

# 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**

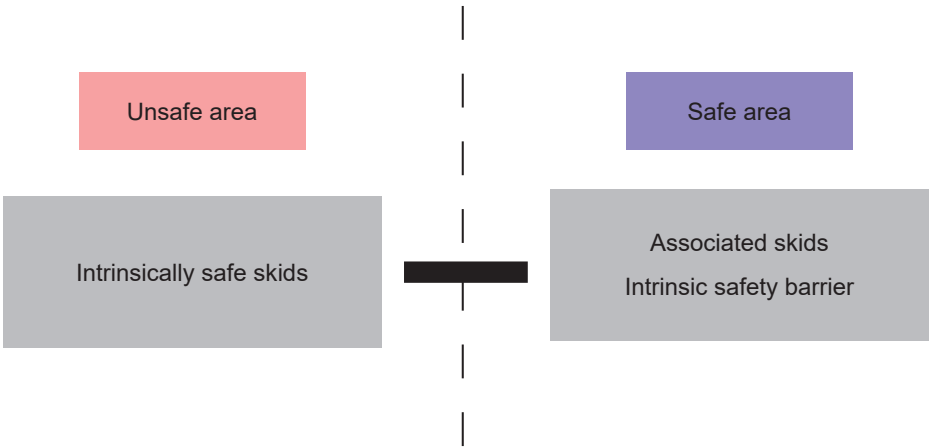
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**Electrical interface**

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	28 V
Maximum input current ( $I_i$ )	50 mA	115 mA
Maximum input power ( $P_i$ )	0.12 W	0.8 W
Maximum self-inductance ( $L_i$ )	110 µH	0 µH
Maximum self-capacitance ( $C_i$ )	145 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.

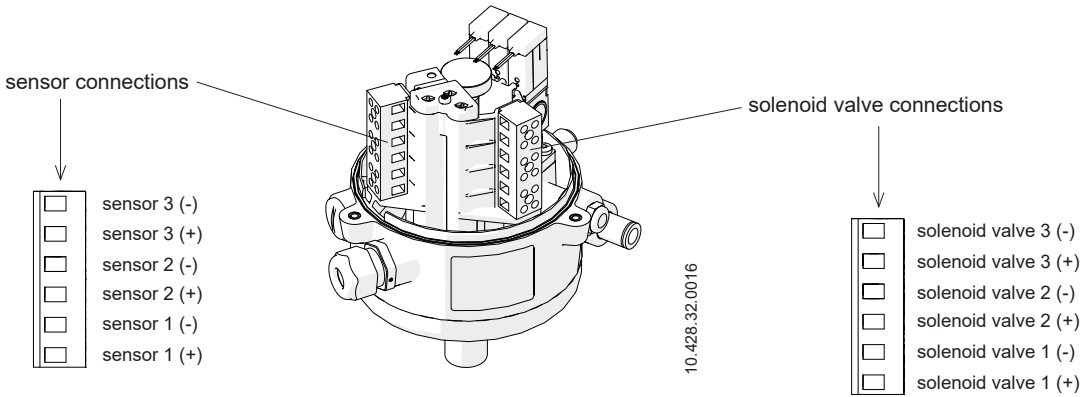
COMMUNICATION

Terminal

Main inlet

Outputs

push-in type, cable cross-section 0.2 to 0.75 mm<sup>2</sup>  
(22 AWG to 18 AWG)  
cable gland M16 x 1.5 (4 mm Ø to 10 mm Ø cable)  
NAMUR



DIMENSIONS

