

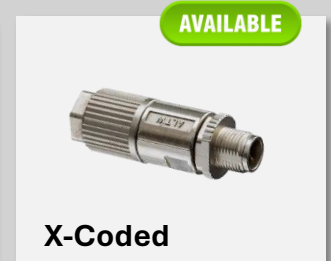
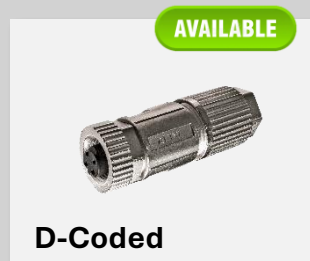
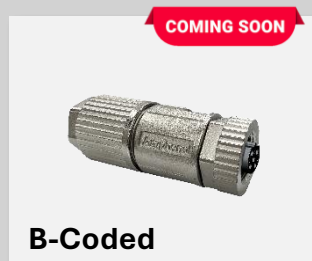
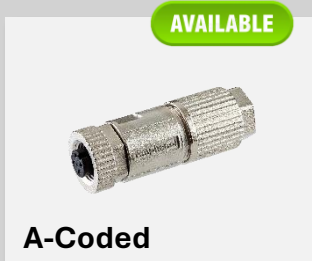
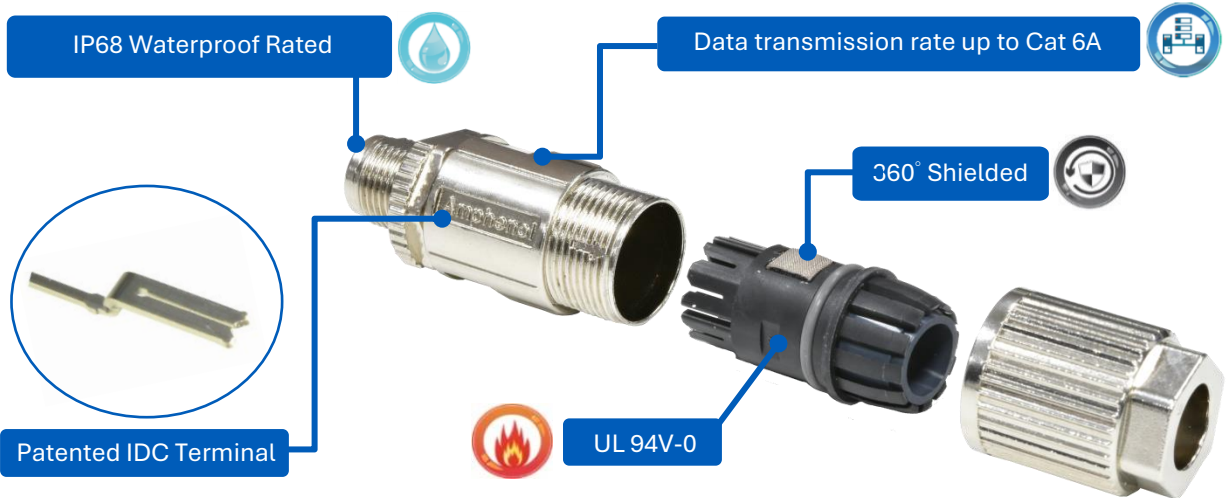
M12 On-Site IDC Connector

Screwless Solderless Fast Connection

For your quick wire termination

Introducing the M12 IDC Field-Installable Connectors – by Amphenol LTW. This connector facilitates swift termination without the need to strip wire insulation, promoting a dependable connection and increased efficiency during on-site field installation.

With support for 10 Gbps data transmission and boasting an IP68 waterproof rating, this field-installable connector is the optimal solution for high-speed outdoor applications.



General Specification:

- Current rating: 0.5A, 4A
- Voltage rating: 50 VAC, 60 VDC, 250V
- Temperature Range: -40 °C ~ +105°C
- Durability: 1000 cycles
- Contact Resistance: 15 mΩ Max.
- Cable OD: $\Phi 4.7 \sim \Phi 9.0\text{mm}$
- Wire Gauge Recommended: 20AWG ~ 26AWG
- IEC 61076-2-101: M12 A-/B-/D-Coded
- IEC 61076-2-109: M12 X-Coded
- Vibration and Mechanical Shock: SAE J2839 (X-coded)

M12 On-Site A-Coded IDC Connector

No. of Contacts	4		5		8																																													
Gender	Male	Female	Male	Female	Male	Female																																												
Pin Assignment																																																		
Connection Cross Section IDC	26 - 20 AWG 0.14 - 0.50 mm²		26 - 20 AWG 0.14 - 0.50 mm²		26 - 20 AWG 0.14 - 0.50 mm²																																													
Industrial Communication Protocols / Part Number / Wire Colors																																																		
Signal	MSAS-04BMMD-SL8005	MSAS-04BFFD-SL8005	MSAS-05BMMD-SL8005	MSAS-05BFFD-SL8005	MSAS-08BMMD-SL8005	MSAS-08BFFD-SL8005																																												
	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>1</td><td> Brown</td></tr><tr><td>2</td><td> White</td></tr><tr><td>3</td><td> Blue</td></tr><tr><td>4</td><td> Black</td></tr></table>	Pin	Wire Color	1	Brown	2	White	3	Blue	4	Black		<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>1</td><td> Brown</td></tr><tr><td>2</td><td> White</td></tr><tr><td>3</td><td> Blue</td></tr><tr><td>4</td><td> Black</td></tr></table>	Pin	Wire Color	1	Brown	2	White	3	Blue	4	Black	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>5</td><td> Gray</td></tr></table>	Pin	Wire Color	5	Gray	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>1</td><td> White</td></tr><tr><td>2</td><td> Brown</td></tr><tr><td>3</td><td> Green</td></tr><tr><td>4</td><td> Yellow</td></tr></table>	Pin	Wire Color	1	White	2	Brown	3	Green	4	Yellow	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>5</td><td> Gray</td></tr><tr><td>6</td><td> Pink</td></tr><tr><td>7</td><td> Blue</td></tr><tr><td>8</td><td> Red</td></tr></table>	Pin	Wire Color	5	Gray	6	Pink	7	Blue	8	Red
Pin	Wire Color																																																	
1	Brown																																																	
2	White																																																	
3	Blue																																																	
4	Black																																																	
Pin	Wire Color																																																	
1	Brown																																																	
2	White																																																	
3	Blue																																																	
4	Black																																																	
Pin	Wire Color																																																	
5	Gray																																																	
Pin	Wire Color																																																	
1	White																																																	
2	Brown																																																	
3	Green																																																	
4	Yellow																																																	
Pin	Wire Color																																																	
5	Gray																																																	
6	Pink																																																	
7	Blue																																																	
8	Red																																																	
Ethernet	MSAS-04BMMD-SL8001	MSAS-04BFFD-SL8001	-	-	MSAS-08BMMD-SL8001	MSAS-08BFFD-SL8001																																												
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal Ethernet</th></tr><tr><td>1</td><td> Yellow</td><td>TD+</td></tr><tr><td>2</td><td> Orange</td><td>TD-</td></tr><tr><td>3</td><td> White</td><td>RD+</td></tr><tr><td>4</td><td> Blue</td><td>RD-</td></tr></table>	Pin	Wire Color	Signal Ethernet	1	Yellow	TD+	2	Orange	TD-	3	White	RD+	4	Blue	RD-		-	-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal Ethernet</th></tr><tr><td>1</td><td> White/Blue</td><td>D3-</td></tr><tr><td>2</td><td> White/Brown</td><td>D4+</td></tr><tr><td>3</td><td> Brown</td><td>D4-</td></tr><tr><td>4</td><td> Orange</td><td>D1-</td></tr></table>	Pin	Wire Color	Signal Ethernet	1	White/Blue	D3-	2	White/Brown	D4+	3	Brown	D4-	4	Orange	D1-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal Ethernet</th></tr><tr><td>5</td><td> White/Green</td><td>D2+</td></tr><tr><td>6</td><td> White/Orange</td><td>D1+</td></tr><tr><td>7</td><td> Blue</td><td>D3+</td></tr><tr><td>8</td><td> Green</td><td>D2-</td></tr></table>	Pin	Wire Color	Signal Ethernet	5	White/Green	D2+	6	White/Orange	D1+	7	Blue	D3+	8	Green
Pin	Wire Color	Signal Ethernet																																																
1	Yellow	TD+																																																
2	Orange	TD-																																																
3	White	RD+																																																
4	Blue	RD-																																																
Pin	Wire Color	Signal Ethernet																																																
1	White/Blue	D3-																																																
2	White/Brown	D4+																																																
3	Brown	D4-																																																
4	Orange	D1-																																																
Pin	Wire Color	Signal Ethernet																																																
5	White/Green	D2+																																																
6	White/Orange	D1+																																																
7	Blue	D3+																																																
8	Green	D2-																																																
DeviceNet (ODVA)	-	-	MSAS-05BMMD-SL8003	MSAS-05BFFD-SL8003	-	-																																												
	-	-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal DeviceNet™</th></tr><tr><td>1</td><td> Shield</td><td>Drain</td></tr><tr><td>2</td><td> Red</td><td>V+</td></tr><tr><td>3</td><td> Black</td><td>V-</td></tr><tr><td>4</td><td> White</td><td>CAN_H</td></tr></table>	Pin	Wire Color	Signal DeviceNet™	1	Shield	Drain	2	Red	V+	3	Black	V-	4	White	CAN_H	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal DeviceNet™</th></tr><tr><td>5</td><td> Blue</td><td>CAN_L</td></tr></table>	Pin	Wire Color	Signal DeviceNet™	5	Blue	CAN_L	-	-																							
Pin	Wire Color	Signal DeviceNet™																																																
1	Shield	Drain																																																
2	Red	V+																																																
3	Black	V-																																																
4	White	CAN_H																																																
Pin	Wire Color	Signal DeviceNet™																																																
5	Blue	CAN_L																																																
PROFIBUS PA	MSAS-04BMMD-SL8004	MSAS-04BFFD-SL8004	-	-	-	-																																												
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td> Orange</td><td>DATA+</td></tr><tr><td>2</td><td></td><td></td></tr><tr><td>3</td><td> Blue</td><td>DATA-</td></tr><tr><td>4</td><td></td><td>Shield</td></tr></table>	Pin	Wire Color	Signal	1	Orange	DATA+	2			3	Blue	DATA-	4		Shield		-	-	-																														
Pin	Wire Color	Signal																																																
1	Orange	DATA+																																																
2																																																		
3	Blue	DATA-																																																
4		Shield																																																
FOUNDATION Fieldbus	MSAS-04BMMD-SL8010	MSAS-04BFFD-SL8010	-	-	-	-																																												
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td> Blue</td><td>DATA-</td></tr><tr><td>2</td><td> Orange</td><td>DATA+</td></tr><tr><td>3</td><td></td><td>Shield</td></tr><tr><td>4</td><td></td><td></td></tr></table>	Pin	Wire Color	Signal	1	Blue	DATA-	2	Orange	DATA+	3		Shield	4				-	-	-																														
Pin	Wire Color	Signal																																																
1	Blue	DATA-																																																
2	Orange	DATA+																																																
3		Shield																																																
4																																																		
CC-Link	MSAS-04BMMD-SL8006	MSAS-04BFFD-SL8006	-	-	-	-																																												
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td> Shield</td><td>SLD</td></tr><tr><td>2</td><td> White</td><td>DS</td></tr><tr><td>3</td><td> Yellow</td><td>DG</td></tr><tr><td>4</td><td> Blue</td><td>DA</td></tr></table>	Pin	Wire Color	Signal	1	Shield	SLD	2	White	DS	3	Yellow	DG	4	Blue	DA		-	-	-																														
Pin	Wire Color	Signal																																																
1	Shield	SLD																																																
2	White	DS																																																
3	Yellow	DG																																																
4	Blue	DA																																																
VARAN	-	-	-	-	MSAS-08BMMD-SL8007	MSAS-08BFFD-SL8007																																												
	-	-	-	-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td>n. c.</td><td></td></tr><tr><td>2</td><td> White/Orange</td><td>TD+</td></tr><tr><td>3</td><td> Orange</td><td>TD-</td></tr><tr><td>4</td><td>n. c.</td><td></td></tr></table>	Pin	Wire Color	Signal	1	n. c.		2	White/Orange	TD+	3	Orange	TD-	4	n. c.		<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>5</td><td> White/Green</td><td>RD+</td></tr><tr><td>6</td><td> Blue</td><td></td></tr><tr><td>7</td><td> Brown</td><td></td></tr><tr><td>8</td><td> Green</td><td>RD-</td></tr></table>	Pin	Wire Color	Signal	5	White/Green	RD+	6	Blue		7	Brown		8	Green	RD-														
Pin	Wire Color	Signal																																																
1	n. c.																																																	
2	White/Orange	TD+																																																
3	Orange	TD-																																																
4	n. c.																																																	
Pin	Wire Color	Signal																																																
5	White/Green	RD+																																																
6	Blue																																																	
7	Brown																																																	
8	Green	RD-																																																
AS-Interface	MSAS-04BMMD-SL8008	MSAS-04BFFD-SL8008	-	-	-	-																																												
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td> Blue</td><td>AS-i+</td></tr><tr><td>2</td><td> White</td><td></td></tr><tr><td>3</td><td> Brown</td><td>AS-i-</td></tr><tr><td>4</td><td> Black</td><td></td></tr></table>	Pin	Wire Color	Signal	1	Blue	AS-i+	2	White		3	Brown	AS-i-	4	Black			-	-	-																														
Pin	Wire Color	Signal																																																
1	Blue	AS-i+																																																
2	White																																																	
3	Brown	AS-i-																																																
4	Black																																																	

M12 On-Site B-/D-/X-Coded IDC Connector

Code	B		D		X																																											
No. of Contacts	5		4		8																																											
Gender	Male	Female	Male	Female	Male	Female																																										
Pin Assignment																																																
Connection Cross Section IDC	26 - 20 AWG 0.14 - 0.50 mm ²		26 - 20 AWG 0.14 - 0.50 mm ²		26 - 22 AWG 0.14 - 0.34 mm ²																																											
Industrial Communication Protocols / Part Number / Wire Colors																																																
Signal	MSBS-05BMMD-SL8005	MSBS-05BFFD-SL8005	MSDS-04BMMD-SL8002	MSDS-04BFFD-SL8002	-	-																																										
	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>1</td><td> Brown</td></tr><tr><td>2</td><td> White</td></tr><tr><td>3</td><td> Blue</td></tr><tr><td>4</td><td> Black</td></tr></table>	Pin	Wire Color	1	Brown	2	White	3	Blue	4	Black	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>5</td><td> Gray</td></tr></table>	Pin	Wire Color	5	Gray	<table><tr><th>Pin</th><th>Wire Color</th></tr><tr><td>1</td><td> Yellow</td></tr><tr><td>2</td><td> White</td></tr><tr><td>3</td><td> Orange</td></tr><tr><td>4</td><td> Blue</td></tr></table>	Pin	Wire Color	1	Yellow	2	White	3	Orange	4	Blue	-	-																			
	Pin	Wire Color																																														
1	Brown																																															
2	White																																															
3	Blue																																															
4	Black																																															
Pin	Wire Color																																															
5	Gray																																															
Pin	Wire Color																																															
1	Yellow																																															
2	White																																															
3	Orange																																															
4	Blue																																															
Ethernet	-	-	MSDS-04BMMD-SL8001	MSDS-04BFFD-SL8001	MSAS-08BMMD-SL8001	MSAS-08BFFD-SL8001																																										
	-	-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal Ethernet</th></tr><tr><td>1</td><td> White/Orange</td><td>TD+</td></tr><tr><td>2</td><td> White/Green</td><td>RD+</td></tr><tr><td>3</td><td> Orange</td><td>TD-</td></tr><tr><td>4</td><td> Green</td><td>RD-</td></tr></table>	Pin	Wire Color	Signal Ethernet	1	White/Orange	TD+	2	White/Green	RD+	3	Orange	TD-	4	Green	RD-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal Ethernet</th></tr><tr><td>1</td><td> White/Orange</td><td>D1+</td></tr><tr><td>2</td><td> Orange</td><td>D1-</td></tr><tr><td>3</td><td> White/Green</td><td>D2+</td></tr><tr><td>4</td><td> Green</td><td>D2-</td></tr><tr><td>5</td><td> White/Brown</td><td>D4+</td></tr><tr><td>6</td><td> Brown</td><td>D4-</td></tr><tr><td>7</td><td> White/Blue</td><td>D3-</td></tr><tr><td>8</td><td> Blue</td><td>D3+</td></tr></table>	Pin	Wire Color	Signal Ethernet	1	White/Orange	D1+	2	Orange	D1-	3	White/Green	D2+	4	Green	D2-	5	White/Brown	D4+	6	Brown	D4-	7	White/Blue	D3-	8	Blue	D3+	-	-
	Pin	Wire Color	Signal Ethernet																																													
1	White/Orange	TD+																																														
2	White/Green	RD+																																														
3	Orange	TD-																																														
4	Green	RD-																																														
Pin	Wire Color	Signal Ethernet																																														
1	White/Orange	D1+																																														
2	Orange	D1-																																														
3	White/Green	D2+																																														
4	Green	D2-																																														
5	White/Brown	D4+																																														
6	Brown	D4-																																														
7	White/Blue	D3-																																														
8	Blue	D3+																																														
PROFINET EtherCAT	-	-	MSDS-04BMMD-SL8002	MSDS-04BFFD-SL8002	-	-																																										
	-	-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td> Yellow</td><td>TD+</td></tr><tr><td>2</td><td> White</td><td>RD+</td></tr><tr><td>3</td><td> Orange</td><td>TD-</td></tr><tr><td>4</td><td> Blue</td><td>RD-</td></tr></table>	Pin	Wire Color	Signal	1	Yellow	TD+	2	White	RD+	3	Orange	TD-	4	Blue	RD-	-	-																												
	Pin	Wire Color	Signal																																													
1	Yellow	TD+																																														
2	White	RD+																																														
3	Orange	TD-																																														
4	Blue	RD-																																														
Ethernet (CAT 6A)	-	-	-	-	MSXS-08BMMD-SL8001	MSXS-08BFFD-SL8001																																										
	-	-	-	-	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal Ethernet</th></tr><tr><td>1</td><td> White/Orange</td><td>D1+</td></tr><tr><td>2</td><td> Orange</td><td>D1-</td></tr><tr><td>3</td><td> White/Green</td><td>D2+</td></tr><tr><td>4</td><td> Green</td><td>D2-</td></tr><tr><td>5</td><td> White/Brown</td><td>D4+</td></tr><tr><td>6</td><td> Brown</td><td>D4-</td></tr><tr><td>7</td><td> White/Blue</td><td>D3-</td></tr><tr><td>8</td><td> Blue</td><td>D3+</td></tr></table>	Pin	Wire Color	Signal Ethernet	1	White/Orange	D1+	2	Orange	D1-	3	White/Green	D2+	4	Green	D2-	5	White/Brown	D4+	6	Brown	D4-	7	White/Blue	D3-	8	Blue	D3+	-	-														
	Pin	Wire Color	Signal Ethernet																																													
1	White/Orange	D1+																																														
2	Orange	D1-																																														
3	White/Green	D2+																																														
4	Green	D2-																																														
5	White/Brown	D4+																																														
6	Brown	D4-																																														
7	White/Blue	D3-																																														
8	Blue	D3+																																														
PROFIBUS DP	MSBS-05BMMD-SL8004	MSBS-05BFFD-SL8004	-	-	-	-																																										
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td>-</td><td>-</td></tr><tr><td>2</td><td> Green</td><td>A cable</td></tr><tr><td>3</td><td>-</td><td>-</td></tr><tr><td>4</td><td> Red</td><td>B cable</td></tr></table>	Pin	Wire Color	Signal	1	-	-	2	Green	A cable	3	-	-	4	Red	B cable	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>5</td><td>Drain wire</td><td>-</td></tr></table>	Pin	Wire Color	Signal	5	Drain wire	-	-	-	-	-																					
	Pin	Wire Color	Signal																																													
1	-	-																																														
2	Green	A cable																																														
3	-	-																																														
4	Red	B cable																																														
Pin	Wire Color	Signal																																														
5	Drain wire	-																																														
INTERBUS	MSBS-05BMMD-SL8009	MSBS-05BFFD-SL8009	-	-	-	-																																										
	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>1</td><td> Yellow</td><td>DO</td></tr><tr><td>2</td><td> Green</td><td>DO</td></tr><tr><td>3</td><td> Gray</td><td>DI</td></tr><tr><td>4</td><td> Pink</td><td>DI</td></tr></table>	Pin	Wire Color	Signal	1	Yellow	DO	2	Green	DO	3	Gray	DI	4	Pink	DI	<table><tr><th>Pin</th><th>Wire Color</th><th>Signal</th></tr><tr><td>5</td><td> Brown</td><td>COM</td></tr><tr><td>-</td><td> White</td><td>NC</td></tr></table>	Pin	Wire Color	Signal	5	Brown	COM	-	White	NC	-	-	-	-																		
	Pin	Wire Color	Signal																																													
1	Yellow	DO																																														
2	Green	DO																																														
3	Gray	DI																																														
4	Pink	DI																																														
Pin	Wire Color	Signal																																														
5	Brown	COM																																														
-	White	NC																																														

M12 On-Site IDC Connector Assembly Instruction



- 01**

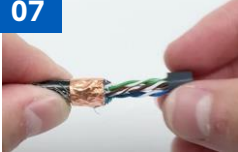

Choose the right connector and cable
- 02**

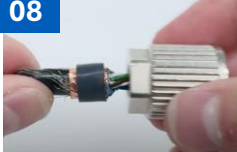

Strip cable with cable stripper
- 03**


Trimming the braided shield ensures proper grounding and minimizes interference
- 04**


Removing the foil shield exposes the inner wires
- 05**


Carefully stripping the mylar prevents damage to the wires
- 06**


Pick up the copper foil. Carefully wrap it around the stripped portion of the cable
- 07**


Take a seal, pass it through the cable
- 08**


Then slide the sealing nut through the cable
- 09**


Cut off any unnecessary twisted pair wires
- 10**


Insert the wires into the connector
- 11**


Secure the connection using the patented locking mechanism
- 12**


Verify the connection
- 13**


Finalize the installation



Think Globally, Act Locally

Contact Us

Luc Kan | Sales & Marketing

Email: luc@ltw-tech.com

Customer Service

Email: sales@ltw-tech.com

Follow Us



Unrivaled InterConnects for Harsh Environments