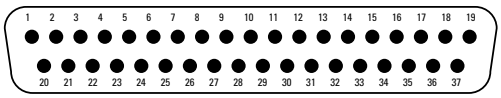
9 contacts



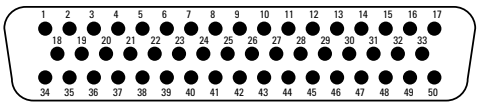
15 contacts



25 contacts



37 contacts



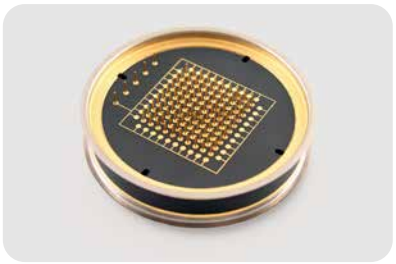
50 contacts

Shell Size	1	2	3	4	5
Insert Arrangement	9	15	25	37	50
A	1.228 1.198	1.556 1.526	2.103 2.073	2.744 2.714	2.650 2.620
B	0.672 0.662	0.998 0.988	1.540 1.530	2.188 2.178	2.084 2.074
D	To customer specification				
E	0.508 0.488	0.508 0.488	0.508 0.488	0.508 0.488	0.620 0.600
F	0.735 0.715	0.942 0.922	1.480 1.469	2.135 2.115	2.010 1.990
G	0.379 0.359	0.379 0.359	0.379 0.359	0.379 0.359	0.510 0.490
H	0.104 0.084	0.104 0.084	0.113 0.093	0.113 0.093	0.113 0.093
J	0.989 0.979	1.317 1.307	1.857 1.847	2.505 2.495	2.411 2.401
K	0.241 0.229	0.241 0.229	0.236 0.224	0.236 0.224	0.236 0.224
P - P	0.108	0.108	0.109	0.109	0.109
L	0.745	0.955	1.495	2.145	2.015
W	0.385	0.385	0.385	0.385	0.515

All dimensions are ± 0.015, except those for location of pins and hardware which are ± 0.005.







ABOUT ENGINEERED INTERCONNECT AND PACKAGING

AMETEK Engineered Interconnect and Packaging (EIP) is the world leading producer of end-to-end electronic packaging solutions for harsh environments and reliability sensitive applications. Consisting of five leading brands Hermetic Seal, Sealtron, AMETEK SCP, Aegis and Glasseal Products, experts for hermetic electronic connectors and packaging, AMETEK EIP can offer a wide range of material technologies, including metals, glass, ceramics, and plastics and has the unique expertise required to design, custom manufacture, and scale tailored solutions using any material or combination of materials required.

HSC HERMETIC SEAL™ / AMETEK® ENGINEERED INTERCONNECT AND PACKAGING

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