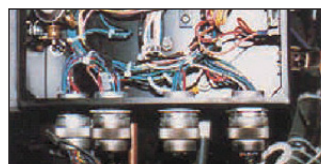


Overview: Deutsch HD30 Series and HDP20 Series

Designed specifically for the truck, bus and off-highway industry, the HDP20 Series is a heavy-duty rated, environmentally-sealed, composite shell, multi-pin connector. The plug features a quick connect/disconnect bayonet style coupling and the receptacles are designed for single panel mounting.

The HD30 Series is a heavy-duty, environmentally-sealed, multi-pin circular connector. They feature a quick connect/disconnect bayonet coupling, single hole bulkhead mounting, silicone seals, and a rear insertion/rear removal contact system. This series was developed to meet the needs of the heavy-duty equipment and transportation industries for rugged, multi-pin, sealed connector systems.



Features/Benefits HD30/HDP20 Series



HDP20 Series Shell



HD30 Series Shell



Contacts

- Sealed against moisture and contaminants, eliminating open wiring. The rear of the connector features an integral grommet wire seal that automatically seals each contact as it is locked into place during installation.
- Performs under severe shock and vibration, reducing breakdown and out-of-commission loss due to rugged operating conditions.
- Performs over a wide temperature range of -67°F to $+257^{\circ}\text{F}$ (-55°C to $+125^{\circ}\text{C}$) for continuous operation in all environments, from arctic to desert conditions.

Contacts

Simplified pin contact design limits possibility of bending. The range of contact and acceptable wire sizes are shown in the chart at the right.

Shell

The HD30 Series has a rugged, all-metal shell to withstand years of abuse. The HDP20 Series has a corrosion-resistant, all-plastic shell. Positive shell keying prevents mismatching. Both series feature a simple, 1/4-turn coupling.

Inserts

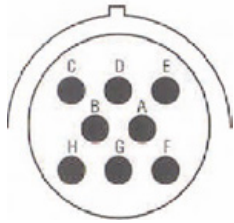
The hard plastic case insert and closed contact interface capture the contacts to prevent "float" and "spay." Redundant wire seals prevent contamination from entering the rear of connector. The sealing plug fills unused cavities to keep environmental sealing characteristics intact.

Contact Size	Acceptable Wire Sizes
#4	6 AWG
#8	8 AWG and 10 AWG
#12	12 AWG and 14 AWG
#16	14 AWG and 18 AWG
#20	20 AWG and 24 AWG

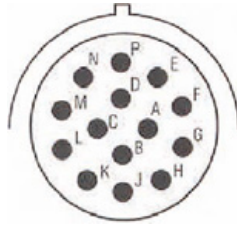
HD30 Series Insert Arrangements

All insert arrangements show socket rear insert.

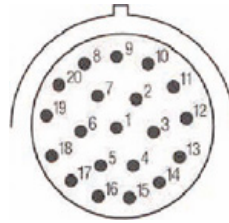
Normal Position



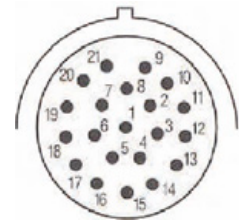
18-8*
8 size 12**



18-14
14 size 16
N, E***



18-20
2 size 16, 18 size 20
N



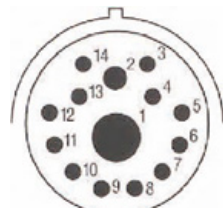
18-21
21 size 20
N

HD30 and HDP20 Series Insert Arrangements

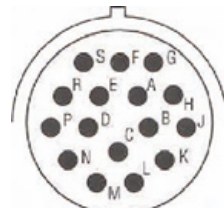
NOTE: Connectors not listed with a Lawson Item No. can be obtained by contacting our Specials Department.



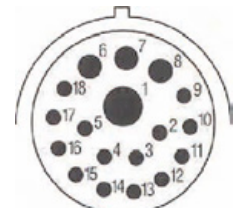
24-9
1 size 4, 2 size 8, 6 size 12
N



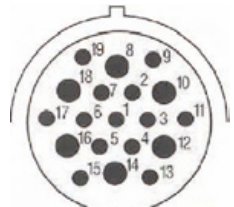
24-14
1 size 4, 1 size 12, 12 size 6
N, E



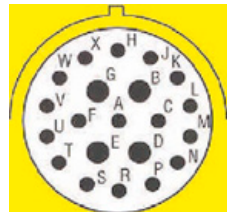
24-16
16 size 12
N, E



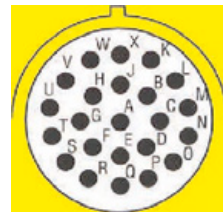
24-18
1 size 8, 3 size 12, 14 size 16
N, T, E



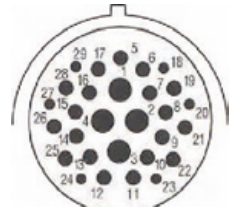
24-19
6 size 12, 13 size 16
N



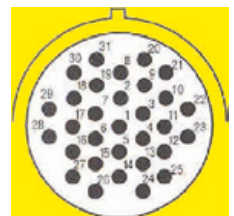
24-21
4 size 12, 17 size 16
N, E
Plug – Lawson Item No. **29460**
Receptacle – Lawson Item No. **29459**



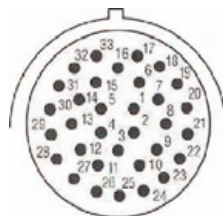
24-23
23 size 16
N, T, E
Plug – Lawson Item No. **29502**
Receptacle – Lawson Item No. **29459**



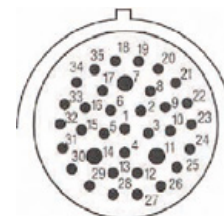
24-29
4 size 12, 19 size 16, 6 size 20
N, T, E



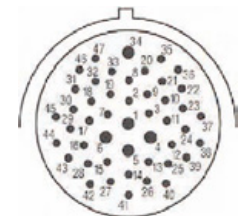
24-31
31 size 16
T, E
Plug – Lawson Item No. **29462**
Receptacle – Lawson Item No. **29461**



24-33
33 size 20
N



24-35
3 size 16, 32 size 20
N



24-47
5 size 16, 42 size 20
E

*Arrangement
 **Description
 ***Rear Seal

N = Normal position and wire seals (Green ring)
 T = Thin wall wire seals option (Grey ring)
 E = Extra thin wall wire seals (Blue ring)

Yellow box indicates featured items

Tooling HD30/HDP20 Series

A standard crimp tool may be used for fast, reliable, uniform results. A plastic removal tool prevents shocks to the user and is designed to eliminate hidden internal insert damage.



Universal
 Hand Crimp Tool
 29485

Wire Crimping



1. Strip 1/4" insulation from wire.
2. Raise selector knob and rotate until arrow is aligned with wire size to be crimped.
3. Loosen lock nut and turn adjusting screw in until it stops.



4. Insert contact and turn adjusting screw counterclockwise out until contact is flush with indenter cover. Tighten lock nut.



5. Insert wire in contact. Contact must be centered between indicators. Close handles until handle contacts stop.
6. Release handles and remove crimped contact.



7. Inspect terminal to ensure that all strands are in crimp barrel.

Contact Insertion HD30/HDP20 Series



1. Grasp contact approximately 1" behind the contact crimp barrel.

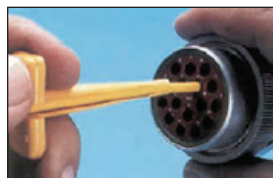


2. Hold connector with rear grommet facing you.



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

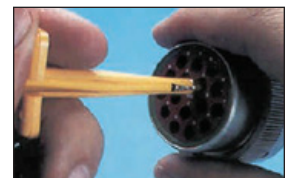
Contact Removal HD30/HDP20 Series



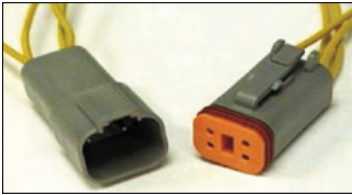
1. With rear insert toward you, snap appropriate size extractor tool over the wire of contact to be removed.



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



3. Pull contact/wire assembly out of connector.



Overview: The Deutsch DT Series

The Deutsch DT Series connectors are designed specifically for cable-to-cable applications on engines or transmissions, under the hood, on the chassis, or in the cab.

Features/Benefits DT Series

- Contrasting colored secondary locks are assembled at the mating interface
- Reduced breakdown during rugged operating conditions – excellent performance under severe shock and vibration
- Maximum current rating of 13A meets most power requirements

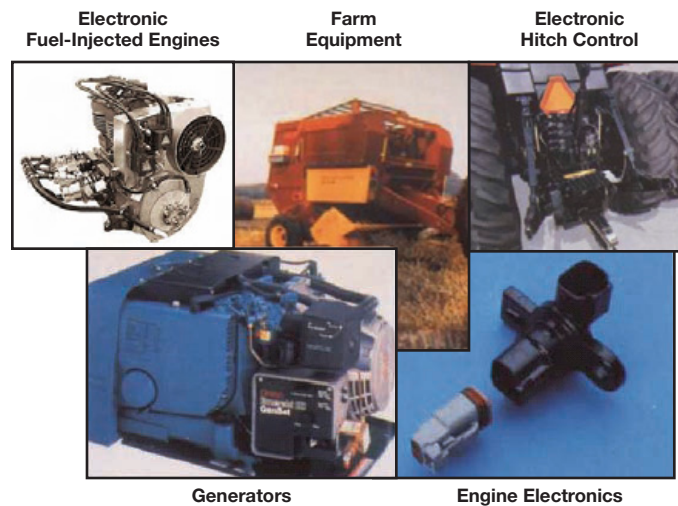
Contacts

These connectors may be employed with either solid copper crimp-style contacts for critical circuits or stamped and formed contacts. For either application, the spring action is in the socket and shrouded by a stainless steel hood that provides closed entry for positive axial alignment during mating, and eliminates probe damage from occurring. The DT Series accepts wire sizes 18 AWG through 14 AWG. This series accepts contacts that are designed for 14 AWG to 16 AWG and 16 AWG to 20 AWG wire sizes.

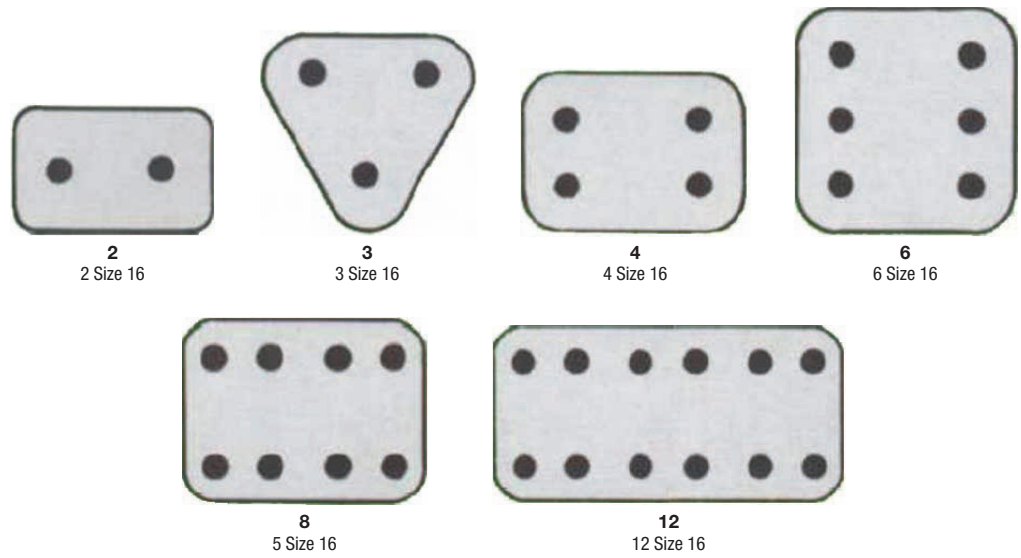
Shell

Rugged thermoplastic housing, rated at -67°F to $+257^{\circ}\text{F}$ (-55°C to $+125^{\circ}\text{C}$), and silicone seals are used to allow the connector to withstand conditions of extreme temperature and moisture.

Applications DT Series



**Contact Arrangements
DT Series**



DT Series – Plugs and Receptacles

No. of Pins/ Sockets	Plug Item No.	Pkg. Qty.	Receptacle Item No.	Pkg. Qty.
2	29490	5	29489	5
3	29492	5	29491	5
4	29494	2	29493	2
6	29495	2	29496	2
8	29498	2	29497	2
12	29499	1	29500	1

DT Series – Wedgelocks

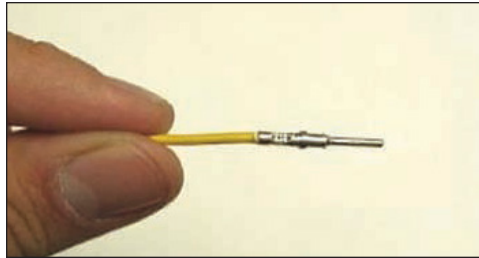
No. of Pins/ Sockets	Plug Item No.	Pkg. Qty.	Receptacle Item No.	Pkg. Qty.
2	29479	10	29473	10
3	29480	10	29474	10
4	29481	10	29475	10
6	29482	10	29476	10
8	29483	10	29477	10
12	29484	10	29478	10

**Tooling
DT Series**

Contact insertion requires no special tools. Contacts are retained in locked position by dielectric fingers, molded as an integral part of the housing. Removing contacts is easy with the DT Series Removal Tool.



Contact Insertion DT Series



1. Grasp contact approximately 1" behind the contact crimp barrel.



2. Hold connector with rear grommet facing you.
NOTE: The receptacle is shown, use the same procedure for plug.



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

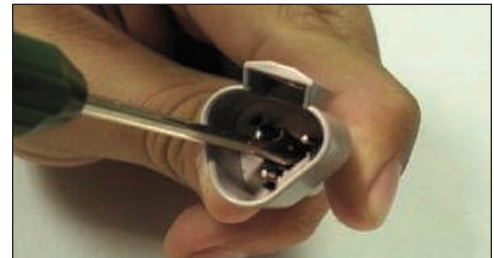


4. Once all contacts are in place, insert green wedge with arrow pointing toward exterior locking mechanism. The green wedge will snap into place. Rectangular wedges are not oriented. They may go in either way.

Contact Removal DT Series



1. Remove green wedge using needle-nose pliers or a hook-shaped wire to pull wedge straight out.



2. To remove the contacts, gently pull wire backwards, while releasing the locking finger by moving it away from the contact with the contact removal tool. If contact removal tool is not available, a screwdriver will also work.



3. Hold the rear seal in place to prevent displacing the seal.