

Moduflex IO-Link

Smart Control of Pneumatic Valve Manifolds



IO-Link communication is quickly expanding within the Factory Automation market space as a low cost method of connecting I/O "on the network". The **Moduflex IO-Link** module brings this exciting technology to Parker's key valve manifold ranges. Process data is easily accessible and can be monitored by PLC to help reduce or even prevent downtime.

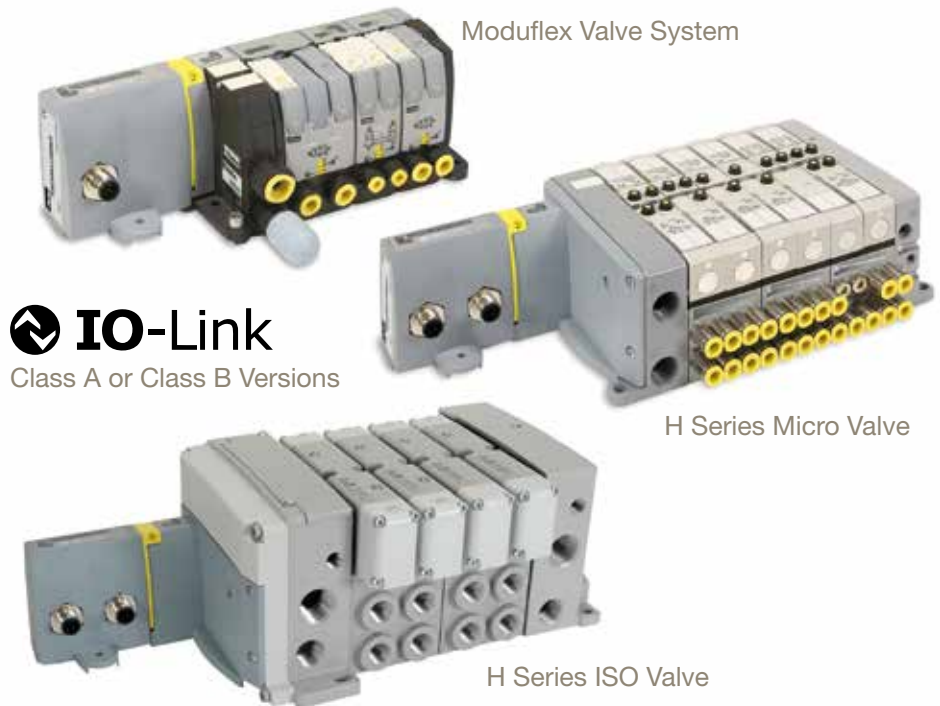
Superior Value

This product reduces overall machine cost via low cost connection to a network while also providing diagnostic information. The **Moduflex IO-Link** communicates diagnostic information through the PLC, and also has local LED status lights to help diagnose a problem.

- IO-Link com status
- Module error
- Output error
- Auxillary power



Moduflex IO-Link Module
Diagnostic LEDs



IO-Link
Class A or Class B Versions

Product Features:

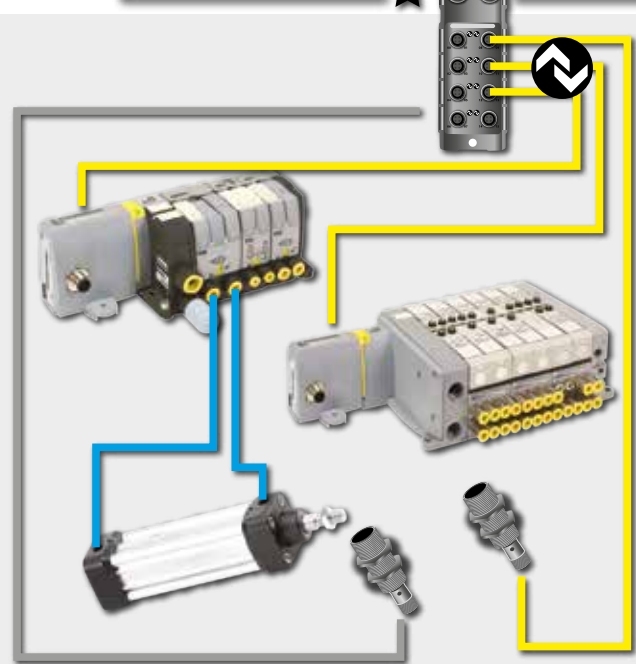
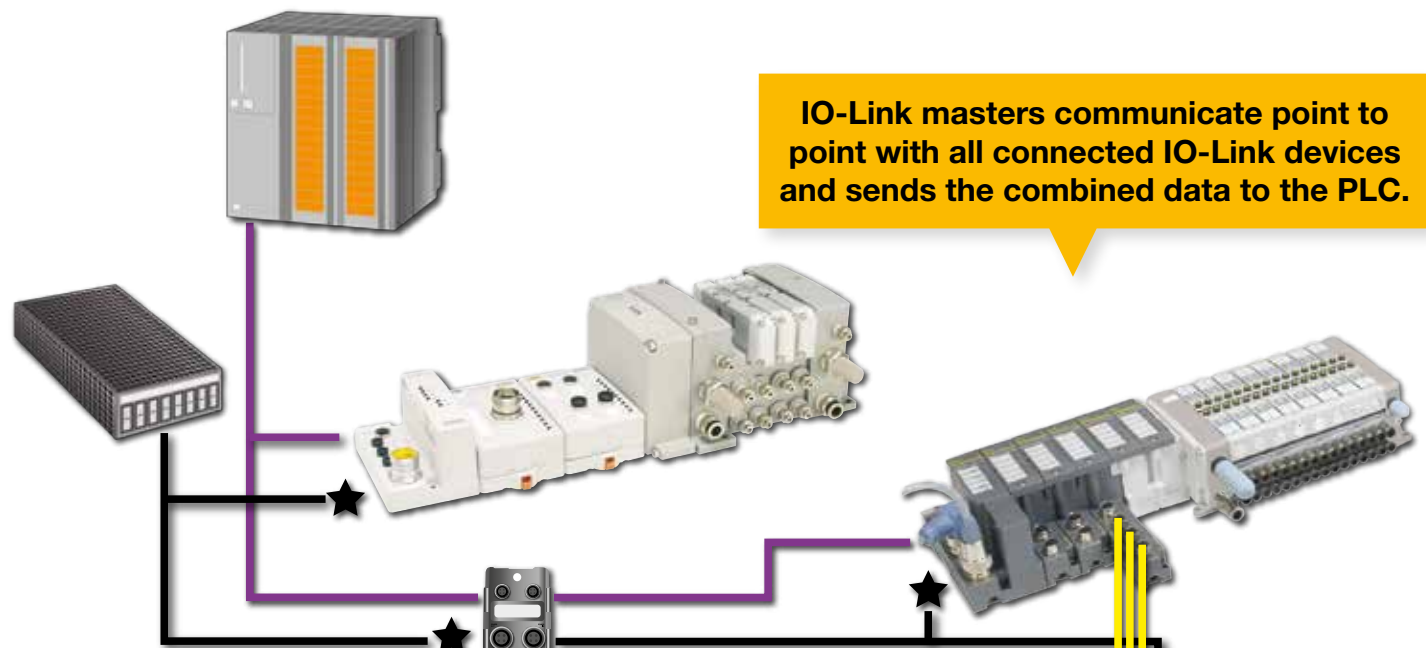
- Certified according to latest IO-Link standard: V1.1.2
- Industry standard pin-out configurations for easy connection.
- Connection to valve manifolds with Cv from .18 to 6.0
- Class B module offers one M12 connector for both communications and auxiliary power for easy connection to Class B IO-Link Masters.
- Class A module offers one M12 for connection to Class A IO-Link Master and one M12 for easy connection to auxiliary power for solenoids.
- Easy access to Prognostic & Diagnostic data.
- Easy connection to SAFE power source for valve control



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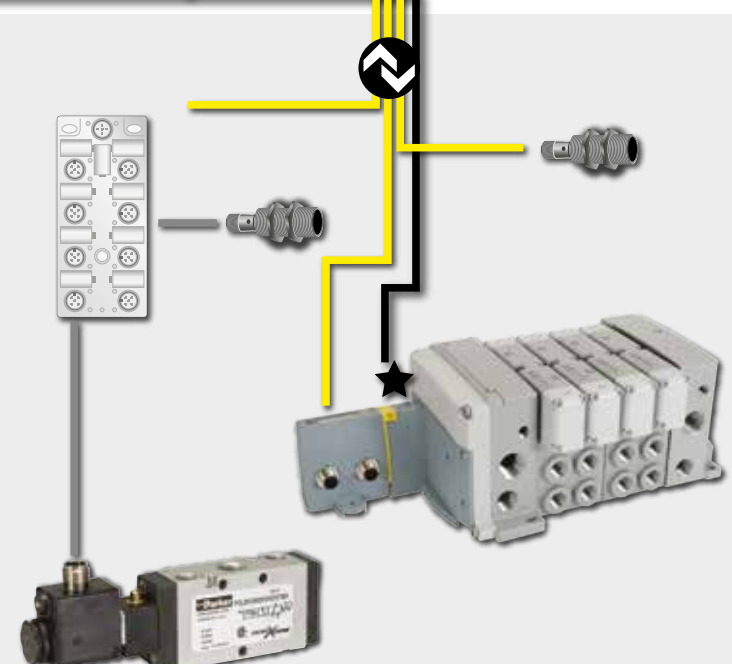




Network to Remote IO-Link Master

Reduce cabinet size by using De-centralized "on-machine" IO-Link Master

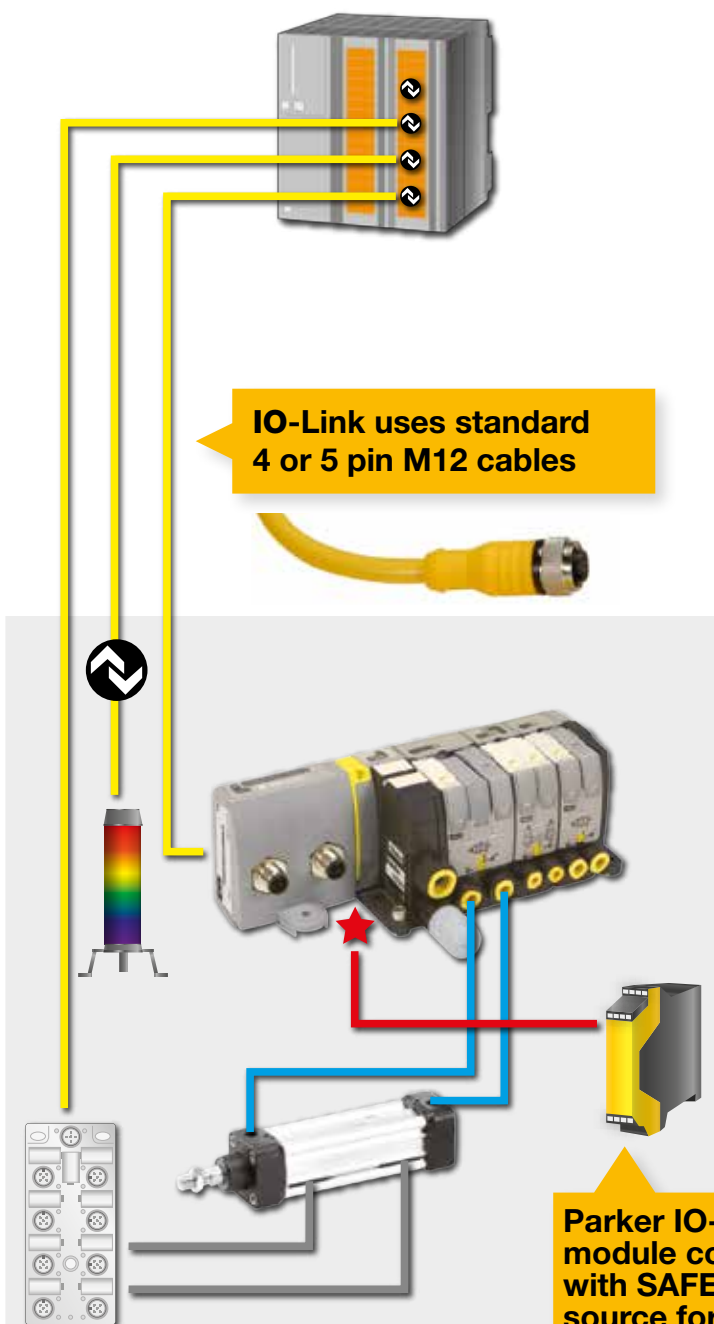
- * Master on the existing network
- * Control all local I/O with IO-Link
 - "Smart" I/O
 - Discrete I/O



Node Expansion Using IO-Link

Reduce node count by adding IO-Link Master module onto BL67 manifold

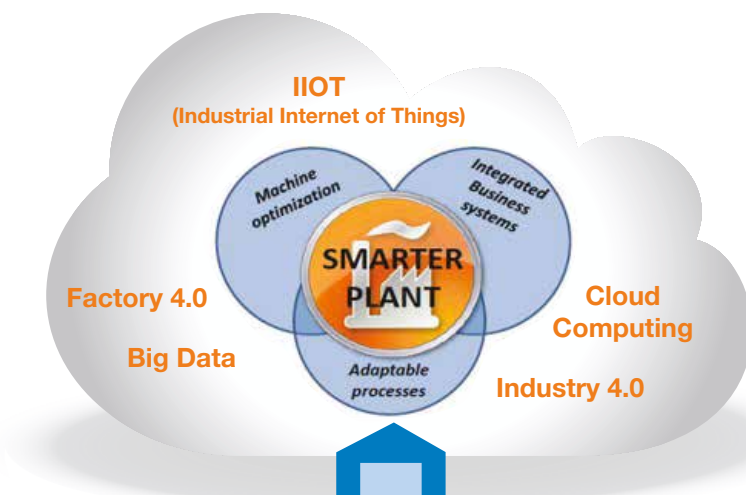
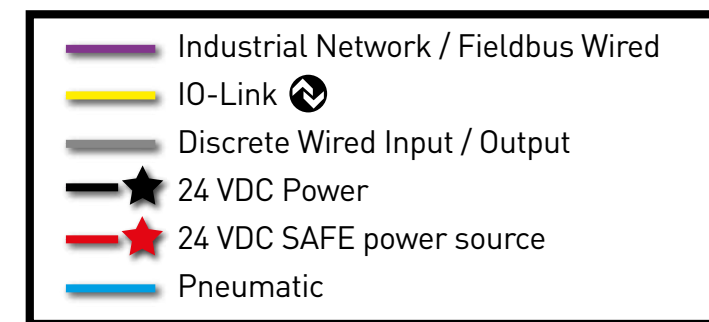
- * 20m max length for I/O-Link cables
- * Control all "smart I/O" on 1 node
- * Reduce cost of secondary valve manifold
 - Using Moduflex IO-Link module



Non-Network I/O Control Using IO-Link

Use PLC with integrated IO-Link Master for machines with smaller I/O counts

- * 20m max length for I/O-Link cables
- * Control all local I/O with IO Link
 - "Smart" I/O
 - Discrete I/O



IO-Link is another step towards the Smarter Plant by lowering the cost for gathering component level prognostics and diagnostics.

Out of Tolerance Warnings

- * Voltage
- * Temperature

Error Descriptors

- * Solenoid Short Circuit
- * IO-Link Communication Error
- Cycle Count for each valve

THIS IS **EASIER**

Faster Install than Discrete Wire
Standard IP67 M12 Cable

THIS IS **SAVINGS**

Fewer Network Nodes
Easy Expandability

THIS IS **VALUE**

Easy Access Diagnostics
Prognostics to Prevent Downtime

Moduflex IO-Link Module

Connection Types and Power:

Class A Master:

Class A Module with (2) M12 connectors for IO-Link and auxiliary power up to 3.6A valve power.



Class B master:

Class B Module with (1) M12 connector for IO-Link and valve power up to limit of Class B Master output. Use Class A module with auxiliary power if Class B Master cannot provide enough power.

M12 Pins	Class B 5 pins P2M...B	Class A 3 pins P2M...A	Class A		
			3 Pins P2M...A13	5 Pins P2M...A43	5 Pins P2m...A42
1	L+	L+	Aux +	Not used	Not used
2	Aux +	-	-	-	Aux -
3	L-	L-	Aux -	Aux -	Not used
4	C/Q	C/Q	Not used	Aux +	Aux +
5	Aux -	-	-	-	Not used

Class A and B units are compatible with SAFE power source for valve control.

See user manual document number 30048690201W05 at www.parker.com/pde/io-link

	IO-Link Class	IO-Link	Aux Power	Aux. Power Pinout	Weight (g)	Order Code
	Class A	3 Pins	3 Pins	1 & 3	160	P2M2HBVL12400A13
		3 Pins	3 Pins	4 & 3	160	P2M2HBVL12400A43
		3 Pins	5 Pins	4 & 2	160	P2M2HBVL12400A42
	Class B	5 Pins		2 & 5	140	P2M2HBVL12400B25

Further details: www.parker.com/pde/io-link

Valve Series

Choose valve series based on flow required for application. Check maximum solenoid current consumption against limit of power supply.



Modulflex Valve

Cv: .18 - 0.80

19 Solenoids

42mA per Sol.



H Micro

Cv: 0.35

24 Solenoids

42mA per Sol.



H ISO 15407-2

Cv: 0.55 - 1.1

24 Solenoids

42mA per Sol.



H ISO 5599-2

Cv: 1.5 - 6.0

24 Solenoids

133mA per Sol.



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