

RoHS
Ready 



M8 / M12 Connector System

Introduction



The M8 / M12 system continues to fill the ongoing needs for sensor connection in Industrial Machinery and Factory Automation. A connection standard for many years, these products also find application outside of their traditional industries where a compact reliable connection system with environmental protection is required. The Tyco Electronics range of M8 / M12 connector products comprises the most

popular variants of this family to allow versatile systems to be quickly and easily established.

Single end terminated cable assemblies utilise overmoulded construction with a choice of PVC or PUR cables in 2 to 10 metre lengths. Within the M12 range additional options include screening and LED indication. Panel mount products are offered with a choice of solder cup or pcb termination.

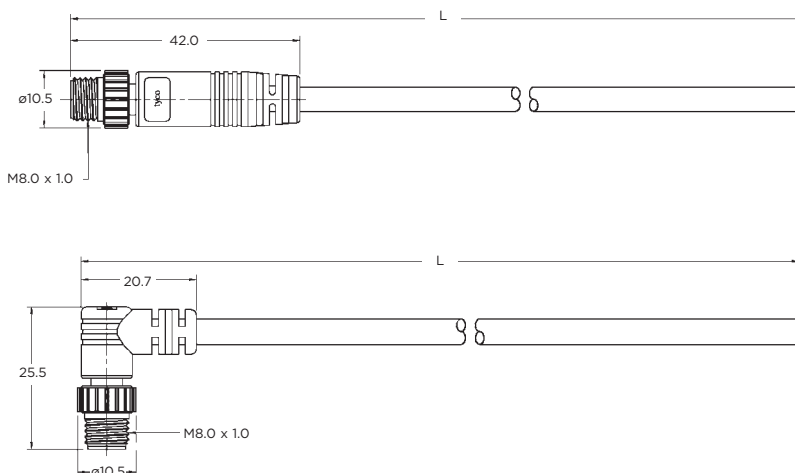
For rewiring on site a range of field serviceable connectors are provided, while Y adaptors facilitate simple splitting of control signals.

Additional styles are available on request including B & D coded M12 products, alternative mounting arrangements for panel mount connectors and double ended cable assemblies.

	M8	M12
Housing	PUR / GF Nylon UL94 HB	PUR / GF Nylon UL94 HB
Overmoulding	PUR, black	PUR, black
Contact Material	Brass, gold plated	Brass, gold plated
Cable - PVC	22 AWG black jacketed	3-5 pos 22 AWG black jacketed 8 pos 24 AWG black jacketed
Cable - PUR	22 AWG black jacketed	3-5 pos 22 AWG black jacketed 8 pos 24 AWG black jacketed
Current Rating	5A	3-5 pos 5A, 8 pos 2A
Operating Voltage	3 pos 60Vac/dc 4 pos 30Vac/dc	3-4 pos 250Vac/dc 5 pos 60Vac/dc 8 pos 30Vac/dc
Insulation Resistance	100MΩ min @ 500Vdc	100MΩ min @ 500Vdc
Dielectric Strength	500Vac min 1 minute	500Vac min 1 minute
Contact Resistance	10mΩ max	10mΩ max
Protection Class		
- Cable Assemblies	IP67	IP67
- Panel Mount Products	IP67	IP67
- Field Serviceable Products	—	IP68
- Y Adaptors	—	IP67
Operating Temperature Range	-25 to +90°C*	-25 to +90°C*
Product Specification	108-3641	108-3641

* -20 to +80°C with PVC cable

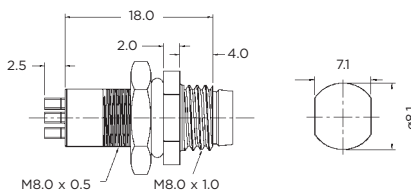
M8 Male Connectors, Single End Terminated



No. OF POLES & CONTACT CONFIGURATION (Connection side view)			
3		4	
COLOUR IDENTIFICATION			
1 = Brown, 2 = White, 3 = Blue, 4 = Black			

Positions	Cable	Length (L) Metres	Part Number	
			Straight	Right Angle
3	PVC	2	1838286-1	1838290-1
3	PVC	3	1838286-2	1838290-2
3	PVC	5	1838286-3	1838290-3
3	PVC	7	1838286-4	1838290-4
3	PVC	10	1838286-5	1838290-5
3	PUR	2	1838287-1	1838291-1
3	PUR	3	1838287-2	1838291-2
3	PUR	5	1838287-3	1838291-3
3	PUR	7	1838287-4	1838291-4
3	PUR	10	1838287-5	1838291-5
4	PVC	2	1838288-1	1838292-1
4	PVC	3	1838288-2	1838292-2
4	PVC	5	1838288-3	1838292-3
4	PVC	7	1838288-4	1838292-4
4	PVC	10	1838288-5	1838292-5
4	PUR	2	1838289-1	1838293-1
4	PUR	3	1838289-2	1838293-2
4	PUR	5	1838289-3	1838293-3
4	PUR	7	1838289-4	1838293-4
4	PUR	10	1838289-5	1838293-5

M8 Male Panel Mount Connectors

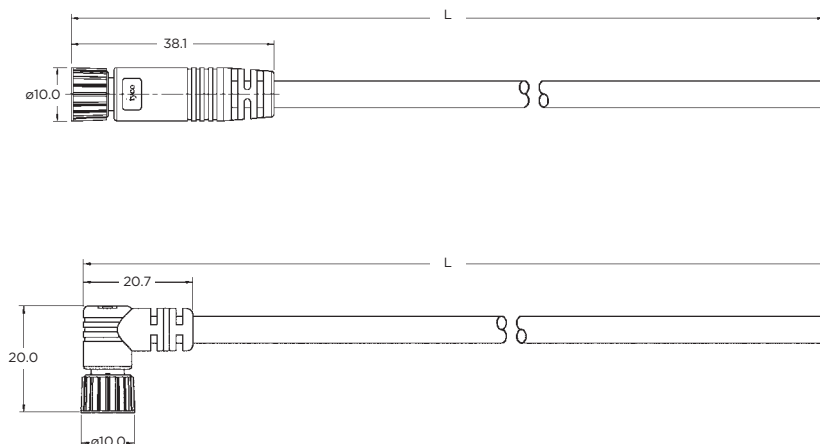


Solder Terminals Rear Mount Double D Cutout, Hexagonal Front Flange

No. OF POLES & CONTACT CONFIGURATION (Connection side view)			
3		4	

Positions	Part Number
3	1838838-1
4	1838838-2

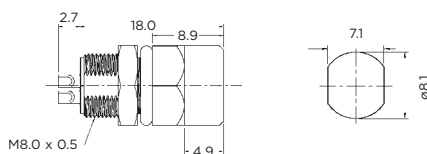
M8 Female Connectors, Single End Terminated



No. OF POLES & CONTACT CONFIGURATION (Connection side view)	
3	4
1 2 3	1 2 3 4
COLOUR IDENTIFICATION	
1 = Brown, 2 = White, 3 = Blue, 4 = Black	

Positions	Cable	Length (L) Metres	Part Number	
			Straight	Right Angle
3	PVC	2	1838282-1	1838296-1
3	PVC	3	1838282-2	1838296-2
3	PVC	5	1838282-3	1838296-3
3	PVC	7	1838282-4	1838296-4
3	PVC	10	1838282-5	1838296-5
3	PUR	2	1838283-1	1838297-1
3	PUR	3	1838283-2	1838297-2
3	PUR	5	1838283-3	1838297-3
3	PUR	7	1838283-4	1838297-4
3	PUR	10	1838283-5	1838297-5
4	PVC	2	1838284-1	1838298-1
4	PVC	3	1838284-2	1838298-2
4	PVC	5	1838284-3	1838298-3
4	PVC	7	1838284-4	1838298-4
4	PVC	10	1838284-5	1838298-5
4	PUR	2	1838285-1	1838299-1
4	PUR	3	1838285-2	1838299-2
4	PUR	5	1838285-3	1838299-3
4	PUR	7	1838285-4	1838299-4
4	PUR	10	1838285-5	1838299-5

M8 Female Panel Mount Connectors

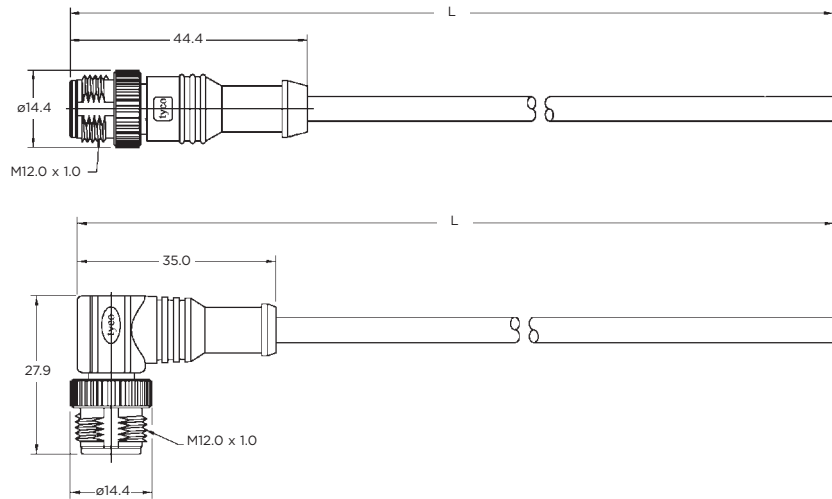


Solder Terminals Rear Mount Double D Cutout, Hexagonal Front Flange

No. OF POLES & CONTACT CONFIGURATION (Connection side view)	
3	4
1 2 3	1 2 3 4

Positions	Part Number
3	1838839-1
4	1838839-2

M12 Male Connectors, Single End Terminated



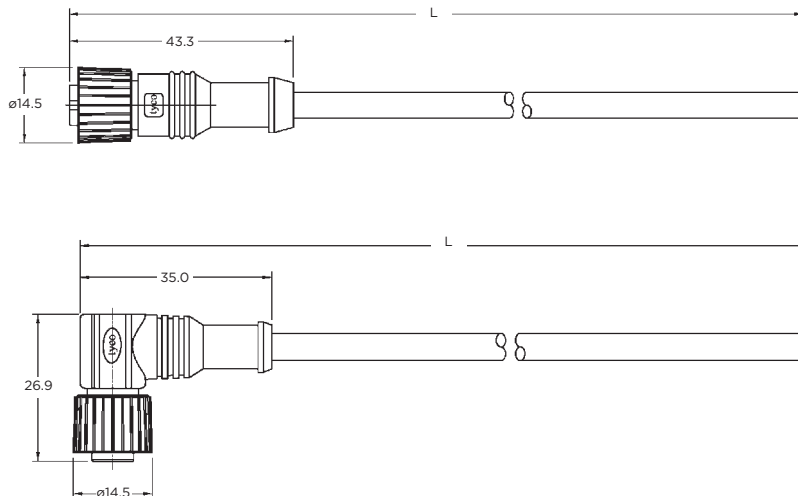
No. OF POLES & CONTACT CONFIGURATION (Connection side view)		
3	4	5
		
COLOUR IDENTIFICATION		
1 = Brown, 2 = White, 3 = Blue, 4 = Black, 5 = Green		

8

COLOUR IDENTIFICATION
1 = Brown, 2 = Red, 3 = Orange, 4 = Yellow, 5 = Green, 6 = Blue, 7 = Purple, 8 = Grey

Positions	Cable	Length (L) Metres	Part Number	
			Straight	Right Angle
3	PVC	2	1838236-1	1838248-1
3	PVC	3	1838236-2	1838248-2
3	PVC	5	1838236-3	1838248-3
3	PVC	7	1838236-4	1838248-4
3	PVC	10	1838236-5	1838248-5
3	PUR	2	1838237-1	1838249-1
3	PUR	3	1838237-2	1838249-2
3	PUR	5	1838237-3	1838249-3
3	PUR	7	1838237-4	1838249-4
3	PUR	10	1838237-5	1838249-5
4	PVC	2	1838238-1	1838250-1
4	PVC	3	1838238-2	1838250-2
4	PVC	5	1838238-3	1838250-3
4	PVC	7	1838238-4	1838250-4
4	PVC	10	1838238-5	1838250-5
4	PUR	2	1838239-1	1838251-1
4	PUR	3	1838239-2	1838251-2
4	PUR	5	1838239-3	1838251-3
4	PUR	7	1838239-4	1838251-4
4	PUR	10	1838239-5	1838251-5
5	PVC	2	1838240-1	1838252-1
5	PVC	3	1838240-2	1838252-2
5	PVC	5	1838240-3	1838252-3
5	PVC	7	1838240-4	1838252-4
5	PVC	10	1838240-5	1838252-5
5	PUR	2	1838241-1	1838253-1
5	PUR	3	1838241-2	1838253-2
5	PUR	5	1838241-3	1838253-3
5	PUR	7	1838241-4	1838253-4
5	PUR	10	1838241-5	1838253-5
8	PVC	2	1838353-1	1838401-1
8	PVC	3	1838353-2	1838401-2
8	PVC	5	1838353-3	1838401-3
8	PVC	7	1838353-4	1838401-4
8	PVC	10	1838353-5	1838401-5
8	PUR	2	1838354-1	1838402-1
8	PUR	3	1838354-2	1838402-2
8	PUR	5	1838354-3	1838402-3
8	PUR	7	1838354-4	1838402-4
8	PUR	10	1838354-5	1838402-5

M12 Female Connectors, Single End Terminated



No. OF POLES & CONTACT CONFIGURATION (Connection side view)		
3	4	5
		
COLOUR IDENTIFICATION		
1 = Brown, 2 = White, 3 = Blue, 4 = Black, 5 = Green		

8

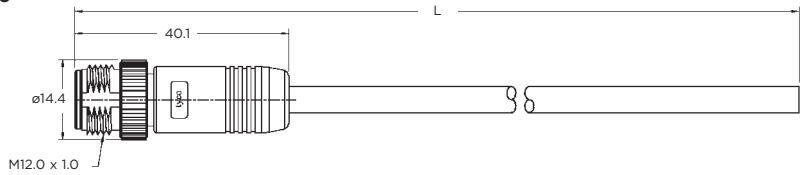
COLOUR IDENTIFICATION
1 = Brown, 2 = Red, 3 = Orange, 4 = Yellow, 5 = Green, 6 = Blue, 7 = Purple, 8 = Grey

Positions	Cable	Length (L) Metres	Part Number	
			Straight	Right Angle
3	PVC	2	1838242-1	1838254-1
3	PVC	3	1838242-2	1838254-2
3	PVC	5	1838242-3	1838254-3
3	PVC	7	1838242-4	1838254-4
3	PVC	10	1838242-5	1838254-5
3	PUR	2	1838243-1	1838255-1
3	PUR	3	1838243-2	1838255-2
3	PUR	5	1838243-3	1838255-3
3	PUR	7	1838243-4	1838255-4
3	PUR	10	1838243-5	1838255-5
4	PVC	2	1838244-1	1838256-1
4	PVC	3	1838244-2	1838256-2
4	PVC	5	1838244-3	1838256-3
4	PVC	7	1838244-4	1838256-4
4	PVC	10	1838244-5	1838256-5
4	PUR	2	1838245-1	1838257-1
4	PUR	3	1838245-2	1838257-2
4	PUR	5	1838245-3	1838257-3
4	PUR	7	1838245-4	1838257-4
4	PUR	10	1838245-5	1838257-5
5	PVC	2	1838246-1	1838258-1
5	PVC	3	1838246-2	1838258-2
5	PVC	5	1838246-3	1838258-3
5	PVC	7	1838246-4	1838258-4
5	PVC	10	1838246-5	1838258-5
5	PUR	2	1838247-1	1838259-1
5	PUR	3	1838247-2	1838259-2
5	PUR	5	1838247-3	1838259-3
5	PUR	7	1838247-4	1838259-4
5	PUR	10	1838247-5	1838259-5
8	PVC	2	1838343-1	1838391-1
8	PVC	3	1838343-2	1838391-2
8	PVC	5	1838343-3	1838391-3
8	PVC	7	1838343-4	1838391-4
8	PVC	10	1838343-5	1838391-5
8	PUR	2	1838344-1	1838392-1
8	PUR	3	1838344-2	1838392-2
8	PUR	5	1838344-3	1838392-3
8	PUR	7	1838344-4	1838392-4
8	PUR	10	1838344-5	1838392-5

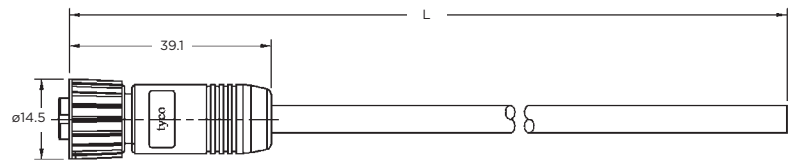
M12 Straight Shielded Connectors, Single End Terminated



Male



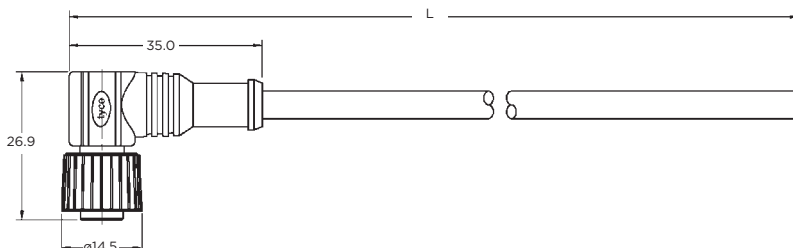
Female



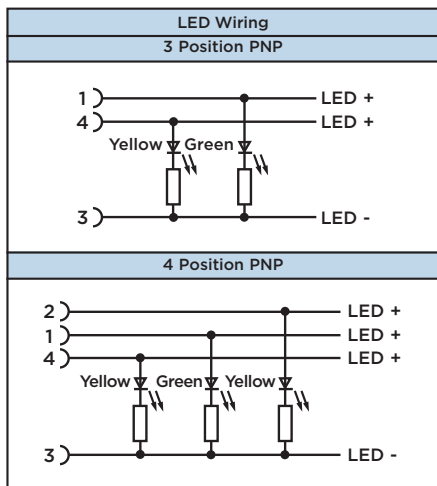
No. OF POLES & CONTACT CONFIGURATION (Connection side view)	
Male	Female
3 	3 
4 	4 
5 	5 
COLOUR IDENTIFICATION	
1 = Brown, 2 = White, 3 = Blue, 4 = Black, 5 = Green	
8 	8 
COLOUR IDENTIFICATION	
1 = Black, 2 = Brown, 3 = White, 4 = Blue, 5 = Red, 6 = Orange, 7 = Yellow, 8 = Green	

Positions	Cable	Length (L) Metres	Part Number	
			Male	Female
3	PVC	2	1838365-1	1838357-1
3	PVC	3	1838365-2	1838357-2
3	PVC	5	1838365-3	1838357-3
3	PVC	7	1838365-4	1838357-4
3	PVC	10	1838365-5	1838357-5
3	PUR	2	1838366-1	1838358-1
3	PUR	3	1838366-2	1838358-2
3	PUR	5	1838366-3	1838358-3
3	PUR	7	1838366-4	1838358-4
3	PUR	10	1838366-5	1838358-5
4	PVC	2	1838367-1	1838359-1
4	PVC	3	1838367-2	1838359-2
4	PVC	5	1838367-3	1838359-3
4	PVC	7	1838367-4	1838359-4
4	PVC	10	1838367-5	1838359-5
4	PUR	2	1838368-1	1838360-1
4	PUR	3	1838368-2	1838360-2
4	PUR	5	1838368-3	1838360-3
4	PUR	7	1838368-4	1838360-4
4	PUR	10	1838368-5	1838360-5
5	PVC	2	1838369-1	1838361-1
5	PVC	3	1838369-2	1838361-2
5	PVC	5	1838369-3	1838361-3
5	PVC	7	1838369-4	1838361-4
5	PVC	10	1838369-5	1838361-5
5	PUR	2	1838370-1	1838362-1
5	PUR	3	1838370-2	1838362-2
5	PUR	5	1838370-3	1838362-3
5	PUR	7	1838370-4	1838362-4
5	PUR	10	1838370-5	1838362-5
8	PVC	2	1838363-1	1838355-1
8	PVC	3	1838363-2	1838355-2
8	PVC	5	1838363-3	1838355-3
8	PVC	7	1838363-4	1838355-4
8	PVC	10	1838363-5	1838355-5
8	PUR	2	1838364-1	1838356-1
8	PUR	3	1838364-2	1838356-2
8	PUR	5	1838364-3	1838356-3
8	PUR	7	1838364-4	1838356-4
8	PUR	10	1838364-5	1838356-5

M12 Right Angle Female Connectors with LED Single End Terminated



No. OF POLES & CONTACT CONFIGURATION (Connection side view)	
3	
4	
COLOUR IDENTIFICATION	
1 = Brown, 2 = White, 3 = Blue, 4 = Black	

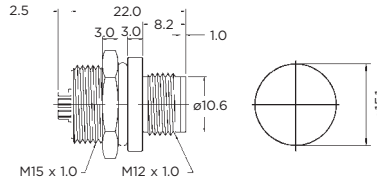


Positions	Cable	Length (L) Metres	Part Number
3	PVC	2	1838264-1
3	PVC	3	1838264-2
3	PVC	5	1838264-3
3	PVC	7	1838264-4
3	PVC	10	1838264-5
3	PUR	2	1838265-1
3	PUR	3	1838265-2
3	PUR	5	1838265-3
3	PUR	7	1838265-4
3	PUR	10	1838265-5
4	PVC	2	1838266-1
4	PVC	3	1838266-2
4	PVC	5	1838266-3
4	PVC	7	1838266-4
4	PVC	10	1838266-5
4	PUR	2	1838267-1
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4	PUR	5	1838267-3
4	PUR	7	1838267-4
4	PUR	10	1838267-5

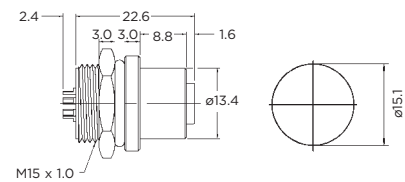
M12 Panel Mount Connectors



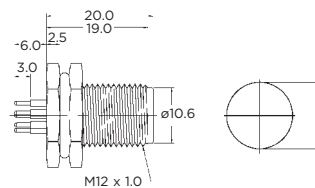
Male Solder Terminals
Circular Front Flange



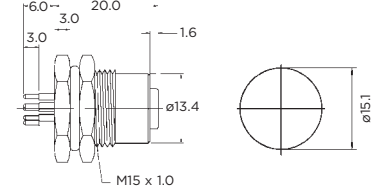
Female Solder Terminals
Circular Front Flange



Male PCB Pins
Hexagonal Front Nut



Female PCB Pins
Hexagonal Front Nut



Circular Panel Cutout

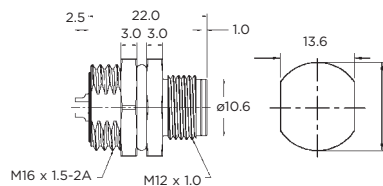
No. OF POLES & CONTACT CONFIGURATION (Connection side view)			
Male			
3	4	5	8
Female			
3	4	5	8

Positions	Part Number Male		Part Number Female	
	Solder Terminals Rear Mount	PCB Pins Front Mount	Solder Terminals Rear Mount	PCB Pins Front Mount
3	1838418-1*	1838420-1	1838415-1*	1838417-1*
4	1838418-2*	1838420-2	1838415-2*	1838417-2*
5	1838418-3*	1838420-3	1838415-3*	1838417-3*
8	1838418-4*	1838420-4	1838415-4*	1838417-4*

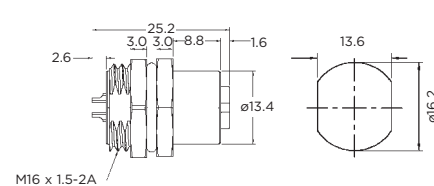
* Compatible with PG9 Circular Panel Cutouts



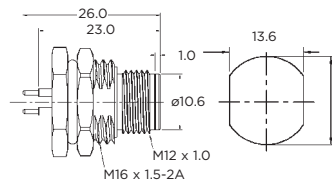
Male Solder Terminals
Hexagonal Front Flange



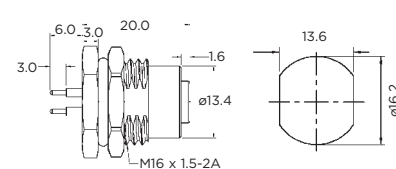
Female Solder Terminals
Hexagonal Front Flange



Male PCB Pins
Hexagonal Front Nut



Female PCB Pins
Hexagonal Front Nut



M16 Thread, Double D Cutout

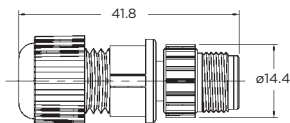
No. OF POLES & CONTACT CONFIGURATION (Connection side view)			
Male			
3	4	5	8
Female			
3	4	5	8

Positions	Part Number Male		Part Number Female	
	Solder Terminals Rear Mount	PCB Pins Front Mount	Solder Terminals Rear Mount	PCB Pins Front Mount
3	1838893-1	1838894-1	1838891-1	1838892-1
4	1838893-2	1838894-2	1838891-2	1838892-2
5	1838893-3	1838894-3	1838891-3	1838892-3
8	1838893-4	1838894-4	1838891-4	1838892-4

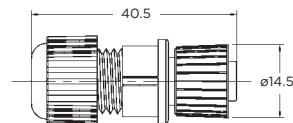
M12 Field Serviceable Connectors



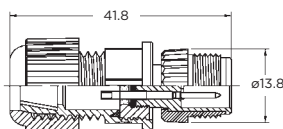
Male Metal



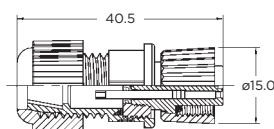
Female Metal



Male Plastic



Female Plastic

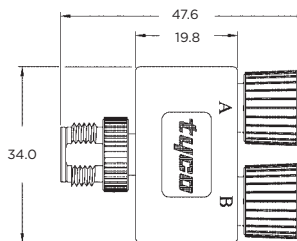


Solder Terminals

No. OF POLES & CONTACT CONFIGURATION (Connection side view)			
Male			
3	4	5	8
			
Female			
3	4	5	8
			

Positions	Part Numbers Male		Part Numbers Female	
	Metal	Plastic	Metal	Plastic
3	1838275-1	1838277-1	1838274-1	1838276-1
4	1838275-2	1838277-2	1838274-2	1838276-2
5	1838275-3	1838277-3	1838274-3	1838276-3
8	1838275-4	1838277-4	1838274-4	1838276-4

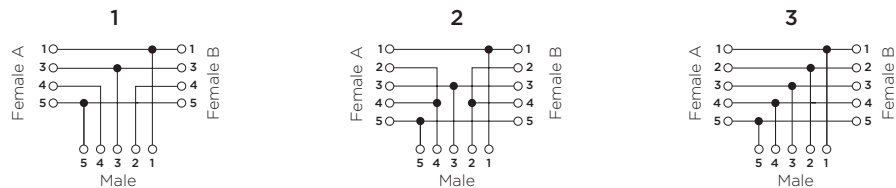
M12 Y Adaptors



No. OF POLES & CONTACT CONFIGURATION (Connection side view)	
Male	Female
5	5
	

Positions	Configuration	Internal Connection	Part Number
5	Male - Female Female	1	1838895-1
5	Male - Female Female	2	1838896-1
5	Male - Female Female	3	1838897-1

Internal Connections



Part Number Index

Part No	Page No	Part No	Page No	Part No	Page No	Part No	Page No	Part No	Page No	Part No	Page No
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1838236-2	5	1838249-3	5	1838266-4	8	1838290-4	3	1838356-5	7	1838370-1	7
1838236-3	5	1838249-4	5	1838266-5	8	1838290-5	3	1838357-1	7	1838370-2	7
1838236-4	5	1838249-5	5	1838267-1	8	1838291-1	3	1838357-2	7	1838370-3	7
1838236-5	5	1838250-1	5	1838267-2	8	1838291-2	3	1838357-3	7	1838370-4	7
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