



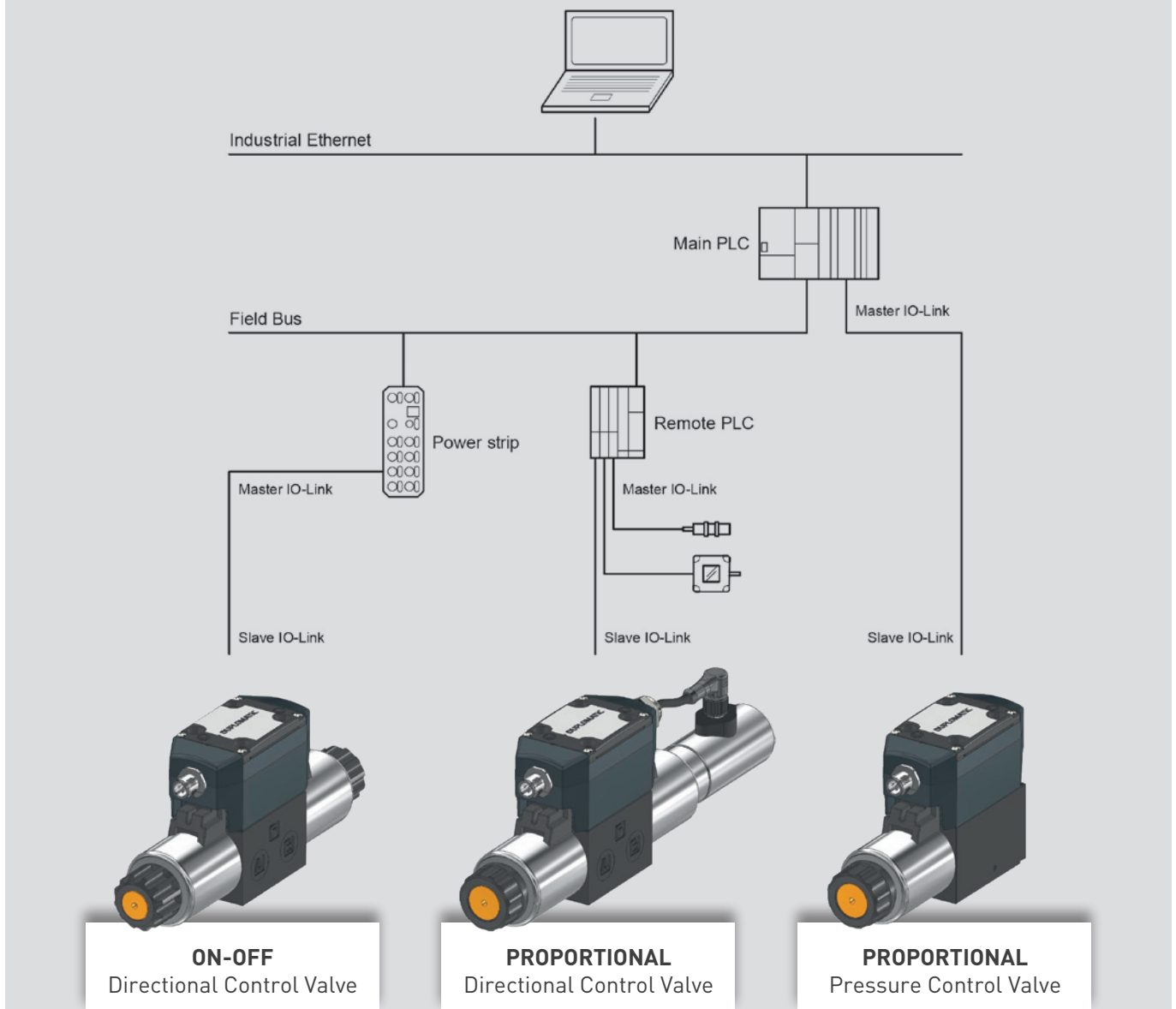
Hydraulic
solenoid valves
with
IO-Link

DUPLOMATIC
MOTION SOLUTIONS

a member of **DAIKIN** group

IO-Link AND HYDRAULICS: ON-OFF

IO-Link SYSTEM with IO-Link MASTER and IO-Link DEVICES



THE PERFECT SOLUTION for INDUSTRY 4.0 and INTERNET of THINGS

IO-Link solutions enable to integrate either **ON-OFF** or **PROPORTIONAL** hydraulic valves into digital communication systems, with reduced engineering effort and minimum hardware requirements.

Standard cables and 5-pin M12 connectors, already in use for actuators and sensors, enable simple and cost-efficient connection of hydraulic valves in the field.

Data availability for predictive maintenance, as well as quick and easy device replacement are also advantages of IO-Link solutions, which are particularly suitable for cost-competitive applications.

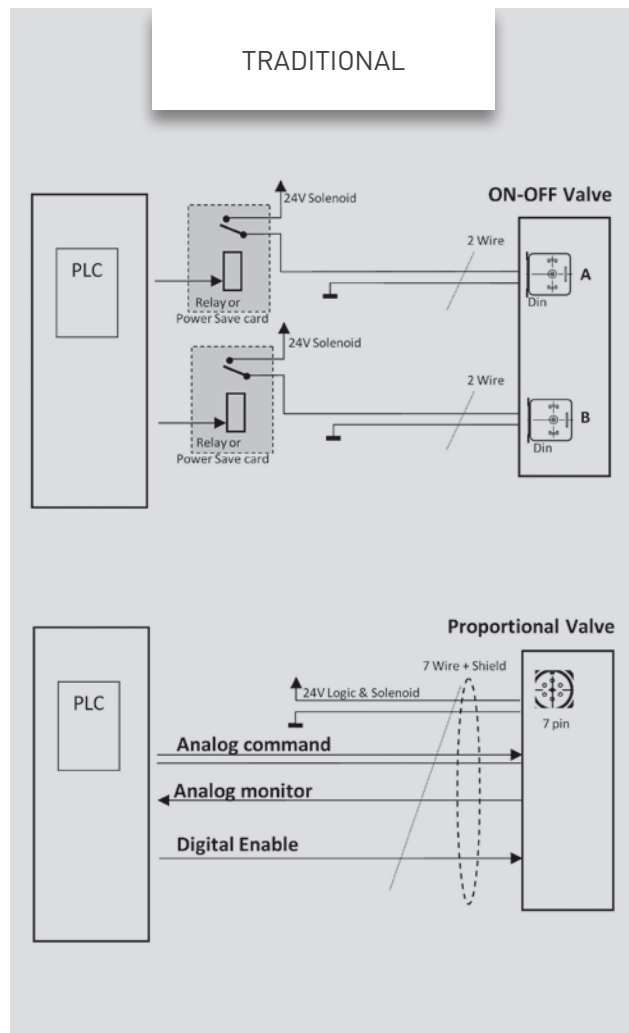
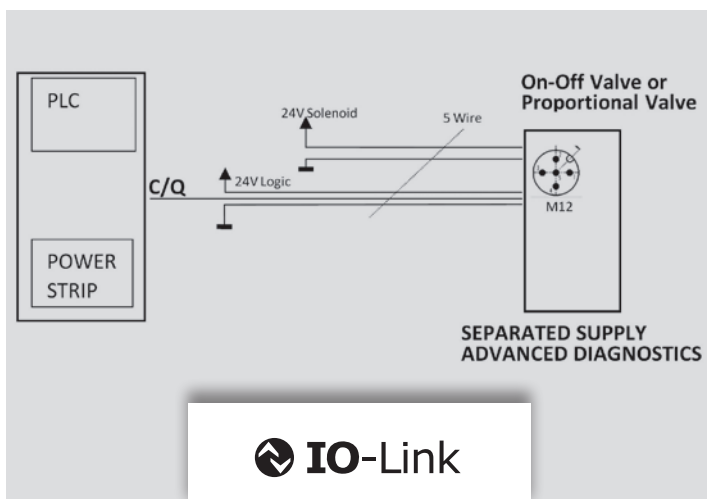
IO-Link solutions foster OEM systems into Industry 4.0 and Internet of Things.



F AND PROPORTIONAL SOLUTIONS

EASY INTEGRATION and DIAGNOSTIC FUNCTION

- IO-Link should not be considered as a new fieldbus for communications, but as an efficient transmission system that can directly connect the digital output of the PLC to the hydraulic valve
- IO-Link is a point to point connection between the main or the remote PLC or the IO power strip and any type of hydraulic valve
- The IO-Link wire connection can be a simple unshielded cable
- IO-Link allows the use of different supplies for logic and power
- IO-Link is a full digital connection

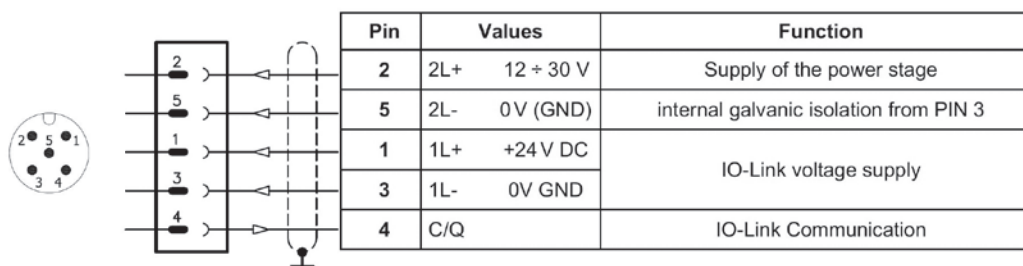


The traditional solution requires different wiring for each type of valve. In case of ON-OFF valves, a power PLC output or a relay must be used. The traditional connection doesn't allow the exchange of diagnostic information with the PLC or the change of the valve's setup parameters.

IO-Link solutions, on the other hand, use the 5-pin M12 connection for each type of valve, replacing the traditional 7 or 12 pin wiring of PROPORTIONAL valves.

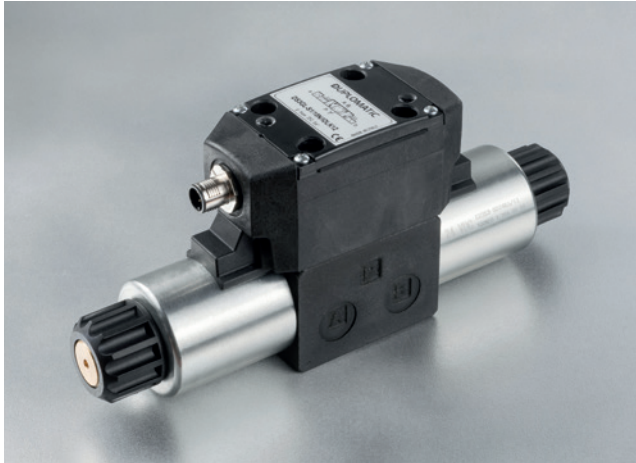
IO-Link valves enable diagnostics and setting adjustments, as required by Industry 4.0.

IO-Link connection
5-pin M12 A
(IEC 61076-2-101)



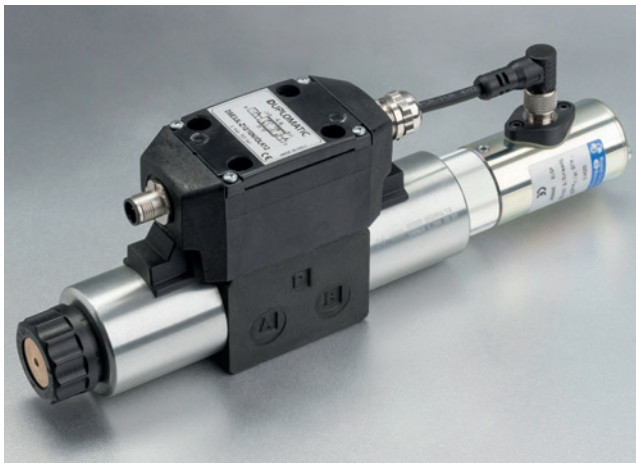
IO-Link PRODUCT RANGE

IO-Link communication allows the main PLC to access a full set of diagnostic capabilities. These are some examples of Duplomatic's product range with IO-Link connection:



DS3GL ON-OFF Directional Control Valves

- Direct operated, with digital integrated electronics and mounting interface in compliance with ISO 4401-03 standards
- **IO-Link communication**
- Different options are available: soft-shifting, fast-shifting, power-saving; as well as zinc-nickel coating that ensures a salt spray resistance up to 600 hours



DSE3JL Proportional Directional Control Valves

- Direct operated, with digital integrated electronics and LVDT position transducer. Mounting interface in compliance with ISO 4401-03 standards
- **IO-Link communication**
- They control positioning and speed of hydraulic actuators
- Easy to install





PDE3GL Proportional Pressure Control Valves

- Direct operated, with digital integrated electronics and mounting interface in compliance with ISO 4401 standards
- **IO-Link communication**
- Suitable to pilot two-stage valves, for pressure control in hydraulic circuits
- Available in five pressure control ranges, up to 350 bar

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