



## UK Distributor

t: +44 (0)1388 813433  
f: +44 (0)1388 813307  
sales@orangecounty.co.uk  
www.orangecounty.co.uk



# ★ OVERFILL PREVENTION ★

# THE ORIGINAL

## TYPE 76 A with NB 220 QSF

## Checks are good, monitoring is even better

### FAFNIR's PTC-resistor level sensor for flammable and non-flammable water-polluting liquids

Employee protection and safety management begin as early as the system planning phase. For many years, FAFNIR has been developing high-quality technologies to enable reliable monitoring of liquid levels in tanks and process containers. Our products are stand-alone solutions and operate independently of higher-ranking industrial controllers.

#### System components

The FAFNIR level controller comprises a level pick-up with two or three independent sensors and a corresponding number of transducers. One of these sensors can be used, either simultaneously or additionally, as an approved overfill prevention device.

The overfill prevention system interrupts the filling process or triggers a visual and audible alarm whenever the maximum permissible level is reached.

#### Typical applications are for full or empty notifications in:

1. Fuel oil tanks, daily service oil tanks, used oil tanks
2. Storage tanks, barrels, bottles

#### Economical and safe

The FAFNIR level controller is indispensable for anyone who wants to optimise work processes and meet his responsibility for health, safety and the environment.



### Advantages of FAFNIR technology

- Proven millions of times under the most demanding conditions
- Overfill prevention approval for many types of liquid
- PTC-resistor principle (no moving parts)
- PTC-resistor encapsulated in a stainless steel sleeve
- Possibility of two to three level sensors in one process connection
- Continuous verification of PTC-resistor characteristics in the NB 220 QSF (scanner function)
- Maintenance-free

” For over 45 years ...

... our overfill prevention solutions have proven our commitment to work safety, health and environmental protection.”

## Technical data

### Level sensor model 76 A (H)

#### Operating data:

Media temperature range:  
-25 °C to +50 °C; (-25 °C to +80 °C)

Ambient temperature:  
-25 °C to +80 °C

Pressure range: 0 to 2 bar

Media compatibility:  
see list of substances/materials

Switch delay:  
< 2 seconds

Protection type of housing:  
IP 67

#### Parts in contact with product:

Brass

Stainless steel

Galvanised spring steel

Vulkollan

Ultradur

#### Dimensions:

Pipe diameter:  
stainless steel 16 x 1.5 [mm]

Probe lengths:  
100 mm to 3,000 mm

### Transducer NB 220 QSF / NB 220 H

#### Operating data:

Auxiliary power supply:  
24 V, 110 V, 230 V; 50 Hz or 24 V DC

Power input: 4 VA or 6 W

Ambient temperature:  
-25 °C to +60 °C

Protection type of housing: IP 40

#### Outputs:

Potential-free changeover contact, additionally for model QSF: acknowledgeable potential-free changeover contact

AC load:  $\leq 250$  V;  $\leq 4$  A;  
 $\cos\varphi \geq 0.7$ ; max. 500 VA

DC load:  $\leq 250$  V;  $\leq 0.25$  A; max. 50 W

#### Inputs:

Acknowledge button (type QSF only):  
 $U \leq 12.6$  V DC,  $I \leq 20$  mA,  $P \leq 60$  mW

Level sensor input:  
two-wire, polarity-independent

#### Dimensions:

NB 220 QSF: H 163 x W 97 x D 62 [mm]

NB 220 H: H 110 x W 50 x D 110 [mm]

NB 220 QS: H 150 x W 75 x D 110 [mm]

## Complete line of system components

### Level sensor model 76

A: standard

B4/B6: suitable for bottles

C: with fixed connection cable

E: with plastic process connection

M: with fixed response level

N: parts in contact with product in stainless steel

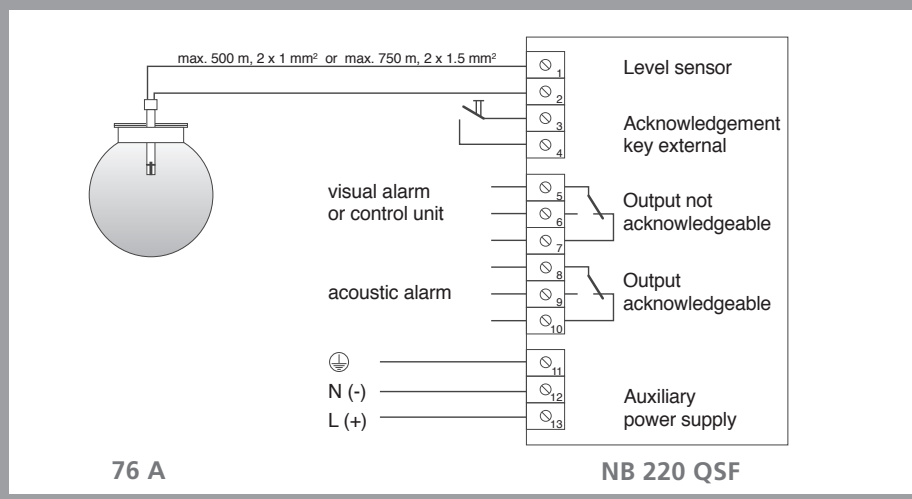
### Transducer NB 220

QSF: built-in acknowledgement unit, integrated visual and audible alarm, external alarm transmitters supported, scanner function

H: potential-free changeover contact

QS: built-in acknowledgement unit, integrated optical and acoustic alarm, external alarm transmitters supported

## Electrical connection



## List of substances

### 1. For flammable water-polluting liquids:

- Diesel/biodiesel
- EL fuel oil
- Used transmission and engine oils
- 1-hexanol
- Nitrobenzene
- Ethyl acetoacetate
- 1,2-dichlorobenzene
- 2,4-dimethylaniline (N,N-dimethylaniline)
- Acrylic acid 2-ethylhexyl ester (2-ethylhexyl acrylate)
- Cyclohexyl acetate
- Benzaldehyde
- Diethyl oxalate
- Methyl acetate
- n-octanol (n-octyl-alcohol)
- Aniline

### 2. For non-flammable water-polluting liquids:

- Unused engine, transmission and hydraulic oils
- Transformer oils
- Vegetable oils
- Anti-freeze liquids
- Oil/water mixtures (e.g. drilling and lubricating oils)
- Detergent/water mixtures
- Per- and trichloroethylene
- Urea solution

### For both groups:

All similar liquids with equivalent thermal conductivity

## Accessories

- Acknowledgement unit type QE 200
- Combination acknowledgement unit type SAM 8 for max. 8 alarm transmitters
- Horn type HPW 110
- Horn with integrated warning lamp type HR
- Rotating beacon type R4

### FAFNIR GmbH

Bahrenfelder Straße 19

22765 Hamburg, Germany

Phone: +49/40/39 82 07-0

Fax: +49/40/390 63 39

Internet: [www.fafnir.de](http://www.fafnir.de)

