



## ITT Cannon HDx™ Series

### High-Density, Ultra-Reliable Small Form Factor Interconnect Solution



ITT Cannon's HDx™ Series offers a reliable, small form factor (SFF) solution in a lightweight, compact design. With breakaway or screw-lock breakaway coupling options, this high density interconnect enable critical USB, HDMI or Ethernet high speed data transmission.



Cannon's HDx Series comes in an anti-glare, non-reflective Ruthenium plating and is rated up to 20 meter sealing depth when mated. This combined with its high durability rating, provide end users with a dependable interconnect system in any mission critical situation.

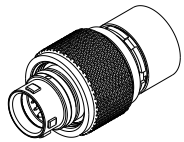
#### Features & Benefits

- Lightweight, compact design
- Ultra-high density layouts
- Support signal & power
- Support high speed data
  - USB® 3.1 Gen1 up to 5Gbit/s
  - Ethernet up to 10Gbit/s
  - HDMI® up to 8.16 Gbit/s
- Watertight to 20 meter depth
- High-durability - +5000 mating cycles
- Anti-glare, non-reflective plating
- Break-Away or Threaded Locking Options

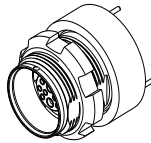
## Specifications

<b>Mechanical Shock</b>	No electrical discontinuity > 1μs from 50g Amplitude, 1/2 sine shock pulse of 6ms MIL-STD-810G Method 516.5 Procedure I, Figure 516.7-12 / EIA-364-27C	
<b>Sinusoidal Vibration</b>	10-2,000Hz, 15g, No electrical discontinuity > 1μs Sine Profile: EIA-364-28F Condition IV / MIL-STD-202, Method 204, Condition G	
<b>Reflectance</b>	Exposed Portions of connectors shall not expose shiny, reflective surfaces	
<b>Color</b>	Exposed portions of connector shall be dark gray	
<b>Chemical Safety</b>	Materials shall not create a toxic health hazard	
<b>Durability @ Ambient Temperature</b>	5000 Mating Cycles	
<b>Wire Accommodation</b>	#22 - #28 AWG, Layout dependent: Ø0.3mm Solder Contacts: 28 AWG and Ø0.7mm Solder Contacts: 22 AWG"	
<b>Intermateability</b>	Tested to Intermate with competitor Plugs and Receptacles	
<b>Current Rating (MIL-STD-810G)</b>	Ø0.3mm Contacts: 1 Amp Max (Single Contact)	Ø0.7mm Contacts: 5 Amps (Single Contact)
<b>Operational Voltage</b>	250VDC	
<b>DWV, At Sea Level</b>	Leakage less than 2mA @ 1000 VDC. No Flashover	
<b>Insulation Resistance @ Ambient Temp</b>	> 100 MΩ, tested at 500 VDC +/- 10% @ 1 Amp	
<b>Low Level Contact Resistance (Mated, unwired contacts only)</b>	Ø0.3mm <5 mOhm	Ø0.7mm <4 mOhm
<b>Shell to Shell Conductivity</b>	<5 mOhms	
<b>Operating Temperature</b>	-51°C to +125°C	
<b>Salt Spray, Static / Corrosion Resistance</b>	Connector shall operate in and when stored in a salt fog atmosphere without protective covers - 96 Hours Unmated. (EIA-364-26, Condition A / MIL-STD-810G Method 509.5)	
<b>Water Immersion-Mated</b>	20 meters / 28.5 psi for 120 minutes (Mil-STD-810G Method 512.5 Procedure 1 / 20 meter profile, IPX8)	

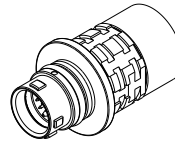
# Ordering Guide



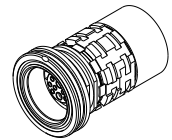
In-Line Breakaway  
Plug with Locknut - C1



Rear Panel Mount  
Receptacle - GK



In-Line Breakaway  
Plug - A1



In-Line Breakaway  
Receptacle - K1

1- Product	2- Series	3- Type	4- Shell Style	5- Material	6- Arrangement	7- Contact Style	8- Contact Diameter	9- Polarization	10- Earth Tag	11- Mod Codes
HDX -	W	A	1	M	0-09	X	M	A		

1 - Product	
HDX	High Density Small Form Factor
2 - Series	
W -	High Density
3- Type	
G -	Receptacle, Panel Mount
K -	In-Line Receptacle
A -	Break-Away Plug
C -	Plug with Locknut

4 - Shell Style	
1 -	In-Line
K -	Rear Panel Mount, Low Profile Inside Device
5 - Material and Finish	
M -	Brass Alloy / Ruthenium over Electroless Ni (Series W)
6- Arrangement (See Table Below)	
0-09, 0-12, 0-16	
7 - Contact Style	
W -	Socket, Solder Cup (Receptacle Only)
X -	Pin, Solder Cup (Plug Only)
U -	Socket, PC-Tail (Receptacle Only)

8 - Contact Diameter	
B -	0.3mm
F -	0.7mm
M -	Combo / Mixed
9- Shell Polarization	
A -	Brown Color Code
B -	Red Color Code
C -	Blue Color Code
D -	Green Color Code
10- Receptacle Earth Tag	
L -	Applicable to GC, GK and G8 ONLY
OMIT -	All other styles and types
11- MOD Codes	
Leave Blank if None	

Contact Specification							
Layout		Contact Count	Contact Diameter (mm)	Wire Size (AWG)	Max Current	Voltage (VDC)	Application
0-09		3	0.3	28 AWG	1A	250	USB 2.0 + Power
		6	0.7	22 AWG	5A		
0-12		10	0.3	28 AWG	1A	250	USB 3.2 Gen 1 + Power
		2	0.7	22 AWG	5A		
0-16		16	0.3	28 AWG	1A	250	Signal

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