

cannon

Medical Product Selection Guide



ITT

We Connect

The future of medical solutions

For more than a century, ITT has developed innovative connector solutions for the world's most critical applications. With facilities in the United States, Germany, Italy, Mexico, China and Japan, each with its unique strengths, we offer our customers interconnect solutions that are truly engineered for life.

In addition to this global footprint, we offer highly specialized medical industry expertise. With half a century of global presence in the medical industry, we are a committed and proven partner to medical equipment manufacturers, bringing connector solutions to the market that enable our customers to deliver medical breakthroughs today and tomorrow.

Global interconnect solutions for today's medical markets

The ITT Cannon difference

Global capabilities & local support

Over three decades of proven medical application expertise

A century of interconnect leadership

A committed innovator & business partner

About ITT

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life. Founded in 1920, ITT is headquartered in White Plains, N.Y., with employees in more than 35 countries and sales in a total of approximately 125 countries. For more information, visit www.itt.com.

The Cannon logo consists of the word "cannon" in a lowercase, sans-serif font. The letter "o" is replaced by a stylized icon of a three-pronged electrical plug.

We Connect

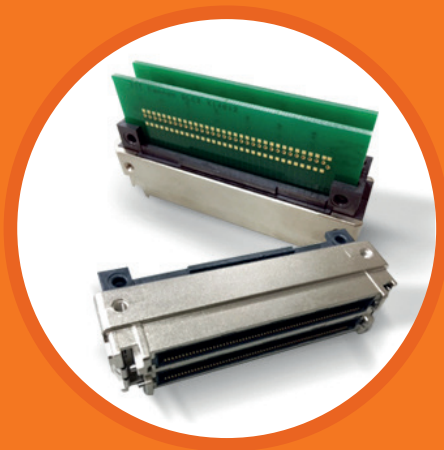
The future of medical solutions

Our engineers have developed both standard and custom interconnect solutions for the full breadth of medical applications. From ultrasound to patient monitoring and diagnostics, our teams have the capabilities, experience and reach to deliver the solution you need.

Whether showing a cancer survivor a clean scan or giving new parents the first glimpse of their unborn child, ITT Cannon helps you connect the world's most important information with those who need it most.

Solving your most critical challenges

With decades of experience and a trusted partner to the global medical market, we can deliver fully customized solutions for your most critical applications.



QLC Series



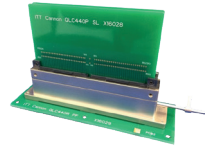
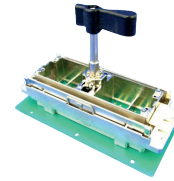
PL Push-Pull Series



Customized Cable Assemblies

Fully Proven | Highly Innovative | Ultra Reliable

STANDARD PRODUCTS



	DL	DLM	DLP 136 - 272	DLP 408	QLC Series
GENERAL	Primary Application	Ultrasonic	Ultrasonic	Ultrasonic	Ultrasonic
	Secondary Applications	Test & Measurement	Test & Measurement	Test & Measurement	Test & Measurement
	Number of Circuits	60, 96, 156 and 260 ways	60, 96, 156, 260 and 360 ways	136, 204 and 272 ways	408 ways
ELECTRICAL	Max Operating Voltage	AC300V rms	AC250V rms	AC200V rms	AC300Vp-p
	Dielectric Withstanding Voltage (at sea level)	AC1200Vrms	AC1000Vrms	AC500V rms	AC500V rms
	Max Current Rating @40C (MAX)	5A (Dependent on contact type)	5A (Dependent on contact type)	0.5A	0.3 A / 1.0A (Dependent on circuit)
	EMI / RFI Shielding	No	Yes	Yes	Yes
MECHANICAL	Wire Gauge Range AWG	AWG 18-40	AWG 18-40	N/A	N/A
	Power and Signal layouts	60, 96, 156 and 260 ways	60, 96, 156, 260 and 360 ways	136, 204 and 272 ways	408 ways
	Mating cycles (min)	10000	10000	10000	10000
	Type of Coupling	Rotating Shaft	Rotating Shaft	Rotating Shaft	Rotating Shaft
	Mechanical Coding	Yes	Yes	Yes	Yes
ENVIRONMENTAL SEALING (MATING)	Environmental Sealing (mating)	N/A	N/A	N/A	N/A
	Operating Temperature	-55°C to 105°C	-55°C to 105°C	-55°C to 85°C	-55°C to 85°C
	Shock Test (g's)	50 g's	50 g's	50 g's	50 g's
	Max Vibration Resistance	10-2000Hz, 1.52mm (Dependent on connector type)	10-2000Hz, 1.52mm (Dependent on connector type)	10-55Hz, 1.52mm	10-55Hz, 1.52mm
	Shell Material	Thermoplastic	Aluminum	Aluminum	Zinc Alloy
CONTACTS	Contact plating	Gold	Gold	Gold	Gold
	Crimp machined	No	No	No	No
	Crimp stamped	Yes	Yes	No	No
	Solder	Yes	Yes	Yes	Press-Fit for REC
	Coax	No	No	No	No
	Fiber Optic	No	No	No	No
	First-make-last-break	No	No	No	No



	QLC Solderless Plug	QLC PRESS FIT Receptacle	PL Push-Pull	Universal Contact	D-Sub	
GENERAL	Primary Application	Ultrasonic	Ultrasonic	Medical device	Handheld devices	Ultrasonic
	Secondary Applications	Test & Measurement	Test & Measurement	Test & Measurement	Healthcare Wearable	Test & Measurement
	Number of Circuits	260 and 440 ways	260 and 440 ways	2 to 14 ways	Single or in custom module	2 to 104 ways
ELECTRICAL	Max Operating Voltage	AC100V	AC100V	DC0.3 to 0.6 kV	N/A (Dependent on DWV)	Up to 250 VDC
	Dielectric Withstanding Voltage (at sea level)	AC1000v rms	AC1000v rms	0.6 to 1.2 kV rms	N/A (Dependent on PCB layout)	1250 VAC
	Max Current Rating @40C (MAX)	0.5A	0.5A	2 to 10A	1.5A (Dependent on type)	7.5A for Signal; Up to 65 A for Power
	EMI / RFI Shielding	Yes	Yes	No	N/A	Yes / No (Dependent on Shell Style)
MECHANICAL	Wire Gauge Range AWG	N/A	N/A	AWG 20-28	1.3mm to 4.5mm free height	AWG 30-8
	Power and Signal layouts	260 and 440 ways	260 and 440 ways	2 to 14 ways	single or in custom module	Yes (Combo-D)
	Mating cycles (min)	20000	20000	2000	3000	50
	Type of Coupling	Rotating Latch	Rotating Latch	Push-Pull	N/A	None (Require Locking/ Coupling Hardware)
ENVIRONMENTAL SEALING (MATING)	Mechanical Coding	Yes	Yes (With flange version)	Yes	Pre-load contact	Yes on Customs/Specials Only
	Environmental Sealing (mating)	N/A	N/A	IP50	N/A	Up to IP67 (Grommet-D & Environmental-D)
	Operating Temperature	-55°C to 85°C	-55°C to 85°C	-50°C to 150°C	-40°C to 85°C	-55°C - +125°C (+175°C For Specials)
	Shock Test (g's)	50 g's	50 g's	50 g's	IEC 68-2-27, 100 g's	Dependent on product sub-family
	Max Vibration Resistance	10-55Hz, 1.52mm	10-55Hz, 1.52mm	10-2000Hz, 1.52mm	IEC 68-2-36	Dependent on product sub-family
	Shell Material	Zinc Alloy	Zinc Alloy	Plastic	N/A (Custom type has plastic HSG)	Steel, Copper Alloy, Aluminum & Stainless Steel
CONTACTS	Contact plating	Gold	Gold	Gold	Gold	Gold (silver for HEP) engaging end / gold or tin (silver for HEP) termination end
	Crimp machined	N/A	N/A	Optional	No	Yes
	Crimp stamped	N/A	N/A	Optional	No	Yes
	Solder	No	Press-fit	Yes	No	Yes
	Coax	No	No	No	No	Yes
	Fiber Optic	No	No	No	No	Yes
	First-make-last-break	No	No	Optional	Yes	No



CUSTOM PRODUCTS



		All-in-one Medical combo	Pogo Pin	Stackable	Plastic non-magnetic CIR push-pull	DL Cable Assembly
GENERAL	Primary Application	Handheld Devices	Portable X-ray	Hi-end Wheelchair	MRI	Ultrasonic
	Secondary Applications	Healthcare Wearable	Endoscope	X-ray	Endoscope	Test & Measurement
	Number of Circuits	Single or in custom module	19 to 50 ways	7 to 15 ways	Custom	Custom
ELECTRICAL	Max Operating Voltage	N/A (Dependent on DW V)	300V	500V	300V	AC250V rms / 300V rms
	Dielectric Withstanding Voltage (at sea level)	N/A (Dependent on PCB layout)	500V	300V	500V	AC1000V rms
	Max Current Rating @40C (MAX)	1.5A (Dependent on type)	1A	15A	5A	5A Max
	EMI / RFI Shielding	N/A	Yes	N/A	Yes	Yes
MECHANICAL	Wire Gauge Range AWG	1.3mm to 4.5mm free height	AWG 22-24	AWG 16-24	AWG 22	AWG 28-42
	Power and Signal layouts	Yes	Signal only	Yes	Yes	Yes
	Mating cycles (min)	3000	10000	1000	5000	10000
	Type of Coupling	N/A	Breakaway Pogo	Holding Clips	Push-Pull	Rotating Latch
	Mechanical Coding	Pre-load contact	Yes	Yes	Yes	Yes
ENVIRONMENTAL SEALING (MATING)	Environmental Sealing (mating)	N/A	IP55	IP67	IP55	N/A
	Operating Temperature	-40°C to 85°C	-20°C to 70°C	-20°C to 70°C	-15°C to 30°C	-55°C to 85°C
	Shock Test (g's)	IEC 68-2-27, 100 g's	20 g's	20 g's	20 g's	50 g's
	Max Vibration Resistance	IEC 68-2-36	9 to 200HZ, 0.5g's	9 to 200HZ, 0.5g's	9 to 200HZ, 0.5g's	10 to 55Hz, 1.52g's
	Shell Material	N/A (Custom type has plastic HSG)	Thermoplastic	Thermoplastic	White Plastic Later 4G/30-VO	Aluminum Alloy
CONTACTS	Contact plating	Gold	Gold	Gold	Gold	Gold
	Crimp machined	No	Yes	Yes	Yes	No
	Crimp stamped	No	No	Yes	No	Yes
	Solder	No	Yes	Yes	Yes	Yes
	Coax	No	Yes	No	Yes	Yes
	Fiber Optic	No	No	No	Yes	Yes
	First-make-last-break	Yes	Yes	No	Yes	No

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Amazing things
happen when great
things connect



Connect with your ITT Cannon representative today
or visit us at www.ittcannon.com

Connect with the experts

ITT Cannon is a world leader in the design and manufacture of highly engineered solutions for global medical markets.



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