

DRC Series Overview

The environmentally sealed DEUTSCH DRC series is a rectangular connector series that offers insert arrangements of 24, 40, 50, 60, 64, 70, and 76 cavities and accepts size 12, 16, and 20 contacts. Several mounting options are available including in-line, flange mount, and PCB mount.



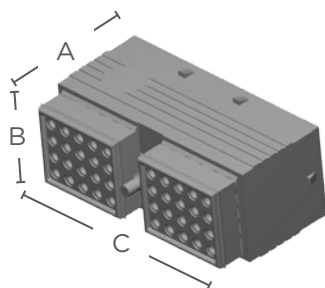
DEUTSCH CONNECTOR PERFORMANCE SPECIFICATIONS

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.

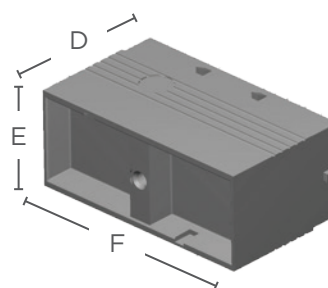
MATERIAL SPECIFICATIONS

Grommet:	Silicone rubber
Insert Retainer:	Unfilled PEI
JackscREW:	Stainless steel
Receptacle Threaded Inserts:	Stainless steel/Brass
Shell:	Glass filled PA, Glass filled PPS

DIMENSIONS



DRC Plug



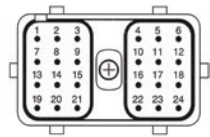
DRC Receptacle

Cavity	Overall Length A	Overall Height B	Overall Width C	Overall Length D	Overall Height E	Overall Width F
24 (sz. 20)	1.435 (36.45)	1.244 (31.60)	2.004 (50.90)	1.785 (45.34)	1.500 (38.10)	3.104 (78.84)
24 (sz. 16)	1.600 (40.64)	1.148 (29.16)	2.100 (53.34)	1.742 (44.25)	1.202 (30.53)	2.154 (54.71)
38	1.435 (36.45)	1.274 (32.36)	2.700 (68.58)	-	-	-
40 (sz. 20)	1.380 (35.05)	1.244 (31.60)	2.700 (68.58)	1.785 (45.34)	1.500 (38.10)	3.800 (96.52)
40 (sz. 16)	1.597 (40.56)	1.202 (30.53)	2.868 (72.85)	1.699 (43.15)	1.202 (30.53)	2.908 (73.86)
50	1.435 (36.45)	1.408 (35.76)	2.700 (68.58)	-	1.987 (50.47)	3.094 (78.59)
60	1.435 (36.45)	1.448 (36.78)	2.700 (68.58)	-	2.161 (54.89)	3.094 (78.59)
64	-	-	-	1.785 (45.34)	1.500 (38.10)	5.866 (149.00)
70	1.643 (41.73)	1.421 (36.09)	4.094 (103.99)	1.757 (44.63)	1.421 (36.09)	4.094 (103.99)
76	-	-	-	1.115 (28.32)	1.827 (46.41)	5.686 (144.42)

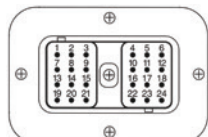
Dimensions are for reference only.

CONNECTOR STYLES

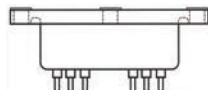
In-line
Receptacle



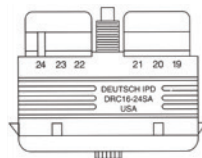
Flange Mount
Receptacle



PCB Receptacle



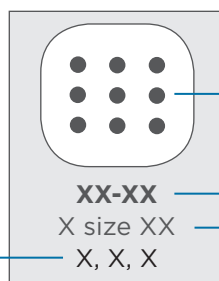
Standard Plug



CONFIGURATIONS

Connector Styles

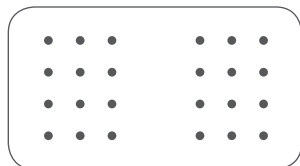
I	In-line
F	Flange Mount Receptacle
P	PCB Receptacle



Insert Arrangement

Part Number

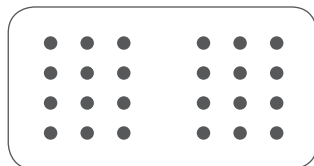
Number and Size of Cavities



DRC2*-24**

24 size 20

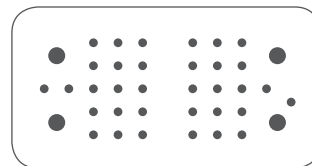
I, F, P



DRC1*-24**

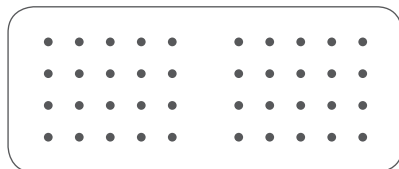
24 size 1

I, F, P



DRC26-38**

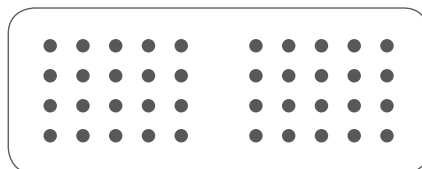
34 size 20, 4 size 12
(Plug for **DRC20-76P******)



DRC2*-40**

40 size 20

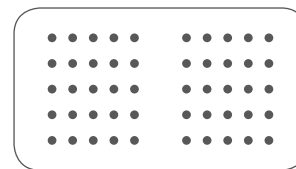
F, P



DRC1*-40**

40 size 16

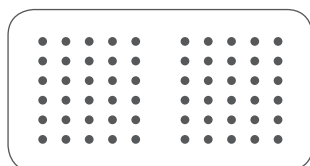
I, F, P



DRC2*-50**

50 size 20

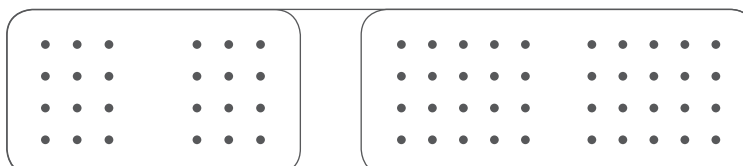
P



DRC2*-60**

60 size 20

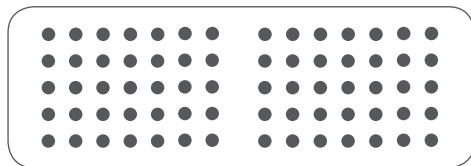
P



DRC2*-64**

64 size 20

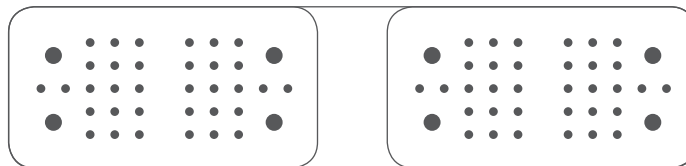
P



DRC1*-70**

70 size 16

I, F, P



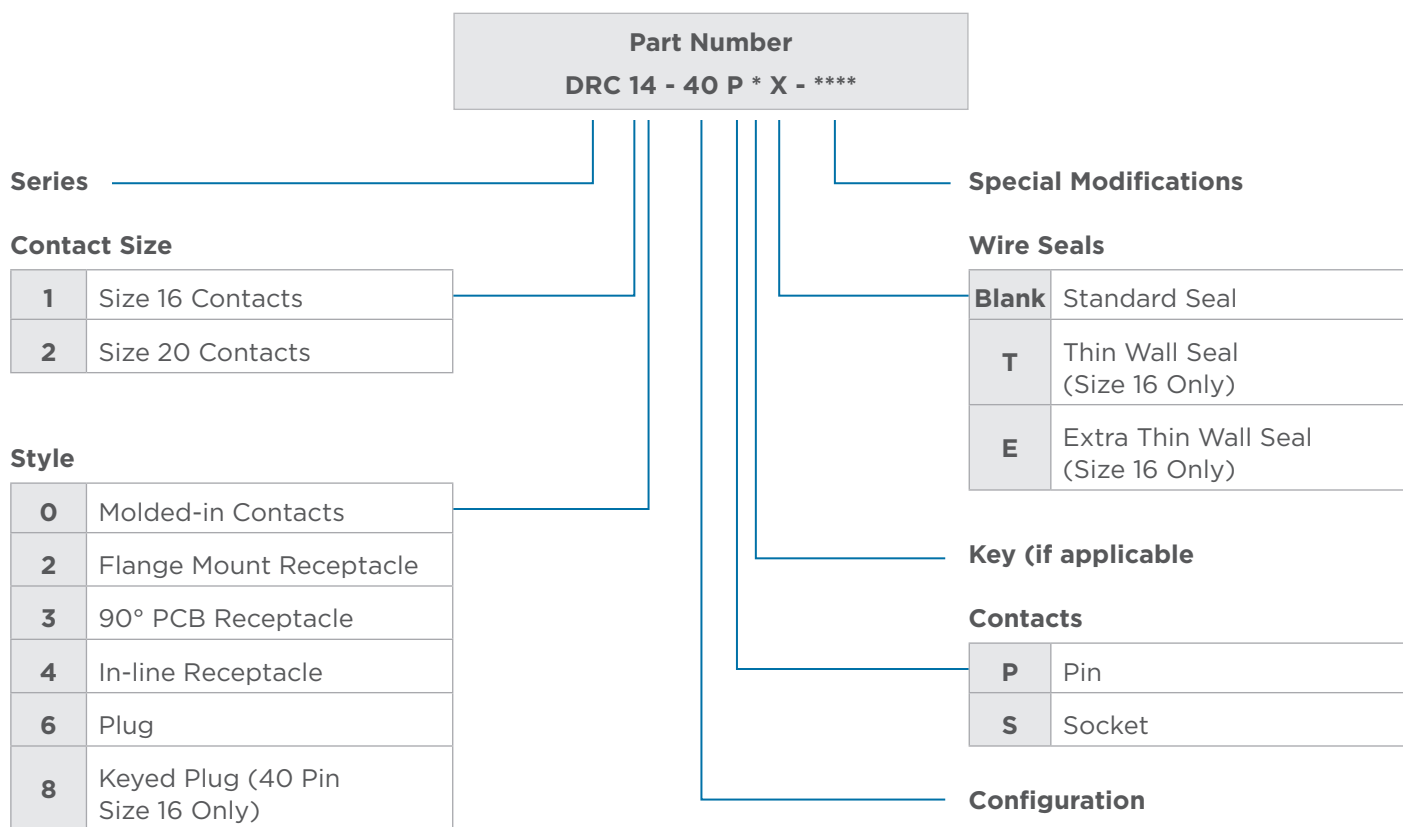
DRC20-76P****

68 size 20, 8 size 12

P

DRC Series

PART NUMBERING SYSTEM



ORDERING INFORMATION

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

Position	Key	Plug	Receptacle In-line	Receptacle Flange	Receptacle PCB
24 (sz. 20)	A	DRC26-24SA	-	-	DRC23-24PA (90°)
	B	DRC26-24SB	-	-	DRC23-24PB (90°)
	C	DRC26-24SC	-	-	DRC23-24PC (90°)
	D	DRC26-24SD	-	-	DRC23-24PD (90°)
24 (sz. 16)	A	DRC16-24SA	DRC14-24PA	DRC12-24PA	DRC10-24PA (180°)
					DRC13-24PA (90°)
	B	DRC16-24SB	DRC14-24PB	DRC12-24PB	DRC10-24PB (180°)
					DRC13-24PB (90°)
	C	DRC16-24SC	DRC14-24PC	DRC12-24PC	DRC10-24PC (180°)
					DRC13-24PC (90°)
	D	DRC16-24SD	DRC14-24PD	DRC12-24PD	DRC10-24PD (180°)
					DRC13-24PD (90°)
38 (sz. 20)	01	DRC26-38S01-P017	-	-	DRC20-76P0102 (180°)
	02	DRC26-38S02-P017	-	-	

ORDERING INFORMATION (CONTINUED)

Position	Key	Plug	Receptacle In-line	Receptacle Flange	Receptacle PCB
40 (sz. 20)	A	DRC26-40SA	-	DRC22-40PA	DRC23-40PA (90°)
	B	DRC26-40SB	-	DRC22-40PB	DRC23-40PB (90°)
	C	DRC26-40SC	-	DRC22-40PC	DRC23-40PC (90°)
	D	DRC26-40SD	-	DRC22-40PD	DRC23-40PD (90°)
40 (sz. 16)	A	DRC18-40SA	DRC14-40PA	DRC12-40PA	DRC10-40PA (180°)
					DRC13-40PA (90°)
	B	DRC18-40SB	DRC14-40PB	DRC12-40PB	DRC10-40PB (180°)
					DRC13-40PB (90°)
	C	DRC18-40SC	DRC14-40PC	DRC12-40PC	DRC10-40PC (180°)
					DRC13-40PC (90°)
	D	DRC18-40SD	DRC14-40PD	DRC12-40PD	DRC10-40PD (180°)
					DRC13-40PD (90°)
50 (sz. 20)	01	DRC26-50S01	-	-	DRC20-50P01 (180°, outside mount)
					DRC22-50P01 (180°, inside mount)
	02	DRC26-50S02	-	-	DRC20-50P02 (180°, outside mount)
					DRC22-50P02 (180°, inside mount)
	03	DRC26-50S03	-	-	DRC20-50P03 (180°, outside mount)
					DRC22-50P03 (180°, inside mount)
	04	DRC26-50S04	-	-	DRC20-50P04 (180°, outside mount)
					DRC22-50P04 (180°, inside mount)
60 (sz. 20)	05	DRC26-60S05	-	-	-
	06	DRC26-60S06	-	-	-
	07	DRC26-60S07	-	-	-
64 (sz. 20)	AA	DRC26-24SA/ DRC26-40SA	-	-	DRC23-64PAA (90°)
70 (sz. 16)	A	DRC16-70SA	DRC14-70PA	DRC12-70PA	DRC13-70PA
	B	DRC16-70SB	DRC14-70PB	DRC12-70PB	DRC13-70PB
	C	DRC16-70SC	DRC14-70PC	DRC12-70PC	DRC13-70PC
	D	DRC16-70SD	DRC14-70PD	DRC12-70PD	DRC13-70PD
76 (sz. 20 and sz. 12)	01/02	DRC26-38S01-P017/ DRC26-38S02-P017	-	-	DRC20-76P0102 (180°)

DRC Series

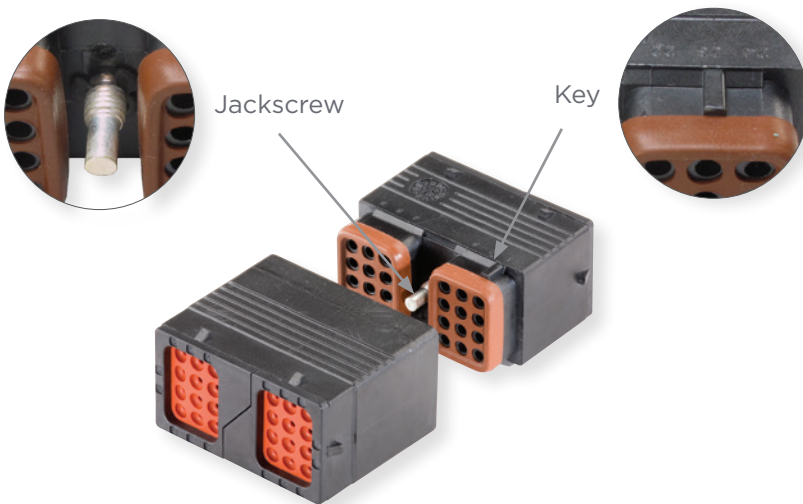
WIRE SEALING RANGE

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
20 16-22 AWG (1.0-0.35mm ²)	.040-.095 (1.02-2.41)	.040-.095 (1.02-2.41)	.040-.095 (1.02-2.41)
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)
12 10-14 AWG (6.0-2.0mm ²)	.097-.170 (2.46-4.95)	.113-.170 (2.87-4.32)	.097-.158 (2.46-4.01)

MATING CRITERIA

DEUTSCH DRC series plugs are keyed to provide positive alignment and to prevent mis-mating.



Note

Do not over torque jackscrew.
The recommended torque
rating for the DRC series plug
jackscrew when tightening is
25-28 IN-LB (2.82-3.16 N.M.).

Accessories

Several accessory items are available to complement the connectors including boots, gaskets, backshells, and wire routers. Accessories are designed to complete the application and meet a wide array of design requirements such as providing additional protection and offering increased aesthetics.

BACKSHELLS

DEUTSCH DRC series backshells are designed to snap onto the back of the connectors and accept convoluted tubing. The rigid, durable backshells offer a high level of protection, provide strain relief, and improve aesthetics.



Connector Cavities	Part Number	Description
38	0528-003-3805	90° backshell to the side, plug
38	0528-004-3805	90° backshell, plug
38	0528-005-3805	90° low profile backshell, plug
40	0515-015-4005	Wire router, plug
50	0528-001-5005	90° backshell, plug
60	0528-002-6005	90° backshell, plug
60	0528-007-6005	90° backshell to the side, plug
70	0515-029-7005	Straight wire router, plug
70	0515-031-7005	Straight wire router, plug or receptacle,
70	0528-006-7005	Straight backshell, plug or receptacle, requires two halves and wire router
70	0528-012-7005	90° backshell to the side, plug or receptacle, without tubing rib

BOOTS



Boots provide a professional looking finishing touch for DEUTSCH DRC series connectors. Made of durable plastisol, these slip-on boots are not only aesthetically appealing, but also provide increased protection from dirt, paint overspray, and pressure washing. The plastisol boots are rated from -20°F to +212°F (-28°C to +100°C) and offer a slip-on design making installation quick and easy.



Part Number	Description
DRC24-BT	24 way boot, size 16 contact arrangements, black
DRC26-24BT	24 way boot, size 20 contact arrangements, black
DRC40-BT	40 way boot, size 16 contact arrangements, black
DRC40-BT-90DEG	40 way boot, size 16 contact arrangements, 90° bend, black
DRC26-40BT	40 way boot, size 20 contact arrangements, black
DRC70-BT	70 way boot, size 16 contact arrangements, black

*Distorting the boots can lessen their longevity

GASKETS



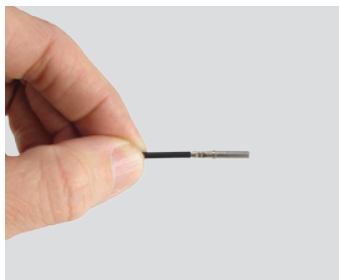
Moisture, dirt, salt, sand, and road debris can all work their way into electrical panels through unsealed mounting flanges. Rated to operate in environments from -70°F to +225 F (-56°C to +107°C), these rugged high quality neoprene gaskets form a tight seal between the panel face and connector flange to help keep out destructive elements. The gaskets have a thickness of .125" and the material meets the UL-94-HBF, Mil-R-6130C, and FMVSS-302 flammability specifications.



Gasket Part Number	Connector Part Number
DRC24-GKT	DRC12-24P**
DRC40-GKT	DRC12-40P**
DRC70-GKT	DRC12-70P**

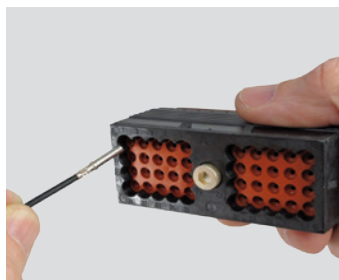
How To Instructions

CONTACT INSERTION



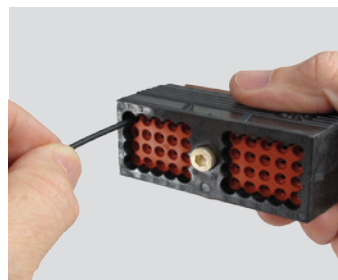
Step 1:

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



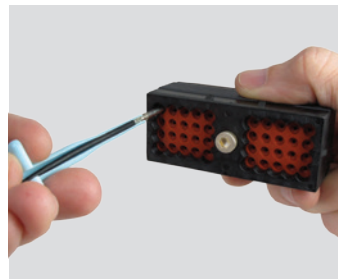
Step 1:

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.