

# MIL-DTL 83513



## MIL-DTL 83513 Series Connector

With a proven history of engineering and manufacturing excellence spanning over 90 years, ITT has delivered a broad range of innovative product solutions that have and continue to enable our customers to meet their most demanding design requirements. ITT's design centers provide time proven high quality products and exceptional service to customers through a global network of field application engineers, sales force and manufacturing facilities.

The M83513 series is designed to meet applications requiring reliable, extremely small and lightweight form factors. This high density rectangular form factor meets the increasing demand for environmentally safe, rugged and moisture-sealed microminiature connectors.



## Innovative Interconnect Benefits

- Multiple shells options available in aluminum and thermoplastic
- Available with wired "pig-tail", solder cup, right angle, condensed right angle and straight PC-tail
- MIL-DTL-83513 and MDM series Micro-D connectors use high performance twist pin contact technology
- Available in high temperature (200°C) and non-magnetic versions

## Product Features

- 0.050" center to center contact spacing
- Hermetic, filtered and connector saver options available
- MDM available in sealed, combo, coax and power contact arrangements
- Push-Pull hardware option requires no torque, reducing misalignment and rocking

## Applications

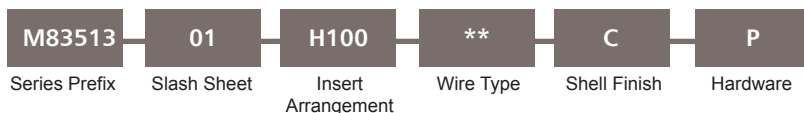
- Military Vehicles
- Down Hole Equipment
- Biomedical Electronics
- Unmanned Vehicles
- Aerospace Launch Vehicles
- Instrumentation



# M83513 Selection Guide

<b>Max. Voltage</b>	<b>Max. Current</b>	<b>Operating Temp</b>	<b>Durability</b>
600 VAC rms Sea Level	3.0 Amps	-55 to +125 degrees C	500 mating cycles

M83513 Product Line Talking Dog



Series	Wired/Solder	PCB
Slash Sheet	01 - Plug, connector, solderpot (metal shell)	10 - Connector, plug, condensed board right angle (CBR), sizes 9-37
	02 - Receptacle, connector, solderpot (metal shell)	11 - Connector, plug, CBR, size 51
	03 - Plug, connector, crimp type (metal shell)	12 - Connector, plug, CBR, size 100
	04 - Receptacle, connector, crimp type (metal shell)	13 - Connector, receptacle, CBR, sizes 9-37
	05 - Hardware only <sup>5</sup>	14 - Connector, receptacle, CBR, size 51
	06 - Plug connector, solderpot (plastic) <sup>3</sup>	15 - Connector, receptacle, CBR, size 100
	07 - Receptacle, connector, solderpot (plastic) <sup>3</sup>	16 - Connector, plug, board right angle (BR), sizes 9-37
	08 - Plug, connector, crimp type (plastic) <sup>3</sup>	17 - Connector, plug, BR, size 51
	09 - Receptacle, connector, crimp type (plastic) <sup>3</sup>	18 - Connector, plug, BR, size 100
		19 - Connector, receptacle, BR, sizes 9-37
		20 - Connector, receptacle, BR Size 51
		21 - Connector, receptacle, BR Size 100
		22 - Connector, plug, board straight (BS), Sizes 9-37
		23 - Connector, plug, BS, Size 51
		24 - Connector, plug, BS, Size 100
		25 - Connector, receptacle, BS, Size 9-37
	26 - Connector, receptacle, BS, Size 51	
	27 - Connector, receptacle, BS Size 100	
Insert Arrangement	A - 9 Contact	A - 9 Contact (metal shell)
	B - 15 Contact	B - 15 Contact (metal shell)
	C - 21 Contact	C - 21 Contact (metal shell)
	D - 25 Contact	D - 25 Contact (metal shell)
	E - 31 Contact	E - 31 Contact (metal shell)
	F - 37 Contact	F - 37 Contact (metal shell)
	G - 51 Contact	G - 51 Contact (metal shell)
	H - 100 Contact <sup>5</sup>	H - 100 Contact (metal shell)
Wire Type	No Number - For solderpot	No Number - For solderpot
	01 - 18" long, #26 AWG per SAE-AS22759/11-26-9 (all white)	01 - .109" long, #24 AWG solid cooper wire per A-A-59551-343, Type "S", solder dipped <sup>6</sup>
	02 - 36" long, #26 AWG per SAE-AS22759/11-26-9 (all white)	02 - .140" long, #24 AWG solid copper wire per A-A-59551-343, Type "S", solder dipped <sup>6</sup>
	03 - 18" long, #26 AWG per SAE-AS22759/11-26 color coded per MIL-STD-681, system 1, 10 colors repeating <sup>4</sup>	03 - .172" long, #24 AWG solid copper wire per A-A-59551-343, Type "S", solder dipped <sup>6</sup>
	04 - 26" long, #26 AWG per SAE-AS22759/11-26 color coded per MIL-STD-681, system 1, 10 colors repeating <sup>4</sup>	
	05 - .5" long, #25 AWG, type S per A-A-59551-343, Gold Plated	
	06 - 1.0" long, #25 AWG, type S per A-A-59551-343, Gold Plated	
	07 - .5" long, #25 AWG, type S per A-A-59551-343, Tin Plated	
	08 - 1.0" long, #25 AWG, type S per A-A-59551-343, Tin Plated	
	09 - 18" long, #26 AWG per SAE-AS22759/33-26-9 (all white) <sup>2</sup>	
	10 - 36" long, #26 AWG per SAE-AS22759/33-26-9 (all white) <sup>2</sup>	
	11 - 18" long, #26 AWG per SAE-AS22759/33-26 color coded per MIL-STD-681, system 1, 10 colors repeating <sup>2, 4</sup>	
	12 - 36" long, #26 long #AWG per ASAE-AS2759/33-26 color coded per MIL-STD 681, system 1, 10 colors repeating <sup>2, 4</sup>	
	13 - 72" long, #26 AWG per SAE-AS22759/11-26-9 (all white)	
	14 - 72" long, #26 AWG per SAE-AS22759/11-26 color coded per MIL-STD-681, system 1, 10 colors repeating <sup>4</sup>	
	15 - 72" long, #26 AWG per SAE-AS22759/33-26-9 (all white) <sup>2</sup>	
16 - 72" long, #26 AWG per SAE-AS22759/33-26 color coded per MIL-STD-681, system 1, 10 colors repeating <sup>2, 4</sup>		
Shell Finish	No Number - for plastic type connector	C - Cadmium
	C - Cadmium	N - Electroless nickel <sup>2</sup>
	N - Electroless nickel	
Hardware		N - No jackpost
		P - Jackpost (permanently attached)
		T - Threaded insert

1 - Tolerance on wire lengths: 18", 36" and 72" long - +1.00"/-0.00. 2 - For space applications, connector shell finish must be "A174" and wire must be per SAE-AS22759/33-26. 3 - Size 100 not available in /06 through /09 (Plastic Shells). 4 - Color coding in accordance with MIL-STD-681, system 1. 5 - For mounting hardware to Military Specifications (sizes 9 to 100). 6 - Tolerance on termination ± .015

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## ITT Corporation

Americas:  
Fredrik Thorell  
714.628.2276  
fredrik.thorell@ittcorp.com

Europe:  
Nick Lewis  
44.1256.311993  
nick.lewis@ittcorp.com

Asia:  
Sam Chow  
852.258.95831  
sam.chow@ittcorp.com

Japan:  
Takashi Goto  
81.46.257.2012  
takashi.goto@ittcorp.com