

C-TOP eX

Control unit



APPLICATION

The C-TOP eX is a control unit that fits every INOXPA actuator and automates pneumatically operated process valves located in potentially explosive areas in the food, beverage, chemical, and pharmaceutical industries, among others.

HOW IT WORKS

The control head has a sensor system with NAMUR feedback using an LED indicator and low voltage solenoid valves, which are suitable for connection to an electrical or intrinsic safety barrier, and to a PLC with a digital interface.

External signals activate one to three solenoid valves, which control and act on the valve actuator. At the same time, inductive sensors detect the position of the valve actuator using the metal target installed on the actuator shaft. The LED indicator will turn off once the set position is detected, sending the corresponding electrical signal through the electrical barrier to the PLC.

TECHNICAL SPECIFICATIONS

Materials

Plastic parts	PA6 + FV
Screws	A2
Seals	NBR
Pneumatic connections	nickel brass

Environment

Outdoor use	A location away from direct sunlight or UV sources
Storage temperature	-20°C to 50°C
Ambient temperature	-5°C to 50°C
Relative humidity	80% up to 31°C, decreasing to 50% at 40°C
Maximum altitude	2000 m
Overvoltage category	II
Pollution degree	2
Degree of protection	IP65/67

Control unit

Stroke	≤ 70 mm
Maximum actuator shaft diameter	22 mm
Adapter shaft diameter	6 mm

Type of fitting screws
 Fluid filtered compressed air, filtration degree 40 µm with or without lubrication

Inductive sensor

Feed NAMUR
 Output function normally closed
 Detection range 2 mm ± 10%
 Nominal voltage DC 8.2 V
 Pick up voltage DC 7.5 to 30 V (if using a safe area)
 Status indication LED, red (internal)
 Measuring method electromagnetic induction

Solenoid valves

Amount 0 - 3
 Type 3/2-way, normally closed with a manual latch
 Pressure range 3 - 7 bar
 Supply voltage 24 V DC ± 10%
 Power consumption 0.5 W

Solenoid valves

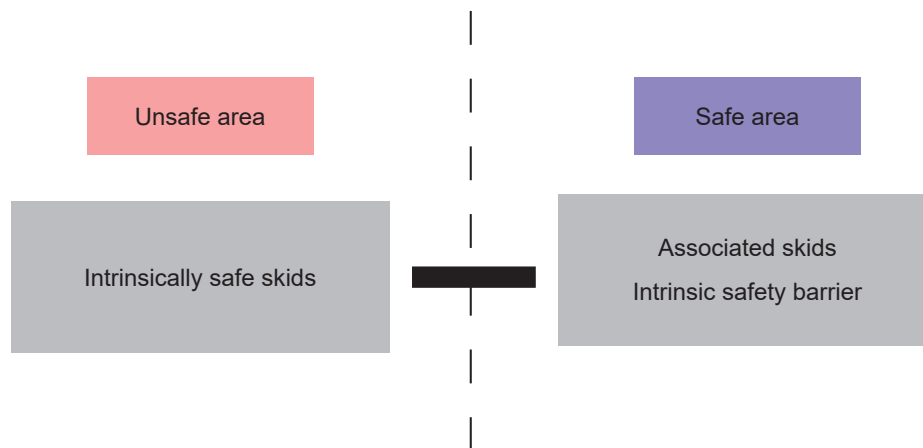
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Electrical interface

All electrical signals from each component must be connected to an electrical safety barrier in the safe area to form an intrinsically safe circuit.

For Group IIC devices,

	NAMUR sensor	Solenoid valves
Maximum input voltage (U_i)	15 V	35 V
Maximum input current (I_i)	50 mA	0.9 A
Maximum input power (P_i)	0.12 W	0.8 W ($-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$)
Maximum self-inductance (L_i)	110 µH	0 µH
Maximum self-capacitance (C_i)	80 nF	0 nF



DESIGN AND FEATURES

The CTOP eX is easy to fit onto the top of the valve actuator.

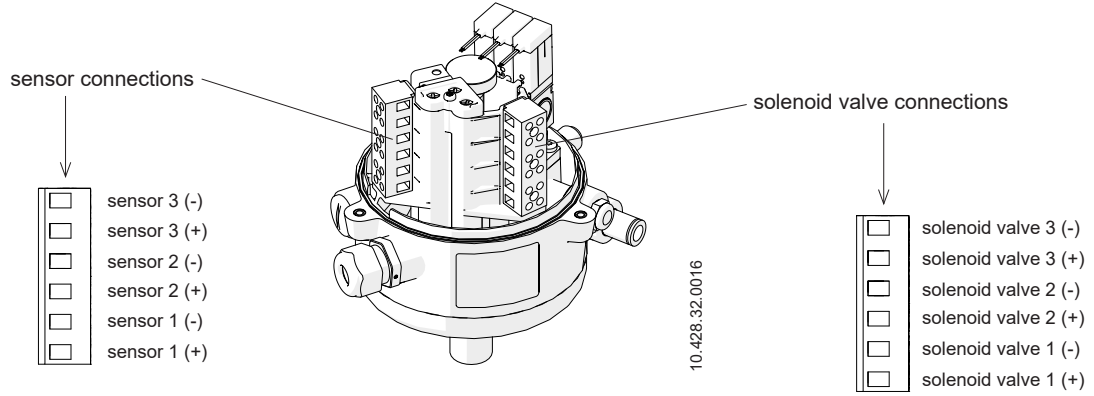
Quick and simple configuration.

Detection through feedback from NAMUR inductive sensors.

These sensors have an LED indicator for visual verification of their detection status.

COMMUNICATION

Terminal	push-in type, cable cross-section 0.2 to 0.75 mm ² (22 AWG to 18 AWG)
Main inlet	cable gland M16 x 1.5 (4 mm Ø to 10 mm Ø cable)
Outputs	NAMUR



DIMENSIONS

