

Case study: Anywire and 3M collaborate to create a breakthrough factory automation solution

About AnywireASLINK

In the spirit of continuous improvement, Anywire, a group company of Mitsubishi Electric, wanted to enhance its already successful AnywireASLINK solution.

The AnywireASLINK is a sensor-level network that connects controllers, displays and sensors to guide preventive maintenance with “sensing level monitoring.” The current solution gave customers improved productivity plus time and space savings. However, the team at Anywire identified features that could make the system even better:

1. Ability to use any general-purpose cable
2. Ability to transmit power and signals over two-core cable
3. Topology-free: support of T-branching, multiple drops, star wiring, and tree wiring
4. High noise immunity
5. Ease of connecting and branching networks

Solution

One of Anywire’s challenges was finding the right connector, and for this they turned to the team at 3M. Together, Anywire and 3M developed a breakthrough “eco branch” system using 3M™ Link Connectors.

These connectors helped to address several goals with their simple and time-saving installation process and connector configurations.

Installation of a 3M™ Link Connector



Step 1



Step 2



Step 3

* Connector component cost savings based on comparison to parallel design using M12 connectors.

30%



Total system cost reduction*

80%



Connector assembly time savings

50%



Connector component cost reduction*

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Anywire’s “eco branch” system offers resource savings, space savings, and cost savings and is guided by the five features above. 3M™ Link Connectors were key to turning these plans into reality.

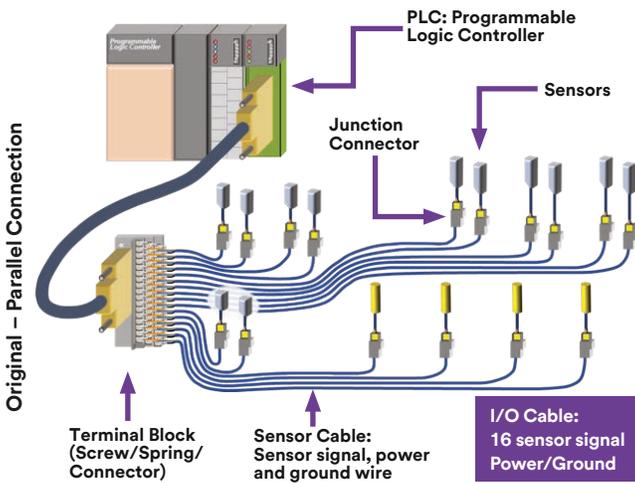
Any general-purpose cable can be used

By allowing standard cabling to be used, customers were now able to utilize existing cabling. Branching in the middle of wiring is made possible through the IDC technology used in 3M™ Link Connectors.

Topology-free

3M™ Link Connectors support line extensions, T-tap branching and H-tap branching. These options allow

Connection using Terminal block



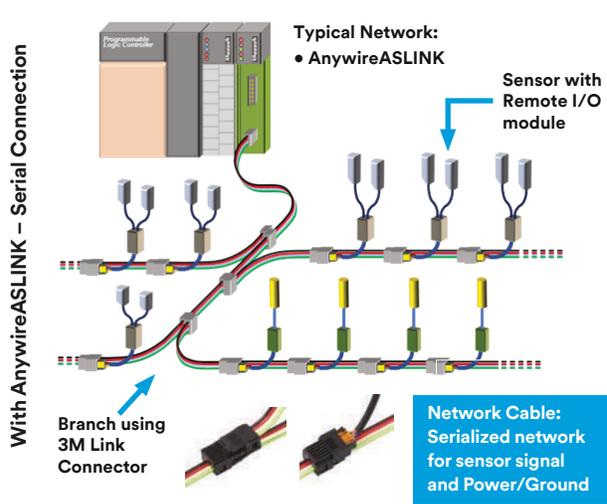
Anywire’s customers to optimize their system for performance and material utilization.

Ease of connecting and branching networks

Use of the 3M™ Link Connector also saves installation time compared to traditional connectors. In addition, because there is no need to strip wiring jackets, waste is virtually eliminated from the process.

The different connector configurations, which help to optimize the system, include a detachable, two-piece style, a one-piece style with IPX4 option, and one that allows direct attachment to a sensor.

Network using 3M™ Link Connector



Connector Comparison	System Comparison
<ul style="list-style-type: none"> ● Assembly time reduced by 80%+ ● Component costs reduced by ~50% with simplified design (vs. M12) 	<ul style="list-style-type: none"> ● Total cost reduced by ~30%

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