

PD3 AMPLIFIER ELECTRONICS

Wandfluh valves support the Industrial Internet of Things

PD3 ELECTRONICS

Amplifier electronics	IO-Link	Analogue
Solenoid execution MT	x	x
PD3	x	x

DESCRIPTION

The Industrial Internet of Things (IIoT) connects the components used in a value added chain to form an intelligent overall system in order to optimise operational efficiency in terms of rationalisation, automation and maintenance. This requires intelligent components with corresponding interfaces from all branches, including hydraulics. Intelligent products are characterised by the ability to communicate with the outer world. They can collect, prepare and transmit their own environmental and status data. The intelligent components are able to carry out a self-diagnosis and from this deduce recommendation actions.

The valve as actuator in a hydraulic system is systematically digitised and equipped with a standardised interface that allows its status data to be directly transmitted to the IT world. The valve with the attached electronics (PD3) can collect data such as solenoid temperature, currents, voltages, operating times etc. and make them available for evaluation. Communication takes place via a digital interface. This replaces the conventional analogue interfaces and thus also eliminates the technical problems that can arise from signal interferences in the lines. As digital interface, the IO-Link system is used. It guarantees a simple, standardised connection to intelligent master devices, which on their part can transmit the data directly from the valve to the IT world. At the same time, the actual control of the valve takes place via the classical channel to the PLC.



PD3 electronics



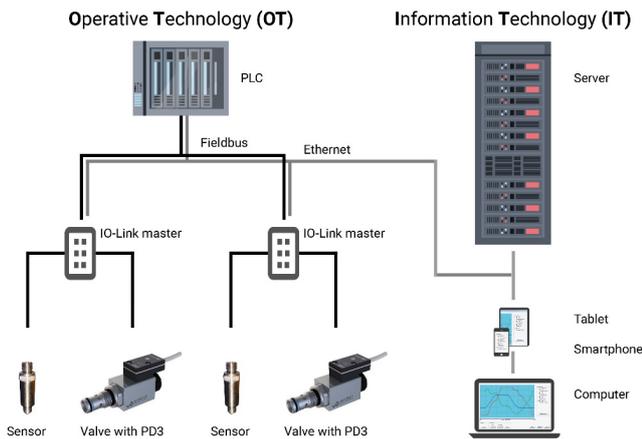
Valve with IO-Link electronics (PD3)

FEATURES

- Supports IIoT - digitised and equipped with a standardised interface (IO-Link)
- Additional data can be collected, transmitted and further processed
- The PD3 valve electronics is also available as a separate control device and can thus control all common valves on the market



IIOT STRUCTURE



The Industrial Internet of Things

CHARACTERISTICS

- IO-Link enables complete parameterisation directly from the IO-Link master
- Parameterisation and reading of data and information also with Wandfluh App via Bluetooth interface
- Operation without IO-Link with analogue input possible

By means of tool-supported parameter adjustment and central data retention, decisive advantages for rapid project planning and commissioning and for the simple creation of up-to-date system documentation arise during parameterisation from the IO-Link Master.

CONNECTION OT AND IT

The way to using all data consists of connecting the automation technology (Operative Technology OT) with the classic IT level. This means that the sensor/actuator data can be directly imported into the ERP system or in other systems. With this technology, data can be independently collected from the machine control system, selected and made available over all levels. The digital twin of a sensor or actuator is here the digital image of the physical device. Besides its properties, it also knows the current status. Appropriate hardware and software components enable direct networking of all connected sensors and actuators in the IT world. Through this connection, machine data, process parameters and diagnostic data can be directly read out and further processed in the IT world. Easy-to-operate software allows data evaluation by means of client-specific configurable cockpits (dashboards).

WANDFLUH APP

For wireless programming and parameterisation, the new Wandfluh App is available. It can be found for Android and iOS in the respective App Store.

