Over 40 years’ tradition in manufacturing safety and reliable closed-loop systems for Industrial Automation

Hydraulic solenoid valves with IO-LINK
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 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.
• IO-LINK is not to be considered as a new communication fieldbus; it is an efficient complement, that can connect the PLC digital output directly 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 the case of an ON-OFF valve, 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 have the same connection for every type of valve**; it replaces the traditional wiring of both ON-OFF valves and PROPORTIONAL valves with 7 or 12 pin connectors.

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)
A full set of diagnostic functions are available for the main PLC through the IO-LINK communication. 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