I Application
The C-TOP control unit with the AS-i (Actuator Sensor Interface) communication is designed for automation of valves. This option is available for the valves supplied with C-TOP units (ball valve, butterfly valve, seat valves).

I Operating principle
The AS-i is a fieldbus system that allows to connect a network of actuators and sensors (detectors) to a control device of a higher level (Master).

Power supply, one or several master modules, bus cable (preformed cable) and the C-TOP prepared for AS-i connection (special internal card, connection cable, AS-i insulation displacement connector) are necessary to create an AS-i network.

The As-i fieldbus is provided with voltage by a power supply source.

The sensors and electrovalves connected to the fieldbus are controlled by the master module. Every Master sends the information to the PLC and controls up to 62 units (C-TOP's).

I Design and features
AS-i bus offers an easy, fast and economic interconnection of sensors and solenoid valves (actuators). It facilitates the assembly and the start-up of the plant as the cabling is considerably reduced. It also reduces the start-up time as well as it helps to avoid possible installation errors.

The C-TOP units can be set up according to the customer’s requirements.

Configuration of solenoid valves
- Single-acting actuation - 1 solenoid valve
- Double-acting actuation - 2 solenoid valves
- Mixproof valve – 3 solenoid valves*

Configuration of sensors
The valve position is detected by means of inductive detectors.
- 1 position (closed or open valve) - 1 sensor
- 2 positions (closed and open valve) - 2 sensors
- 3 positions (open valve, closed valve, Mixproof seat cleaning) - 3 sensors*

*Depending on the model
I Materials

Base     PPO + GF
End cap   Transparent PC
Seals    EPDM

I Options

External sensor (detection of the seat lift when it cannot be detected inside the C-TOP).
Materials for work under extreme conditions (PSU end cap).
Segment with 4 inputs y 4 outputs in AS-i 2.1 (31 slaves).

I Technical specifications

Max. working temperature    70 °C (158 °F)
Media                     lubricated compressed air, neutral gases according to DIN ISO 8573-1
Pneumatic connections     G1/8” (Ø 6 mm pipe)
Electrical connections    Cable (2 m) with insulation displacement connector (included)
Working pressure          1,5 - 7 bar (22 - 102 PSI)
Air flow                  150 Nl
Protection                IP 65 / 67 according to EN 60529
Adjustment range          3 - 70 mm
Weight                    560 - 640 g

I AS-i specifications

As-i card   3.0 compatible with 2.1 master
Voltage supply     29,5 - 31,6 VDC (via bus. Bus cable not included)
Max. number of C-TOP units    62 units (or slaves)
Connecting cable   2 m
Bus cable          100 m
As-i card max. capacity 3 inputs and 3 outputs (3 solenoid valves and 3 detectors)

I General dimensions

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