Mil-Spec Connectors & Accessories

DEUTSCH ECD

Defense / Aerospace Operations . . .

is the world's premier manufacturer of electrical interconnection devices for use in defense, aerospace, and commercial applications. Whether you need an interconnection device for a commercial or military aircraft, missile, tank, truck transmission or a host of other applications, Deutsch has the solution you're looking for.
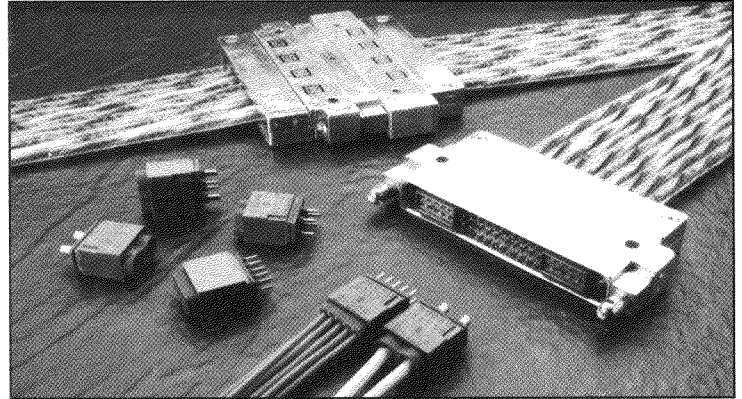
Deutsch ECD Defense Aerospace Operations
5733 W. Whittier Ave., Hemet CA (USA) 92545
Phone 909/765-2200 • FAX 909/922-1544

ABC Connectors

Composite Rectangular Interconnection System
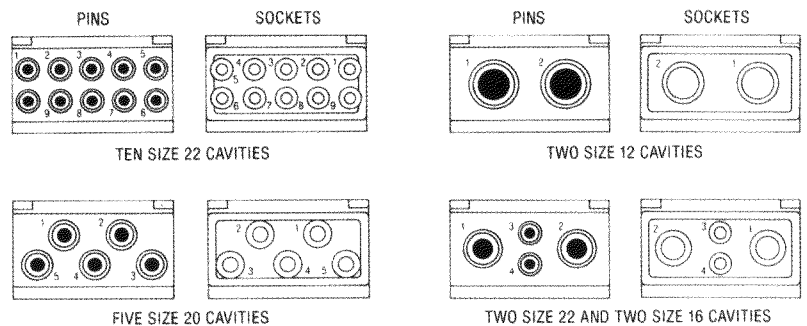
ABC Module Arrangements

ABC modules are available in a variety of arrangements, using sizes 22, 20, 16 and 12 crimp-type contacts. You can use any combination of modules within the same shell, thus customizing the connector for your specific application.

Each module holds the contacts into place with a unique contact retention system. For environmental protection, a silicone rear grommet with a triad wire seal and a cork-in-a-bottle interfacial seal are featured.
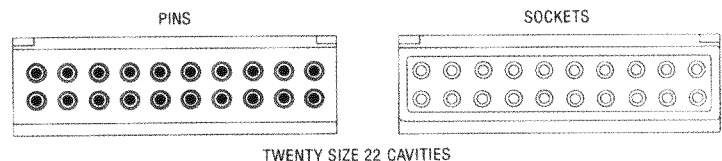
Extended life contacts

The ABC system uses solderless, rear-release, crimp-type MIL-C-39029 contacts. They save time and reduce costs during assembly by eliminating the need for heat guns, wet processes and other special tools. And they keep field repair procedures quick and simple. They also last longer than other contacts. Thanks to a high-lubricity coating process called Deutschcoat V, each ABC connector has a 1,500 cycle durability rating – three times that of standard MIL-spec contacts.
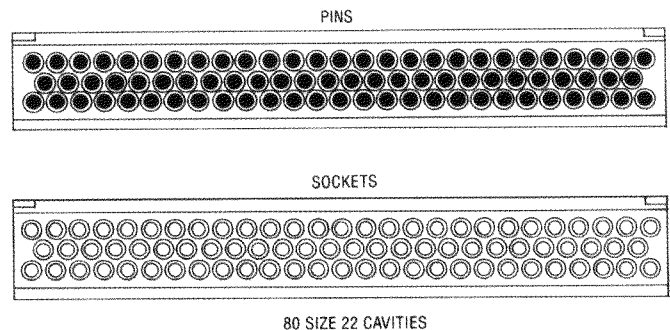
HALF-INCH MODULES

PINS · SOCKETS

TEN SIZE 22 CAVITIES

PINS · SOCKETS

TWO SIZE 12 CAVITIES

FIVE SIZE 20 CAVITIES

TWO SIZE 22 AND TWO SIZE 16 CAVITIES

ONE-INCH MODULES

PINS · SOCKETS

TWENTY SIZE 22 CAVITIES

TWO-INCH MODULES

PINS

SOCKETS

80 SIZE 22 CAVITIES
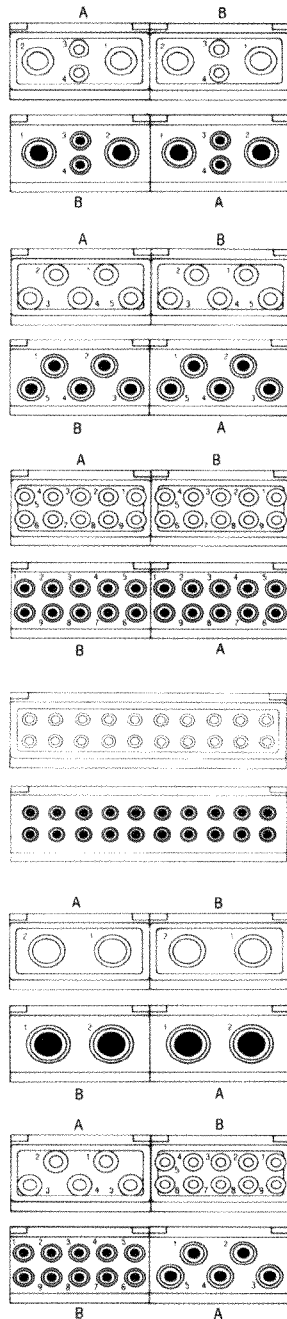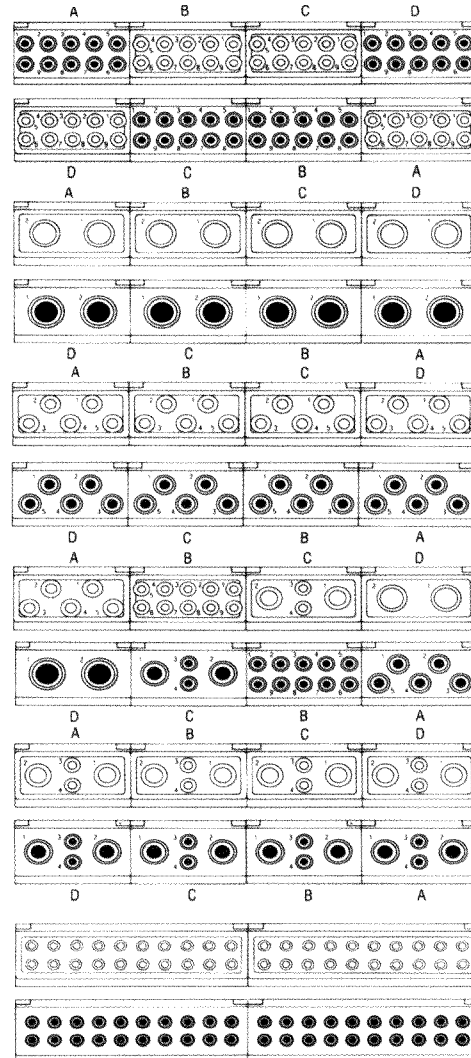
With The ABC System, there are over 4,000 combinations of modules and shells. Pictured are a few of the many possibilities. With so many choices you can design a system that's exactly right for your needs.
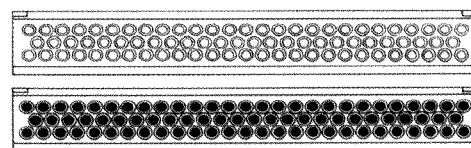
ONE INCH MULTIPLE MODULE ARRANGEMENTS EXAMPLES
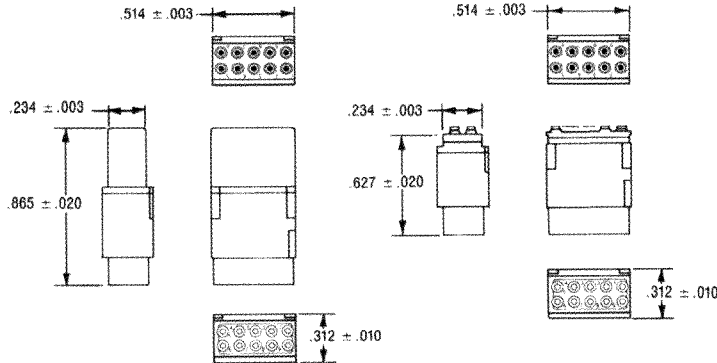

TWO INCH MULTIPLE MODULE ARRANGMENTS EXAMPLES

TWO INCH SINGLE MODULE ARRANGEMENT (80 PIN)
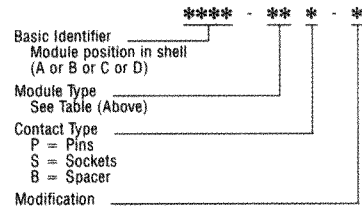

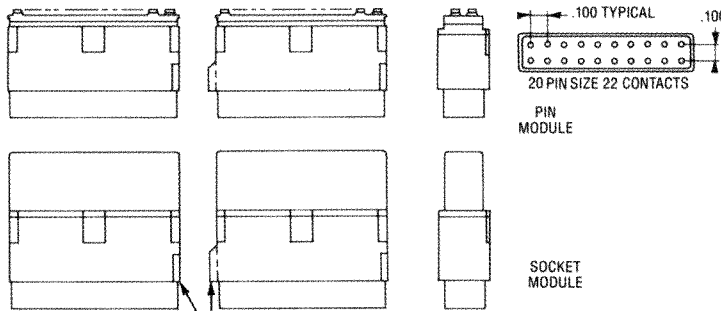aflc8810310abc

Single Module Configurations

HALF-INCH MODULES

.514 ± .003

.234 ± .003

.865 ± .020

.514 ± .003

.234 ± .003

.627 ± .020

.312 ± .010

.312 ± .010

MODULE TYPE

DESIGNATOR	CONTACT SIZE
00	no cavities (Spacer)
22	22
20	20
16	16, 22
12	12

ORDERING INFORMATION
DEUTSCH ½" MODULE — PART NUMBER

**** - ** * - *

Basic Identifier
Module position in shell
(A or B or C or D)
Module Type
See Table (Above)
Contact Type
  P = Pins
  S = Sockets
  B = Spacer
Modification

ONE-INCH MODULES (20 PIN)
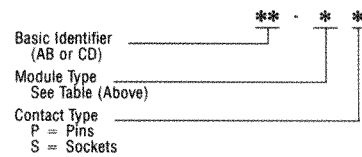

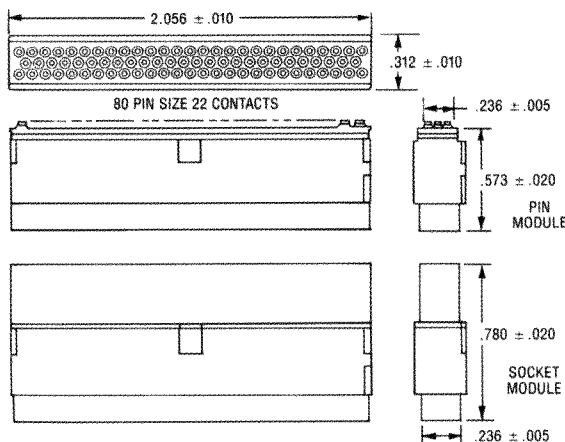.100 TYPICAL   .100

20 PIN SIZE 22 CONTACTS

PIN MODULE

SOCKET MODULE

INTERLOCKING KEY & KEYWAY ASSURES PROPER POSITION IN CONNECTOR.

ORDERING INFORMATION
DEUTSCH 1" MODULE — PART NUMBER

** - * *

Basic Identifier
(AB or CD)
Module Type
See Table (Above)
Contact Type
  P = Pins
  S = Sockets

TWO-INCH MODULES (80 PIN)

2.056 ± .010

.312 ± .010

80 PIN SIZE 22 CONTACTS

.236 ± .005

.573 ± .020

PIN MODULE

.780 ± .020

SOCKET MODULE

.236 ± .005

ORDERING INFORMATION
80 PIN MODULE — PART NUMBER

ABC 2 ** - ** *

Basic Identifier
Shell Size
  2 = 2" Shell
Shell Type
  0 = Flange Mount Receptacle
      (Assembled modules only)
  3 = Stack Mount Receptacle
  6 = Plug
Coupling Style
  A = Push, Pull
  B = Lanyard Release (Lanyard Plug Only)
  C = ¼ Lock (Plug and Receptacle)
Module Arrangements
  80 = 80 Contacts
  00 = Bulk Shell (No modules shipped with shells)
       Not available in flange mount receptacle
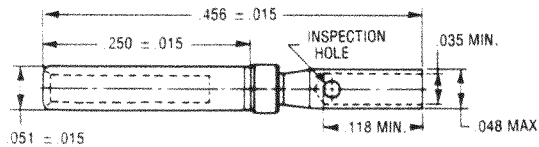Contacts
  P = Pin
  S = Sockets
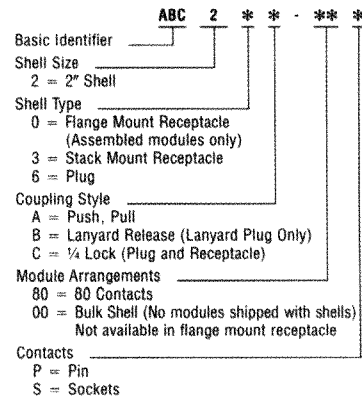
Ordering Contacts & Tooling

ORDERING CONTACTS & TOOLING

Size	Contact Deutsch Part No.	Style	Wire Gauge	Cromp Tool (Positioner)	Military Insertion/ Extraction Tools	Sealing Plugs Deutsch Part No	Strip Length ± 003	Color Code
22D	12331-22	Pin	22 thru 28	M22520/2-01	M81969/14-01	81539-23	160-190	Green
22D	12336-22	Socket	22 thru 28	(M22520/2-09)			160-190	Green
20	12331-20	Pin	20 thru 24	M22520/1-01	M81969/14-02	4113-4-2001	230-260	Red
20	12336-20	Socket	20 thru 24	(M22520/1-04)			230-260	Red
16	12331-16	Pin	20 thru 16	M22520/1-01	M81969/14-03	0613-1-1601	230-260	Blue
16	12336-16	Socket	20 thru 16	(M22520/1-04)			230-260	Blue
12	12331-12	Pin	20 thru 16	M22520/1-01	M81969/14-04	0613-1-1201	230-260	Yellow
12	12336-12	Socket	20 thru 16	(M22520/1-04)			230-260	Yellow

FIGURE 4A   CONTACT, SOCKET
22 GAGE SUBMINIATURE,
REAR INSERTION & REMOVAL

2803-4-0000

WIRE GAUGE RANGE	CRIMP TOOL	INSERTION AND REMOVAL TOOL
	DANIELS	
22 THRU 26	MH800-K127	M15570-22-1

WIRE INSULATION O.D.	STRIP LENGTH
039" TO .054"	5/32" TO 3/16"
033" TO .038"	1/8"

FIGURE 4B   CONTACT, PIN
22 GAGE SUBMINIATURE,
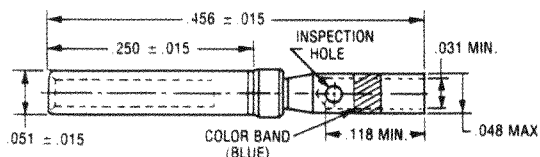### REAR INSERTION & REMOVAL

2841-5-9000
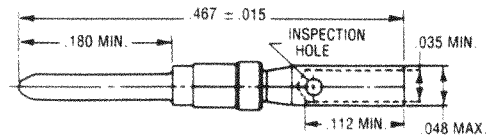
WIRE GAUGE RANGE	CRIMP TOOL	INSERTION AND REMOVAL TOOL
	DANIELS	
22 THRU 26	MH800-K127	M15570-22-1

WIRE INSULATION O.D.	STRIP LENGTH
039" TO .054"	5/32" TO 3/16"
033" TO .038"	1/8"

FIGURE 7A   CONTACT, SOCKET
26 THRU 30 GAGE WIRE
SIZE 22 SUBMINIATURE
REAR INSERTION & REMOVAL

WIRE GAUGE RANGE	CRIMP TOOL	INSERTION AND REMOVAL TOOL
	DANIELS	
26 THRU 30	MH800-K127	M15570-22-1

WIRE INSULATION O.D.	STRIP LENGTH
039" TO .054"	5/32" TO 3/16"
033" TO .038"	1/8"

FIGURE 7B   CONTACT, PIN
26 THRU 30 GAGE WIRE
SIZE 22 SUBMINIATURE
REAR INSERTION & REMOVAL
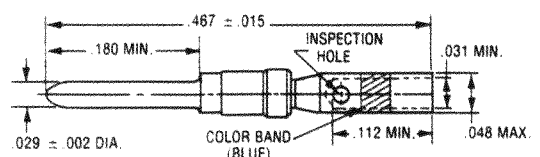
WIRE GAUGE RANGE	CRIMP TOOL	INSERTION AND REMOVAL TOOL
	DANIELS	
26 THRU 30	MH800-K127	M15570-22-1

WIRE INSULATION O.D.	STRIP LENGTH
039" TO .054"	5/32" TO 3/16"
033" TO .038"	1/8"

Ordering Information


```
                    ABC  *  *  *  -  ****  *  -  ****
Basic Identifier ───┘        │  │       │     │     │
Shell Size ──────────────────┘  │       │     │     │
  1 = 1 Inch, 2 = 2 Inch        │       │     │     │
Types ──────────────────────────┘       │     │     │
  0 = Recept. Flange Mount              │     │     │
  3 = Recept. Stack Mount               │     │     │
  6 = Plug                              │     │     │
Style ──────────────────────────────────┘     │     │
  A = Push Pull (Recept. Only)                │     │
  B = Lanyard Release (Plug Only)             │     │
  C = Quarter Lock                            │     │
  D = Rack and Panel*                         │     │
Module Arrangements                           │     │
  See Envelope Dwg. 55500 ────────────────────┘     │
  7000 = 1 Inch Shell w/No Modules                  │
  0000 = 2 Inch Shell w/No Modules                  │
Keying Positions                                    │
  A Thru Y                                           │
  See Envelope Dwg. 55500 ───────────────────────────┘
Modification ──────────────────────────────────────────┘
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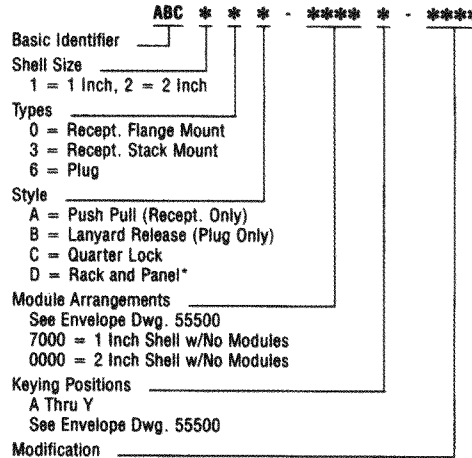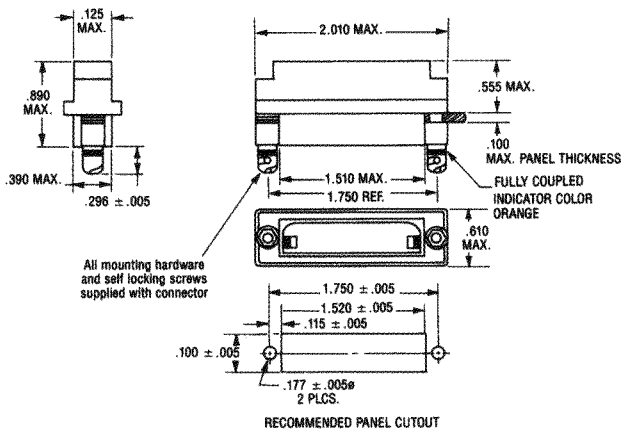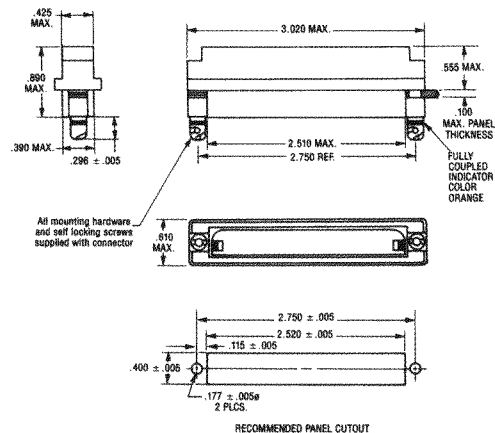
ABC 1" PLUG QUARTER LOCK
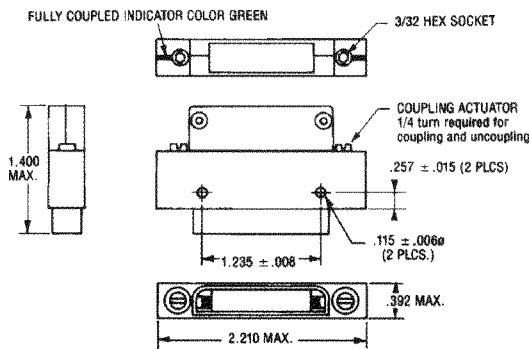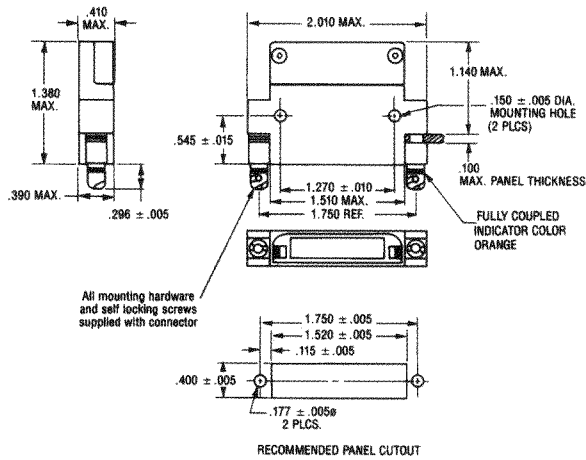

ABC 2" PLUG QUARTER LOCK
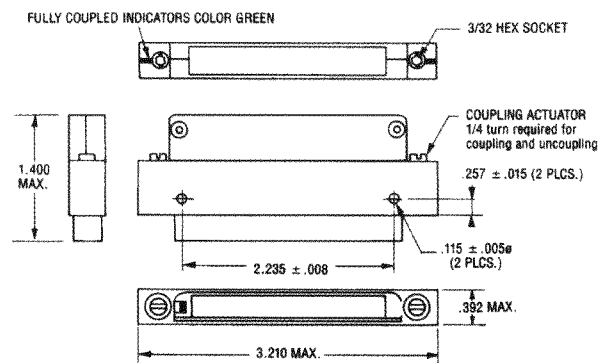
ABC 1" FLANGE MOUNT RECEPTACLE QUARTER LOCK
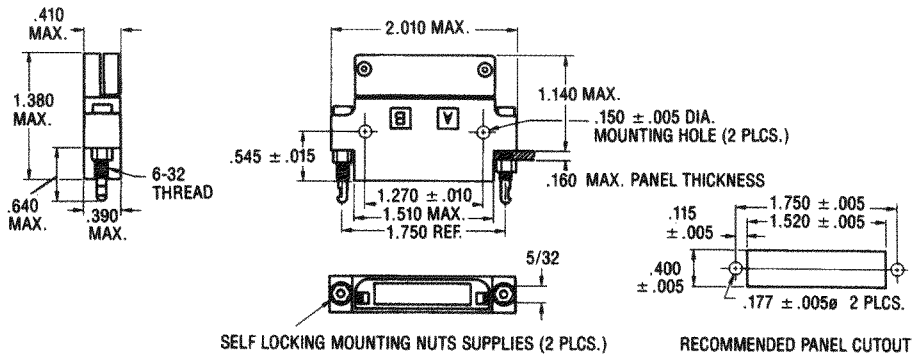

ABC 2" FLANGE MOUNT RECEPTACLE QUARTER LOCK

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ABC 1" RECEPTACLE QUARTER LOCK
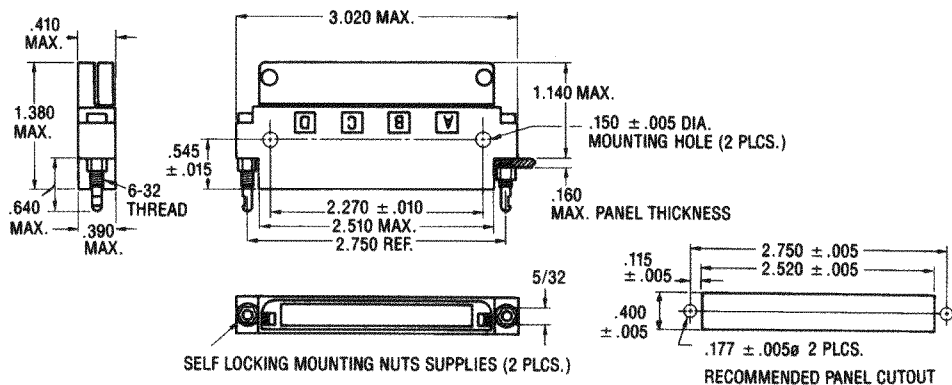

ABC 2" RECEPTACLE QUARTER LOCK
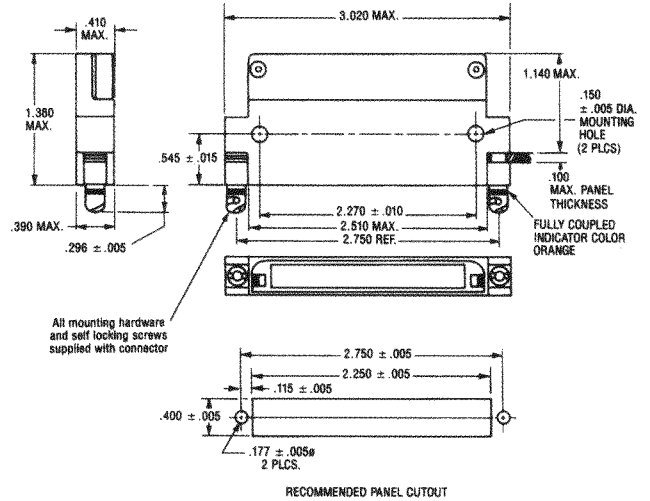
ABC 1" RECEPTACLE STACK MOUNTING

ABC 2" RECEPTACLE STACK MOUNTING

aflc8810310abc

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