

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).

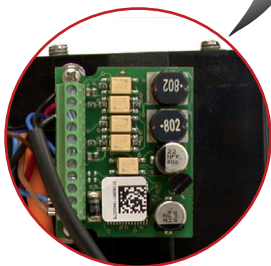
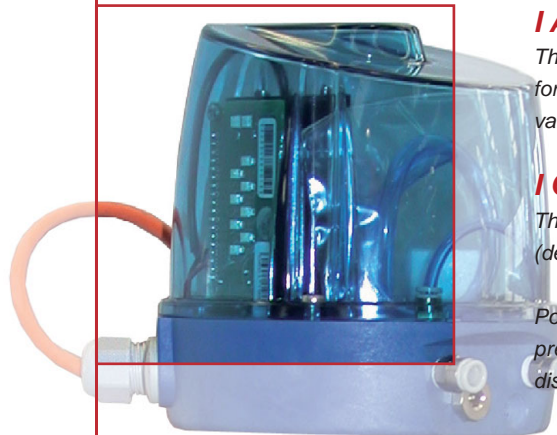
I Operating principle

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.

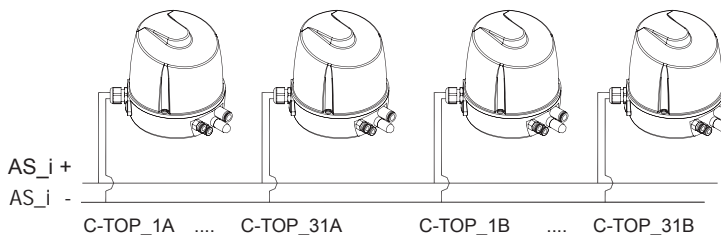
The As-i fieldbus is provided with voltage by a power supply source.

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).



AS-i insulation displacement connector

Up to 62 AS-i connectable C-TOP units per Master



The interconnection is made with a preformed cable. The preformed cable is used for transmitting information as well as a power supply of the solenoid valves and sensors. An AS-i version C-TOP must always be installed with inductive sensors and 24V DC.

The preformed cables and bus cables of the C-TOP's are connected by means of insulation displacement connectors, thus, the cables connecting every C-TOP with the control system are not necessary.

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 NI
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

