



# Field Attachable and Moulded Connectors

The RJ-Lnxx® range of connectors achieves an IP67 rating by using a rugged outer shell that fully seals the RJ-45 connector from environmental factors like water, dirt, dust and oil. Field-attachable male connectors provides maximum flexibility by allowing the machine / system builder to affix the necessary cable length themselves when either the cable length is unknown or the connector needs to be attached after cable installation for example through ducting or conduit.

The pre-wired male and female moulded connectors totally eliminate any possibility of termination errors during on-site installation and combine great mechanical strength with IP67 ingress protection to provide maximum data integrity under the most arduous of operating conditions. Male connectors mate directly with the whole range of female receptacles and also provide the data link between the RJ-Lnxx IP67 Ethernet switch, Ethernet I/O module and the datacoms network. The female connectors are used on equipment where there is limited room to fit a female receptacle and are also used to extend network length in male/female connector configurations.

## Cable

To ensure the connectors can be used in a wide range of industrial and harsh external applications, Woodhead has developed a number of Category 5e datacoms cables:

- Polyurethane (PUR) jacketed cables are the natural choice for factory environments, providing maximum resistance to oil, grease and general contaminants encountered on the shop floor.  
RJ-CAB-V cable has solid conductors, is suitable for fixed applications and allows transmission distances of up to 100metres.  
RJ-CAB-C cable has a stranded core construction and is suitable where the connector is subject to limited or infrequent movement. Transmission distances are limited to 30metres due to the inferior attenuation properties of stranded conductors. Both cables provide a good degree of EMC protection due to the FTP foil screen construction.
- Two cables are available for external applications and for areas within factory environments where equipment washdown is a regular occurrence such as food processing. Featuring a rugged black Polyethylene (PE) outer jacket that resists cutting or ripping, the cables are waterproof and U/V stable against sunlight.  
RJ-CAB-X has solid core unshielded (UTP) construction and is particularly suited to fixed external applications. RJ-CAB-Y provides additional EMC and physical protection due to the addition of a foil (FTP) screen. Both cables are suitable for transmission lengths of up to 100m.
- RJ-CAB-P has been created for the most severe of uses. Featuring a Kevlar weave protecting the stranded flexible conductors and a thick waterproof PUR outer jacket, the cable is particularly suited for outdoor mobile applications where there is a risk of crushing standard cables and losing data communications as a result. Recommended maximum transmission length is 30metres due to the stranded core construction.
- For repetitive movement applications such as dragchains, RJ-CAB-D should be used.

In addition to being fitted to the pre-terminated moulded connectors, all the above cables can be supplied in 50m or 305m reels for use either with field attachable connectors or for applications where industrial grade data cable without connectors is required, see page 10.



## Male Field Attachable Connectors



Fitted with standard shielded Cat 5e male plugs  
Available for both solid core and stranded (patch) core cable  
Accepts 24/26 AWG/0.50mm FTP/UTP datacoms cable with outer jacket O/D from 2.5mm – 6.5mm  
Uses standard AMP style shielded RJ-45 crimp tools  
10/100 Base TX, 568A, 568B compatible  
Ingress protection to IP67, Cat 5e rated

Part Number	Description
ENSAM315	Field attachable connector for solid core FTP/UTP cable
ENQAM315	Field attachable connector for stranded (patch) core FTP/UTP cable
RJ56-0200-01	Replacement shielded male plug for ENSAM315
RJ56-0200-02	Replacement shielded male plug for ENQAM315

# Male and Female Moulded Connectors



The RJ-Lnxx® range of moulded connectors are available in a number of head and cable configurations to suit the majority of industrial and commercial applications. Being pre-wired and individually tested, connectivity is guaranteed on installation and also eliminates the cost, complexity and potential wiring errors associated with on-site termination.

Industrial male connectors provide a robust data connection when mated to the range of RJ-Lnxx IP67 rated female receptacles, Ethernet switches, Ethernet I/O modules and closure caps.

Industrial female connectors are used where either there is limited cabinet space for female receptacles or there is a need to extend the data link in hostile environments as part of a male/female double ended connector. Again, IP67 ingress protection is assured when mated with RJ-Lnxx male connectors or closure caps.

The two principle datacoms wire maps are available as standard:

10/100 Base TX 568A – 4 pair, 8 wire – Example part number ENV2115M020

10/100 Base TX 568B – 4 pair, 8 wire – Example part number ENV3115M020

Where necessary, 'pure Ethernet' 2 pair, 4 wire connectors (Pin wiring 1,2,3,6) can be specified as an option eg. ENV1115M020, however 4 pair, 8 wire versions provide maximum data connectivity potential and are therefore strongly recommended.

In conjunction with the cable descriptions opposite, use the cable selector guide below to choose the correct cable by application







Cable ref	Description	Typical part no.	Transmission distance		Flexible Applications	EMC	Oil/Dirt Water, U/V
			100M	30M			
RJCAB- <b>V</b>	FTP/Solid Conductor/ PUR Jacket	ENV3115M020	•			•	•
RJCAB- <b>C</b>	FTP/Stranded Conductor/ PUR Jacket	ENC3115M020		•	•	•	•
RJCAB- <b>D</b>	FTP/Stranded Conductor/ PUR Jacket	END3115M020		•	•	•	•
RJCAB- <b>P</b>	FTP/Stranded Conductor/ PUR Jacket/Kevlar	ENP3115M020		•	•	•	•
RJCAB- <b>X</b>	UTP/Solid Conductor/ PE Jacket	ENX3115M020	•				•
RJCAB- <b>Y</b>	FTP/Solid Conductor/ Pe Jacket	ENY3115M020	•			•	•

The following UL/CSA cables are available as an option

RJCAB- <b>S</b>	FTP/Solid Conductor/ PUR Jacket	ENS3115M020	•			•	•
RJCAB- <b>Q</b>	UTP/Stranded Conductor/ PVC Jacket	ENQ3115M020		•	•		

## Connector Head Configurations

The RJ-Lnxx moulded connector range comprises male moulded connectors, female moulded connectors and standard RJ-45 male connectors which are available in the following configurations, with other variations available on request. The table below details the range of connector configuration available as standard, using **V** cable as an example, this being the preferred cable choice for the majority of applications.

	Length	10/100 BaseTX, 568A	10/100 BaseTX, 568B
<b>Industrial Male – Free End</b>			
	1m	ENV2105M010	ENV3105M010
	2m	ENV2105M020	ENV3105M020
	3m	ENV2105M030	ENV3105M030
	4m	ENV2105M040	ENV3105M040
	5m	ENV2105M050	ENV3105M050
<b>Industrial Male – Industrial Male</b>			
	1m	ENV2115M010	ENV3115M010
	2m	ENV2115M020	ENV3115M020
	3m	ENV2115M030	ENV3115M030
	4m	ENV2115M040	ENV3115M040
	5m	ENV2115M050	ENV3115M050
<b>Industrial Male – Standard Male</b>			
	1m	ENV2135M010	ENV3135M010
	2m	ENV2135M020	ENV3135M020
	3m	ENV2135M030	ENV3135M030
	4m	ENV2135M040	ENV3135M040
	5m	ENV2135M050	ENV3135M050
<b>Industrial Female – Free End</b>			
	1m	ENV2205M010	ENV3205M010
	2m	ENV2205M020	ENV3205M020
	3m	ENV2205M030	ENV3205M030
	4m	ENV2205M040	ENV3205M040
	5m	ENV2205M050	ENV3205M050
<b>Industrial Female – Industrial Female</b>			
	1m	ENV2225M010	ENV3225M010
	2m	ENV2225M020	ENV3225M020
	3m	ENV2225M030	ENV3225M030
	4m	ENV2225M040	ENV3225M040
	5m	ENV2225M050	ENV3225M050
<b>Industrial Female – Industrial Male</b>			
	1m	ENV2215M010	ENV3215M010
	2m	ENV2215M020	ENV3215M020
	3m	ENV2215M030	ENV3215M030
	4m	ENV2215M040	ENV3215M040
	5m	ENV2215M050	ENV3215M050

Lengths above 5 metres are available in multiples of 5m. e.g. ENV2135M100 (10M), ENV2135M250 (25m)