

Deutsch Connectors



Deutsch Connectors – 'DT-Series'

Deutsch's DT Series connectors offer field proven reliability and rugged quality. The DT design strengths include optional flange mounting, multi-pin arrangements, lower cost, and design flexibility. The DT Series offers the designer the ability to use multiple size 16 contacts, each with 13 amp continuous capacity, within a single shell. (Pictures are shown with front and back view for illustrative purposes only)

Material Specifications

Contacts:

Pin & Socket: Copper alloy

Finish: Nickel plating

Optional: Gold plating



*763306 (0462-201-16141)



*763307 (0460-202-16141)



*763308 (0462-209-16141)



*763309 (0460-215-16141)

'DT-Series': Contacts (Solid Barrel)

Type	Barrel Type	GA Size	Deutsch# (Contact)	10 PCS/PK	100 PCS/PK
Socket	Solid Barrel	20-16GA	0462-201-16141	*763306	*763306C
Pin	Solid Barrel	20-16GA	0460-202-16141	*763307	*763307C
Socket	Solid Barrel	16-14GA	0462-209-16141	*763308	*763308C
Pin	Solid Barrel	16-14GA	0460-215-16141	*763309	*763309C



*763314 (1062-16-0622 / 1062-16-0122)



*763315 (1060-16-0622 / 1060-16-0122)



*763316 (1062-14-0122)



*763317 (1060-14-0122)

'DT-Series': Contacts (Open Barrel)

Type	Barrel Type	GA Size	Deutsch# (Contact)	10 PCS/PK	100 PCS/PK
Socket	Open Barrel	18-16GA	1062-16-0622 / 1062-16-0122	*763314	*763314C
Pin	Open Barrel	18-16GA	1060-16-0622 / 1060-16-0122	*763315	*763315C
Socket	Open Barrel	16-14GA	1062-14-0122	*763316	*763316C
Pin	Open Barrel	16-14GA	1060-14-0122	*763317	*763317C

Deutsch Connectors – Empty Cavity Plug

Open cavities can provide pathways for contaminants to enter the connectors. To ensure integrity of the seal, fill any unused cavity with the appropriate size sealing plug.



*763305 (114017)

Empty Cavity Plug

Deutsch#	GA Size Range	Contact Size	10 PCS/PK	100 PCS/PK
114017	20-12GA	Size 16,12	*763305	*763305C

A Deutsch to
 Techspan part#
 Interchange can
 be found on
 page 63

Deutsch Connectors



'DT-Series'

Material Specifications

Grommet: Silicone rubber
 Insert Retainer: Thermoplastic
 Receptacle Interfacial Seal: Silicone rubber
 Shell: Thermoplastic
 Wedgelocks: Thermoplastic

Key Features:

- Accepts contact size 16 (13 amps)
- 20-14GA
- 2, 3, 4, 6, 8, and 12 cavity arrangements
- In-line, flange, or PCB mount
- Rectangular, thermoplastic housing
- Integrated latch for mating
- Wedgelocks assure contact alignment and retention

'DT-Series': Housings & Wedgelocks

	'DT-Series' Housings & Wedgelocks	Deutsch# (Housing + Wedgelock)	1 Set	10 Sets
	2-Way Receptacle Housing & Wedgelock	DT04-2P + W2P	*763324	*763324B
	2-Way Plug Housing & Wedgelock	DT06-2S + W2S	*763325	*763325B
	3-Way Receptacle Housing & Wedgelock	DT04-3P + W3P	*763326	*763326B
	3-Way Plug Housing & Wedgelock	DT06-3S + W3S	*763327	*763327B
	4-Way Receptacle Housing & Wedgelock	DT04-4P + W4P	*763328	*763328B
	4-Way Plug Housing & Wedgelock	DT06-4S + W4S	*763329	*763329B
	6-Way Receptacle Housing & Wedgelock	DT04-6P + W6P	*763330	*763330B
	6-Way Plug Housing & Wedgelock	DT06-6S + W6S	*763331	*763331B
	8-Way Receptacle Housing & Wedgelock	DT04-08P(A) + W8P	*763332	*763332B
	8-Way Plug Housing & Wedgelock	DT06-08S(A) + W8S	*763333	*763333B
	12-Way Receptacle Housing & Wedgelock	DT04-12P(A) + W12P	*763334	*763334B
	12-Way Plug Housing & Wedgelock	DT06-12S(A) + W12S	*763335	*763335B

'DT-Series': 2-Way



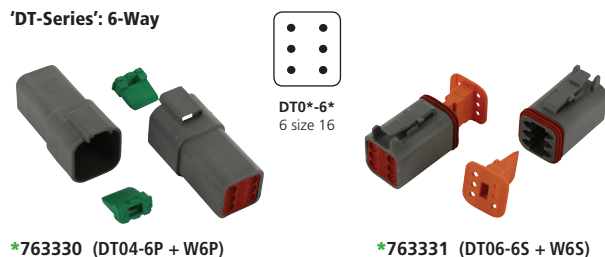
'DT-Series': 3-Way



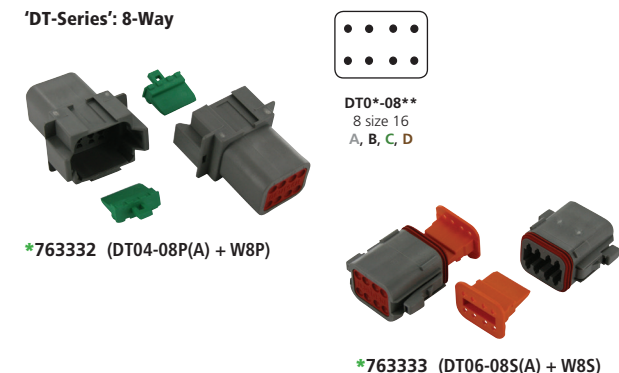
'DT-Series': 4-Way



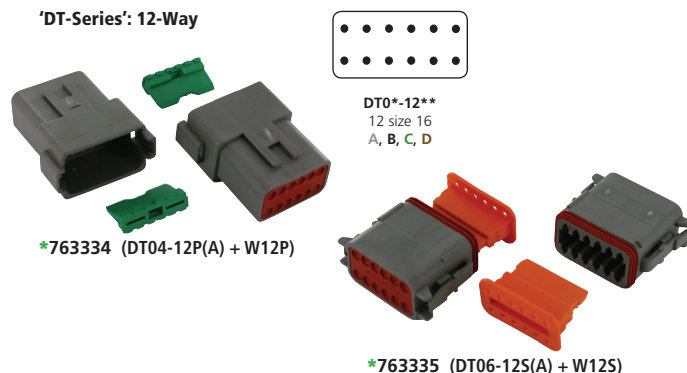
'DT-Series': 6-Way



'DT-Series': 8-Way



'DT-Series': 12-Way



Deutsch Connectors – Tools

Deutsch Connectors – Removal Tools

These removal tools are designed to facilitate contact removal and field service repair in all connectors that use a round shoulder contact retention system. Removal tools are compact, easy to use, and are made with heavy-duty plastic so that removal of contacts is done without damage to wire, insulation, connector body or connector seals. The removal tools are required for wire removal in the DTHD, Jiffy Splices, HD10, HDP20, HD30, DRC, AEC and WT-Series. Approximate length: 2-1/4" (57.15mm)



*763301 (0411-240-2005)



*763302 (0411-336-1605)



*763303 (0411-204-1605 / 0411-310-1605)



*763304 (0411-291-1405)

Deutsch#	GA Size Range	Contact Size	Colour	Part #
0411-240-2005	24-20GA	Size 20	Red	*763301
0411-336-1605	18-16GA Extra Thin Wall (E-Seal)	Size 16	Dark Blue	*763302
0411-204-1605 / 0411-310-1605	18-16GA	Size 16	Light Blue	*763303
0411-291-1405	16-14GA	Size 16	Green	*763304

Deutsch Connectors – Crimp Tools

HDT-48-00 Crimp Tool

The HDT-48-00 Crimp Tool is the most commonly used tool for solid contacts, and will crimp a wide range of contact sizes with no need to change out dies or locators. It provides a tight, complete, symmetrical '4-indent' crimp, with minimal effort. Its compact feature makes it easy to use for field service, yet is durable and reliable enough for low volume production. Hand crimp tools for stamped & formed contacts are wire gauge specific and simultaneously crimp the insulation and conductor, saving time and effort during field service. Approximate length: 10-1/4" (260.35mm)



*763300 (HDT-48-00)



Deutsch#	Contact Size	Part #
HDT-48-00	Size 16	*763300

763300 (HDT-48-00) will crimp the following contacts:

Deutsch#	Part #	Deutsch#	Part #
0460-202-16141	*763307(C)	0462-201-16141	*763306(C)
0460-202-20141	*763311(C)	0462-201-20141	*763310(C)
0460-204-12141	*763313(C)	0462-203-12141	*763312(C)
0460-215-16141	*763309(C)	0462-209-16141	*763308(C)



*763352



4-Way Indent Crimp Tool

***763352** Crimps 22GA to 16GA Deutsch Connector Contacts. Ratchet mechanism releases only after proper crimp force is applied assuring reliable connections every time. Locator holds contacts in place during the crimping process. This tool can be also used to crimp closed/solid barrel, screw machine pin and socket style contacts. Performs a simultaneous 4-way indent crimp for superior contact retention. Approximate length: 6-1/2" (165.10mm)



Open Barrel Terminal Crimp Tool

***761436** Crimps 24GA to 14GA OEM and Open Barrel Terminals. Provides a precision 'F'-shaped crimp. Length: 8-1/4" (209.55mm)

Deutsch Connectors

Features & Benefits

Deutsch connectors are ideal where dust, dirt, moisture, salt spray, and vibration can contaminate or damage electrical connections.

Deutsch Features

- **Common contacts** – a small number of contacts terminates multiple Deutsch connectors.
- **Maximum current rating** – majority of the contacts do not require a derating curve to determine proper application.
- **Common tooling** – hand crimp tools, automated or semi-automated tooling are available for solid or stamped & formed contacts.
- **Environmental seal** – will handle extreme applications.
- **Gas tight crimp terminations** – when properly crimped, provide a gas tight crimp which is highly resistant to increases in resistance as a result of temperature and oxidation.
- **High performance molded shells** – impact resistant and fire retardant.
- **Redundant silicone seals** – many connectors feature integral components that reduce wire termination assembly time and cost.
- **Hand insertable/removable contacts** – no special contact insertion tools and simplified service.
- **Keying options** – prevents mismatching in multiple connector applications.
- No contact retention “tang.”
- Extended wire sealing ranges.

Deutsch Benefits

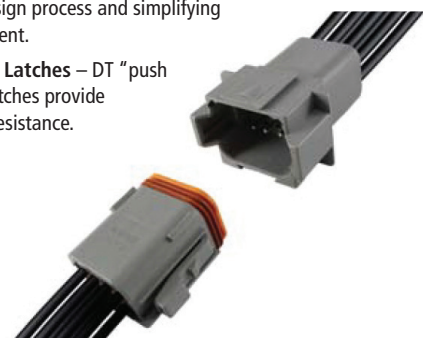
- ✓ Easy to use
- ✓ Minimized warranty claims
- ✓ Added customer value
- ✓ Lower tooling costs
- ✓ Minimized electrical failures
- ✓ Eliminate mismatching
- ✓ Reduced assembly time
- ✓ Simplified field service
- ✓ Decreased down time
- ✓ Reduced repair time
- ✓ Increased product confidence
- ✓ Reduced repair expense
- ✓ Lower inventory cost
- ✓ Increased reliability



Why Deutsch is Better

Deutsch industrial environmentally sealed electrical connectors are for critical applications where failure is not an option. Deutsch connectors are designed to withstand the harshest and most challenging environments. Deutsch industrial connectors feature:

- **A Common Contact System** – A single contact system terminates all Deutsch connectors by utilizing common tooling and processes. The only variation among the contacts is the size of the terminal, which is dictated by the wire gauge.
- **Increased Socket-Terminal Performance** – Deutsch sockets are copper crimp-type terminals with a stainless steel sleeve covering the contact fingers. The sleeve protects the fingers from damage and increases service life.
- **Air-Tight Crimp Terminations** – When properly crimped, Deutsch terminations provide an air-tight crimp which is highly resistant to increases in resistance caused by oxidation and variations in temperature.
- **No Retention “Tangs”** – Deutsch contact retention is part of the connector body, not the contact, and therefore not exposed to damage during assembly and rework.
- **Exact Contact Process Control** – Deutsch solid contacts are manufactured by a cold-forming process, eliminating most random variations and leading to consistent and predictable performance.
- **Exact Metal Process Control** – Deutsch metal shells are manufactured by a cold-extrusion process which reduces the quantity of raw material needed and eliminating water penetration through the shell. This process leads to higher performance and lower cost.
- **Hi-Performance Molded Shells** – To reduce the risk of fire, Deutsch uses flame-retardant, high-grade thermoplastics for all molded Deutsch connector components.
- **Dielectric Contact Retention** – The Deutsch contact retention system requires terminal insertion through the rear of the connector, increasing production speed and lowering cost by eliminating the need to terminate the wire after it has passed through the connector.
- **Silicon Wire Seals** – Deutsch wire seals are an integral component of the connector, eliminating the need to assemble separate wire seals on leads, and reducing wire termination assembly time and cost.
- **No Additional Sealing Required** – Deutsch connector interfacial seals lower assembly cost because they do not require “graffo grease” or other additives to make them water-proof.
- **Impact Resistant Materials** – Rugged thermoplastic materials are selected to prevent breakage caused by impact during use.
- **Fail Safe Connector Assembly** – DT connectors are designed to allow the wedgelock to be installed only if the contacts are fully and properly inserted, and to allow the connectors to mate only if the wedgelocks are fully inserted.
- **Improved Field Performance** – Deutsch connectors are designed to carry the rated current at maximum rated temperature.
- **Extended Wire Sealing Range** – Deutsch connector wire seals are designed to seal properly over a broad wire diameter range. Deutsch connectors provide secure wire seals with a minimum number of parts, streamlining the design process and simplifying inventory management.
- **Damage Resistant Latches** – DT “push down” connector latches provide increased damage resistance.



Deutsch Connectors

Technical Specifications

Deutsch Industrial takes great pride in designing and manufacturing superior environmentally sealed electrical connectors. Deutsch electrical connectors will stand up to the harsh environmental challenges that are common to industrial markets that require advanced performance. Deutsch can only warrant electrical performance when proper parts, procedures, and tooling are used.

Temperature

Operating at temperatures from -55°C to +125°C continuous at rated current.

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.

Physical Shock

No unlocking, unmating, or other unsatisfactory result during or after 50 G's in each of three mutually perpendicular planes. No electrical discontinuities longer than 1 microsecond. MIL-STD 202, Method 213, Condition "C".

Fluid Resistance

Connectors show no damage when exposed to most fluids used in industrial applications.

Insulation Resistance

1000 megohms minimum at 25°C.

Moisture Resistance

Properly wired and mated connections will withstand immersion under three feet of water without loss of electronic qualities or leakage.

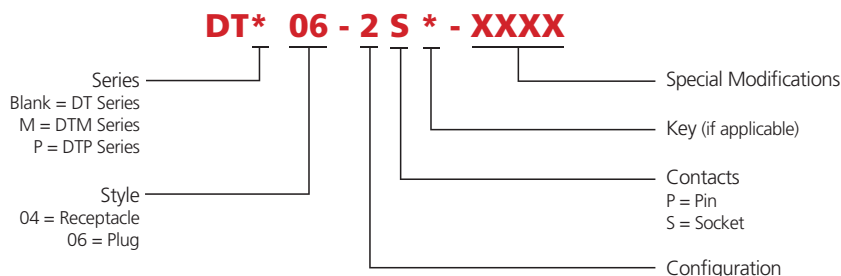
Dielectric Withstanding Voltage

Current leakage less than 2 milliamps at 1500 VAC.

Thermal Cycle

No cracking, chipping or leaking after 20 test cycles from -55°C to +125°C.

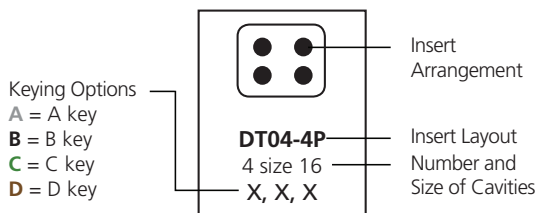
DT Family Product Code



Connector Overview

All Deutsch connectors are designed for harsh environments where dust, dirt, moisture, and vibration can damage electrical connections. Deutsch Industrial offers a comprehensive product line that features connector options to meet a myriad of design requirements. Cavity arrangements are available from 1 to 128 cavities, and wire gauges from 26 AWG up to 3/0 AWG. Deutsch connectors offer different shapes, latching mechanisms, mounting styles, and materials to meet diverse application requirements and all Deutsch product lines offer accessories to further expand the series flexibility.

DT Family Connector Configurations



Deutsch Connectors Interchange Table

Deutsch#	Description	Part# 1 PC	Part# 10 PCS	Part# 100 PCS	Part# 1 SET	Part# 10 SETS
114017	CAVITY SEAL PLUG		763305	763305C		
0411-204-1605	REMOVAL TOOL, 18-16GA BLUE (LIGHT)	763303				
0411-240-2005	REMOVAL TOOL, 24-20GA RED	763301				
0411-291-1405	REMOVAL TOOL, 16-14GA GREEN	763304				
0411-310-1605	REMOVAL TOOL, 18-16GA BLUE (LIGHT)	763303				
0411-336-1605	REMOVAL TOOL, 18-16GA BLUE (DARK)	763302				
0460-204-12141	CONTACTS (HD20/HD30/DTHD) – PIN (SOLID BARREL) 14-12GA		763313	763313C		
0460-202-16141	CONTACTS (DT) – PIN (SOLID BARREL) 20-16GA		763307	763307C		
0460-202-20141	CONTACTS (DTM) – PIN (SOLID BARREL) 20-14GA		763311	763311C		
0460-215-16141	CONTACTS (DT) – PIN (SOLID BARREL) 16-14GA		763309	763309C		
0462-201-16141	CONTACTS (DT) – SOCKET (SOLID BARREL) 20-16GA		763306	763306C		
0462-201-20141	CONTACTS (DTM) – SOCKET (SOLID BARREL) 20-14GA		763310	763310C		
0462-203-12141	CONTACTS (HD20/HD30/DTHD) – SOCKET (SOLID BARREL) 14-12GA		763312	763312C		
0462-209-16141	CONTACTS (DT) – SOCKET (SOLID BARREL) 16-14GA		763308	763308C		
1060-12-0166	CONTACTS (DTP) – PIN (OPEN BARREL) 14-12GA		763321	763321C		
1060-12-0222	CONTACTS (DTP) – PIN (OPEN BARREL) 12-10GA		763323	763323C		
1060-14-0122	CONTACTS (DT) – PIN (OPEN BARREL) 16-14GA		763317	763317C		
1060-16-0122	CONTACTS (DT) – PIN (OPEN BARREL) 18-16GA		763315	763315C		
1060-16-0622	CONTACTS (DT) – PIN (OPEN BARREL) 18-16GA		763315	763315C		
1060-20-0122	CONTACTS (DTM) – PIN (OPEN BARREL) 20-16GA		763319	763319C		
1060-20-0222	CONTACTS (DTM) – PIN (OPEN BARREL) 20-16GA		763319	763319C		
1062-12-0166	CONTACTS (DTP) – SOCKET (OPEN BARREL) 14-12GA		763320	763320C		
1062-12-0222	CONTACTS (DTP) – SOCKET (OPEN BARREL) 12-10GA		763322	763322C		
1062-14-0122	CONTACTS (DT) – SOCKET (OPEN BARREL) 16-14GA		763316	763316C		
1062-16-0122	CONTACTS (DT) – SOCKET (OPEN BARREL) 18-16GA		763314	763314C		
1062-16-0622	CONTACTS (DT) – SOCKET (OPEN BARREL) 18-16GA		763314	763314C		
1062-20-0122	CONTACTS (DTM) – SOCKET (OPEN BARREL) 20-16GA		763318	763318C		
1062-20-0222	CONTACTS (DTM) – SOCKET (OPEN BARREL) 20-16GA		763318	763318C		
DT04-08P + W8P	8 WAY RECEPTACLE HOUSING & WEDGELOCK (DT-SERIES)				763332	763332B
DT04-12P + W12P	12 WAY RECEPTACLE HOUSING & WEDGELOCK (DT-SERIES)				763334	763334B
DT04-2P + W2P	2 WAY RECEPTACLE HOUSING & WEDGELOCK (DT-SERIES)				763324	763324B
DT04-3P + W3P	3 WAY RECEPTACLE HOUSING & WEDGELOCK (DT-SERIES)				763326	763326B
DT04-4P + W4P	4 WAY RECEPTACLE HOUSING & WEDGELOCK (DT-SERIES)				763328	763328B
DT04-6P + W6P	6 WAY RECEPTACLE HOUSING & WEDGELOCK (DT-SERIES)				763330	763330B
DT06-08S + W8S	8 WAY PLUG HOUSING & WEDGELOCK (DT-SERIES)				763333	763333B
DT06-12S + W12S	12 WAY PLUG HOUSING & WEDGELOCK (DT-SERIES)				763335	763335B
DT06-2S + W2S	2 WAY PLUG HOUSING & WEDGELOCK (DT-SERIES)				763325	763325B
DT06-3S + W3S	3 WAY PLUG HOUSING & WEDGELOCK (DT-SERIES)				763327	763327B
DT06-4S + W4S	4 WAY PLUG HOUSING & WEDGELOCK (DT-SERIES)				763329	763329B
DT06-6S + W6S	6 WAY PLUG HOUSING & WEDGELOCK (DT-SERIES)				763331	763331B
DTM04-08PA + WM-8P	8 WAY RECEPTACLE HOUSING & WEDGELOCK (DTM-SERIES)				763344	763344B
DTM04-12PA + WM-12P	12 WAY RECEPTACLE HOUSING & WEDGELOCK (DTM-SERIES)				763346	763346B
DTM04-2P + WM-2P	2 WAY RECEPTACLE HOUSING & WEDGELOCK (DTM-SERIES)				763336	763336B
DTM04-3P + WM-3P	3 WAY RECEPTACLE HOUSING & WEDGELOCK (DTM-SERIES)				763338	763338B
DTM04-4P + WM-4P	4 WAY RECEPTACLE HOUSING & WEDGELOCK (DTM-SERIES)				763340	763340B
DTM04-6P + WM-6P	6 WAY RECEPTACLE HOUSING & WEDGELOCK (DTM-SERIES)				763342	763342B
DTM06-08SA + WM-8S	8 WAY PLUG HOUSING & WEDGELOCK (DTM-SERIES)				763345	763345B
DTM06-12SA + WM-12S	12 WAY PLUG HOUSING & WEDGELOCK (DTM-SERIES)				763347	763347B
DTM06-2S + WM-2S	2 WAY PLUG HOUSING & WEDGELOCK (DTM-SERIES)				763337	763337B
DTM06-3S + WM-3S	3 WAY PLUG HOUSING & WEDGELOCK (DTM-SERIES)				763339	763339B
DTM06-4S + WM-4S	4 WAY PLUG HOUSING & WEDGELOCK (DTM-SERIES)				763341	763341B
DTM06-6S + WM-6S	6 WAY PLUG HOUSING & WEDGELOCK (DTM-SERIES)				763343	763343B
DTP04-2P + WP-2P	2 WAY RECEPTACLE HOUSING & WEDGELOCK (DTP-SERIES)				763348	763348B
DTP04-4P + WP-4P	4 WAY RECEPTACLE HOUSING & WEDGELOCK (DTP-SERIES)				763350	763350B
DTP06-2S + WP-2S	2 WAY PLUG HOUSING & WEDGELOCK (DTP-SERIES)				763349	763349B
DTP06-4S + WP-4S	4 WAY PLUG HOUSING & WEDGELOCK (DTP-SERIES)				763351	763351B
HDT-48-00	CRIMP TOOL	763300				