



DELTA CU4 AS-Interface Control Unit

The DELTA CU4 AS-interface network connects sensors and actuators quickly, simply, and at low cost. The cabling requirements are reduced to only one cable with two conductors, meaning the case of wiring mistakes is not an issue. The cable both transmits the signal and provides the components with power. The network can be structured in any desired configuration and can be extended wherever needed. This results in considerable advantages in planning, installation, and maintenance compared to networks configured in tree or line structures.

The majority of components used in automation technologies are binary sensors and actuators as well as analogue measuring transmitters of the lowest automation level.

Characteristics

The DELTA CU4 AS-interface is a standardised network system that is supported by leading companies. It can connect up to 62 slaves within one network and it has an active peripheral fault function, which will indicate miss-functions of the control unit. Furthermore, it can handle a signal for two solenoid valves at the same time - e.g. when used on a valve with a stroke limiter. Apart from the APV valves, all sensors, actuators, and analogue measuring transmitters equipped with an AS-Interface can be directly connected to the AS-I network. The DELTA CU4 AS-interface can easily be integrated into networks such as Sinec-L2/ET200, Interbus-S, Profibus, DeviceNet, CAN-Bus, Modbus, RS485, RS422, or RS232C.

Flexibility

The DELTA CU4 AS-interface is part of the APV DELTA CU4 product line family sharing a common piece part platform. Due to its modular design, the DELTA CU4 can be adapted to the various APV valve lines (BFVs, SSVs, DSVs) via individualized adapters. It is a suitable option for retrofit on APV's valves installed base and can also be retrofitted via adapters on other vendors' valves.



Application range

The DELTA CU4 AS-interface is an extension of the existing range of APV control units. Because of the minimum of cabling and I/O cards for the PLC, the DELTA CU4 AS-interface is a cost effective alternative to our standard DELTA CU4 Direct Connect control unit. Furthermore, it is an alternative to our intelligent DELTA CU Valve-Net control unit based on Profibus or DeviceNet. The DELTA CU4 AS-interface can be integrated into the same network as our DELTA CU Valve-Net, if intelligent communication is not needed in certain areas of your network.

The DELTA CU4 AS-interface connects binary elements at the process level, such as push-buttons, proximity switches, pressure switches and pneumatic valves to a master control system.

Features and benefits

- Reduced costs
- No additional field wiring
- Standard bus-system
- No dependence on single or specific suppliers
- Additional sensors and actuators can easily be connected
- ASI master for various PLCs available
- Rapid connection to the bus
- Low installation costs
- Existing valves can be retrofitted with the DELTA CU4 AS-interface

Technical data

Protocol and number of slaves	S-7.A.*E extended address mode with max. 62 slaves. Optional is S-7.F.F. standard address mode with 31 slaves
AS-interface specification	V 3.11
Cycle time	<5ms
Data output bits	DO1, DO2, DO3 for the solenoid valves
Data input bits	DI1, DI2, for the valve feed back sensors
Power consumption	<150 mA @ 2 solenoids active and 1 feedback sensor
Inverse-polarity protection	Yes
Identification of errors	Peri fault message for short circuit, overload and wire disconuity
Power	26,5 ...31,6V AS-interface standard
LED indication	- for solenoid status - valve feedback status - AS-interface enhanced status indication
Certificate	Certified according to AS-international Association
Max. air pressure	10 bar



DELTA DKR



DELTA SVS



DELTA SW4

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