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AEC Series Overview

DEUTSCH AEC series connectors are environmentally sealed, heavy duty electrical connectors that accept size 16 contacts. The AEC series connectors are constructed of rugged thermoplastic and offer several keying options.



DEUTSCH CONNECTOR PERFORMANCE SPECIFICATIONS

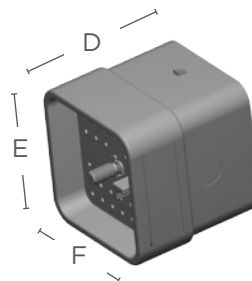
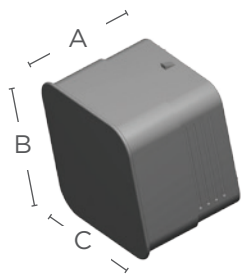
Temperature:	Operating at temperatures -55°C to +125°C
Durability:	No electrical or mechanical defects after 100 cycles of engagement and disengagement.
Vibration:	No unlocking or unmating and exhibits no mechanical or physical damage after sinusoidal vibration levels of 20 G's at 10 to 2000 Hz in each of the three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond.
Fluid Resistance:	Connectors show no damage when exposed to most fluids used in industrial applications.
Insulation Resistance:	1000 megohms minimum at 25°C.
Immersion:	IP68 rating
Moisture Resistance:	Properly wired and mated connections will withstand immersion under three feet of water without loss of electronic qualities or leakage.
Dielectric Withstanding Voltage:	Current leakage less than 2 milliamps at 1500 volts AC.
Thermal Cycle:	No cracking, chipping or leaking after 20 test cycles from -55°C to +125°C.

MATERIAL SPECIFICATIONS

Grommet:	Silicone rubber
Jackscrew:	Stainless steel
Plug Threaded Inserts:	Stainless steel
Receptacle Threaded Inserts:	Stainless steel/brass
Shell:	Glass filled PEI

AEC Series

DIMENSIONS



AEC Plug

AEC Receptacle

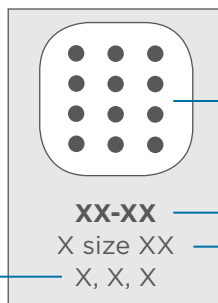
Cavity	Overall Length A	Overall Height B	Overall Width C	Overall Length D	Overall Height E	Overall Width F
40	1.440 (36.58)	1.778 (45.16)	1.894 (48.11)	1.642 (41.71)	1.944 (49.38)	1.828 (46.43)

Dimensions are for reference only.

CONFIGURATION

Keying Options

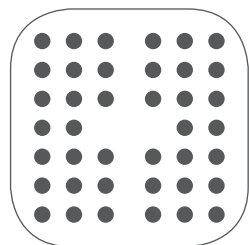
A	A key
B	B key
C	C key
D	D key
U	Universal key



Insert Arrangement

Part Number

Number and Size of Cavities



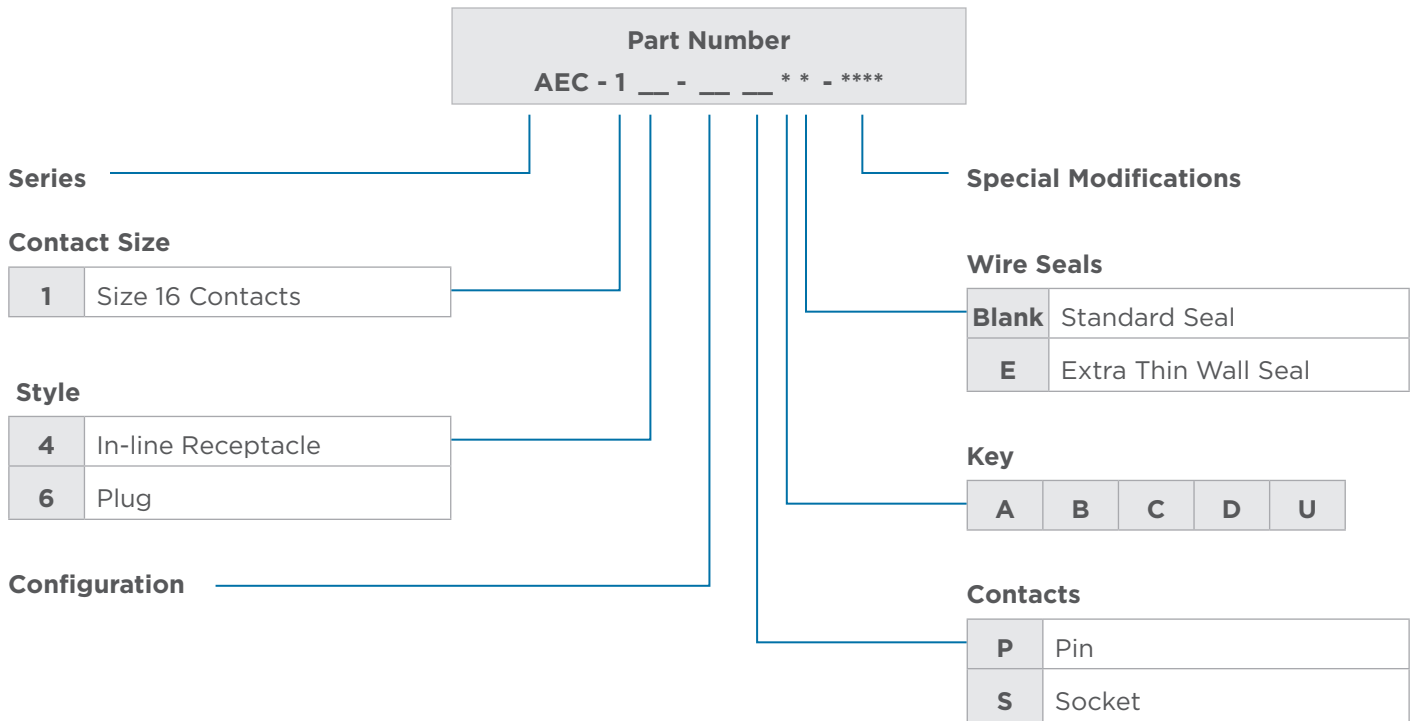
AEC1*-40***
40 size 16
A, B, C, D, U

Note

Do not over torque jackscrew.
The recommended torque rating for the AEC series plug jackscrew when tightening is 25-28 IN-LB (2.86-3.16 N.M.).

AEC Series

PART NUMBERING SYSTEM



ORDERING INFORMATION

Here are some of the common part numbers in the AEC series. Several additional connectors may be available.

Position	Keying	Plug	Receptacle
40	A	AEC16-40SA	AEC14-40PA
	B	AEC16-40SB	AEC14-40PB
	C	AEC16-40SC	AEC14-40PC
	D	AEC16-40SD	AEC14-40PD

WIRE SEALING RANGES

The wire sealing range is the recommended outside diameter of the wire insulation required to maintain an environmental seal in the rear connector cavities.

Contact Size	Standard Seal	Thin Seal T-Seal	Extra Thin Seal E-Seal
16 14-20 AWG (2.0-0.5mm ²)	.100-.134 (2.54-3.40)	.088-.134 (2.23-3.40)	.053-.120 (1.35-3.05)

AEC Series

Accessories

Dust caps and boots are available for use with AEC series connectors. The dust caps are designed to help provide protection to the connector interface when the connector halves are not mated. The boots are aesthetically appealing and provide increased protection from dirt, paint overspray, and pressure washing.



Dust Cap Description

Dust Cap Description	Part Number
Dust cap, 40 way receptacle, environmentally sealed	0504-002-4001
Dust cap, 40 way receptacle, non-environmentally sealed	0515-009-4005
Dust cap, 40 way plug, non-environmentally sealed	0515-010-4005

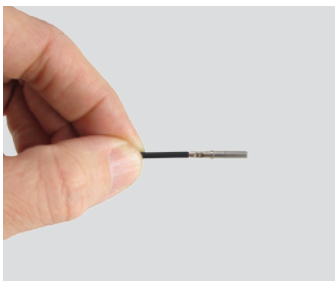
Boot Description

Boot Description	Part Number
Boot, 40 way plug or receptacle, black, step-down	AEC40-BT-STPDWN

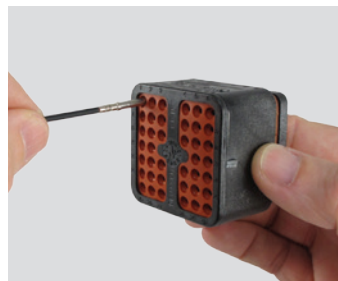
*Distorting the boots can lessen their longevity

How To Instructions

CONTACT INSERTION



Step 1:
Grasp crimped contact approximately one inch behind the contact barrel.

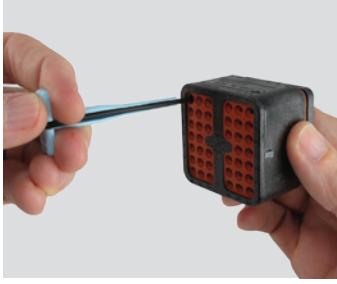


Step 2:
Hold connector with rear grommet facing you.

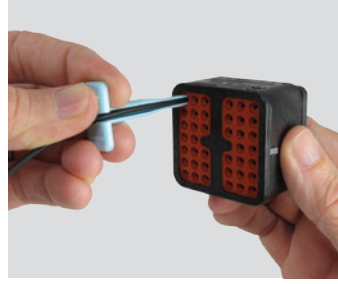


Step 3:
Push contact straight into connector grommet until a click is felt. A slight tug will confirm that it is properly locked in place.

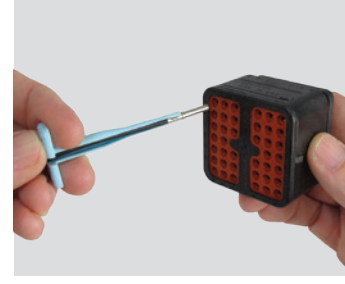
CONTACT REMOVAL



Step 1:
With rear insert toward you, snap appropriate size removal tool over the wire of contact to be removed.



Step 2:
Slide tool along the wire into the insert cavity until it engages contact and resistance is felt.



Step 3:
Pull contact wire assembly out of connector.