

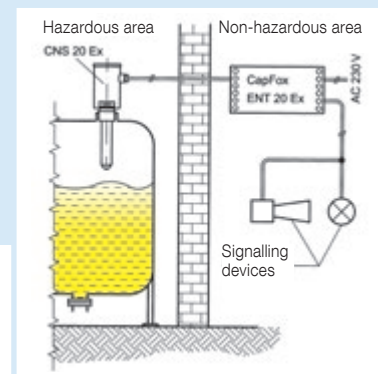
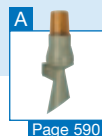
Capacitance overfill prevention system CapFox® ENT 20 Ex according to WHG



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- For corrosive media
- Compact isolation amplifier
- Can be used as an overfill prevention system according to WHG in conjunction with CNS 20 probe
- ATEX approval



Application Can be used as an overfill prevention system according to WHG in conjunction with the CNS 20 capacitance probes for electrically conductive and non-conductive media. It is especially suitable for use in corrosive media due to the (partial) PTFE insulation of the probes. The system can also be used in hazardous areas zone 0 in conjunction with the CNS 20 Ex high-temperature probe.

Description The CapFox® ENT 20 Ex isolation amplifier consists of an amplifier and a voltage-free output relay. The control circuit is intrinsically safe (Ex ia II C). CNS 20 and CNS 20 Ex probes can be connected. A green LED indicates power on. A yellow LED indicates that the level sensor has responded. In case of line interruptions or short circuits, the red LED lights up. The output relay de-energises in the case of any fault. The isolation amplifier must be installed outside of the hazardous area.

Technical specifications

Operating temperature range

Ambient: -20/+60 °C

Supply voltage

ENT 20 Ex-230 AC 230 V
ENT 20-Ex-24 DC 24 V

Power input

ENT 20 Ex-230 Approx. 1.5 W
ENT 20-Ex-24 Approx. 1.8 W

Probe circuit

According to (NAMUR) EN 60947-5

Switching output

Relay contact: 1 voltage-free changeover contact
Contact rating: AC 250 V, 4 A
DC 24 V, 4 A

Visual indication

Green LED: Power on
Yellow LED: Probe in contact with the medium
Red LED: Alarm condition

Housing

DIN rail housing
W x H x D: 40 x 70 x 110 mm

Degree of protection

IP 20 (EN 60529)

Approval

Overfill prevention system according to WHG
Technical Approval of the German Institute for Building Technology:
Z-65.13-156
TÜV 01 ATEX 1660 (Ex ia II C)

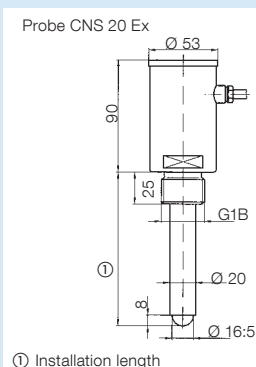
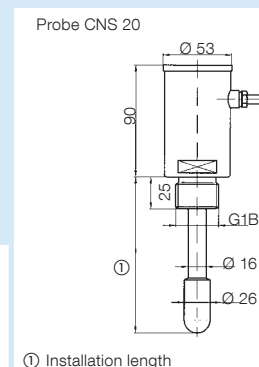
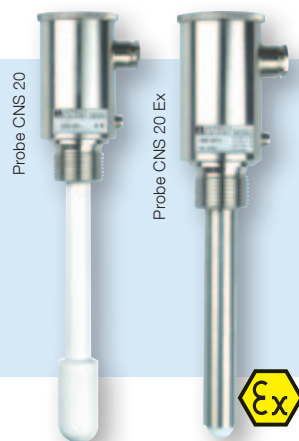


See page 44 for probes.

DG: H	Part no.	Price €
CapFox ENT 20 Ex-230 AC 230 V	53420	
CapFox ENT 20 Ex-24 DC 24 V	53425	

Probes for capacitance overflow prevention systems CapFox® ENT 20 Ex

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Description The level electrode and the pre-amplifier of the CNS 20 and CNS 20 Ex probes are integrated in a robust field housing; they are designed as sensors according to EN 60947 (NAMUR). The electrode and pre-amplifier are fully encapsulated in the housing.

The electrode is (partially) PTFE-insulated; in conjunction with a conductive tank wall or an earthed counter-electrode, it forms a capacitor whose capacitance depends on the electric characteristics of the environment. As soon as the dielectric is no longer formed by a gas (free electrode), the capacitance changes; this change is converted into a switching signal by the CapFox® ENT 20 Ex isolation amplifier.

The constant direct current supplied by the pre-amplifier to the isolation amplifier is within a given range when there are no interferences. In case of a defective probe or connection cable, this range is exceeded, the relay switches and a visual alarm is generated.

Technical specifications

Operating temperature range

CNS 20: -20/+60 °C
CNS 20 Ex: -40/+120 °C

Process pressure

CNS 20: 0/16 bar
CNS 20 Ex: 0/30 bar

Process connection

G1B as per DIN 3852-A

Installation lengths

CNS 20: 250 to 1,000 mm as required
CNS 20 Ex: 80 to 1,000 mm as required

Electrode

CNS 20: Fully PTFE-insulated,
Seal FKM (Viton)
CNS 20 Ex: Stainless steel 316 Ti
Probe tip PTFE-insulated
Seal FKM (Viton)

Switching characteristics

Contact with the medium (can be adjusted in the terminal box via potentiometer)

Housing

Robust field housing with screw cover
Stainless steel 316 Ti

Degree of protection

IP 67 (EN 60529)

Electrical connection

Cable gland PG 11

Approval

Overflow prevention system according to WHG
Technical Approval of the German Institute
for Building Technology: Z-65.13-156
CNS 20 Ex additionally:
TÜV 01 ATEX 1661 (Ex ia II C T6...T4)

DG: H	Part no.	Price €
CNS 20-250 Length 250 mm	53430	
CNS 20-400 Length 400 mm	53432	
CNS 20-600 Length 600 mm	53434	
CNS 20-800 Length 800 mm	53436	
CNS 20-1000 Length 1000 mm	53438	

DG: H	Part no.	Price €
CNS 20 Ex-80 Length 80 mm	53440	
CNS 20 Ex-200 Length 200 mm	53442	
CNS 20 Ex-400 Length 400 mm	53444	
CNS 20 Ex-600 Length 600 mm	53446	
CNS 20 Ex-1000 Length 1,000 mm	53448	