



Illustration shows example

## Level switch

477.690

### KFW-DX

- Use with heavily polluted liquids
- PUR float

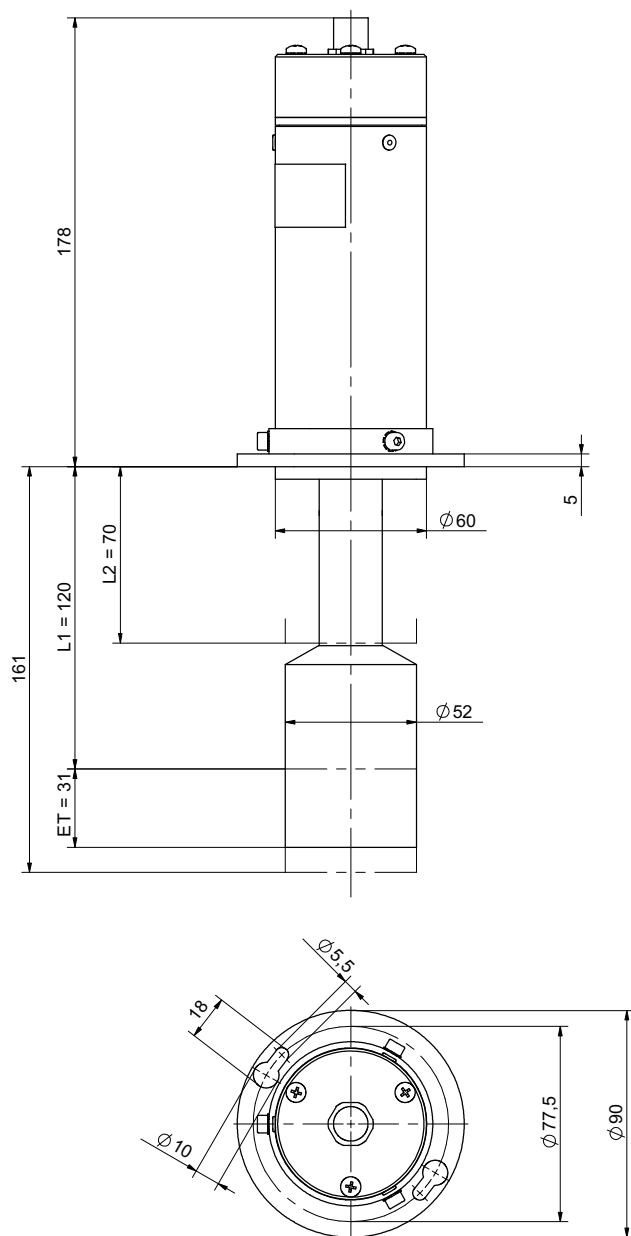
### Application:

For watching and controlling the filling levels in reservoirs containing heavily polluted liquids with or without metallic abrasions.

### Function:

Beneath the reservoir's cap there is a float in the liquid. The switching contacts and the switching magnet are situated above the reservoir's cap. The float is connected with the magnet via a pipe. Hence the movements of the float are transmitted into the upper part of the level switch.

The contacts have bistable switching characteristics. The switching function is maintained when the float crosses the switching point. The position of the contacts and functions is fixed.



ET = Immersion depth  
Float in water

## Level switch

477.690-60

## KFW-DX

### Technical data:

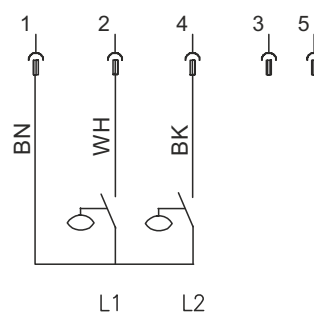
|                     |                     |
|---------------------|---------------------|
| Operating pressure: | depressurized       |
| Temperature range:  | 0 ... 90 °C         |
| Insertion position: | vertically ±20°     |
| Material            |                     |
| Float:              | PUR                 |
| Pipe:               | Al-alloy            |
| Flange:             | Al-alloy            |
| Male Z5N:           | M12x1, 5-pin        |
| Protection class:   | DIN EN 60529 IP67   |
| Switching voltage:  | max. 30 VDC         |
| Switching current:  | max. 0,5 A          |
| Switching capacity: | max. 40 / 40 W / VA |
| Weight:             | approx. 1,1 kg      |

For direct current with inductive load, a protective circuit is required at the consumer (diode, RC element, varistor).

### Wiring diagram Z5N

Male M12x1, 5-pin

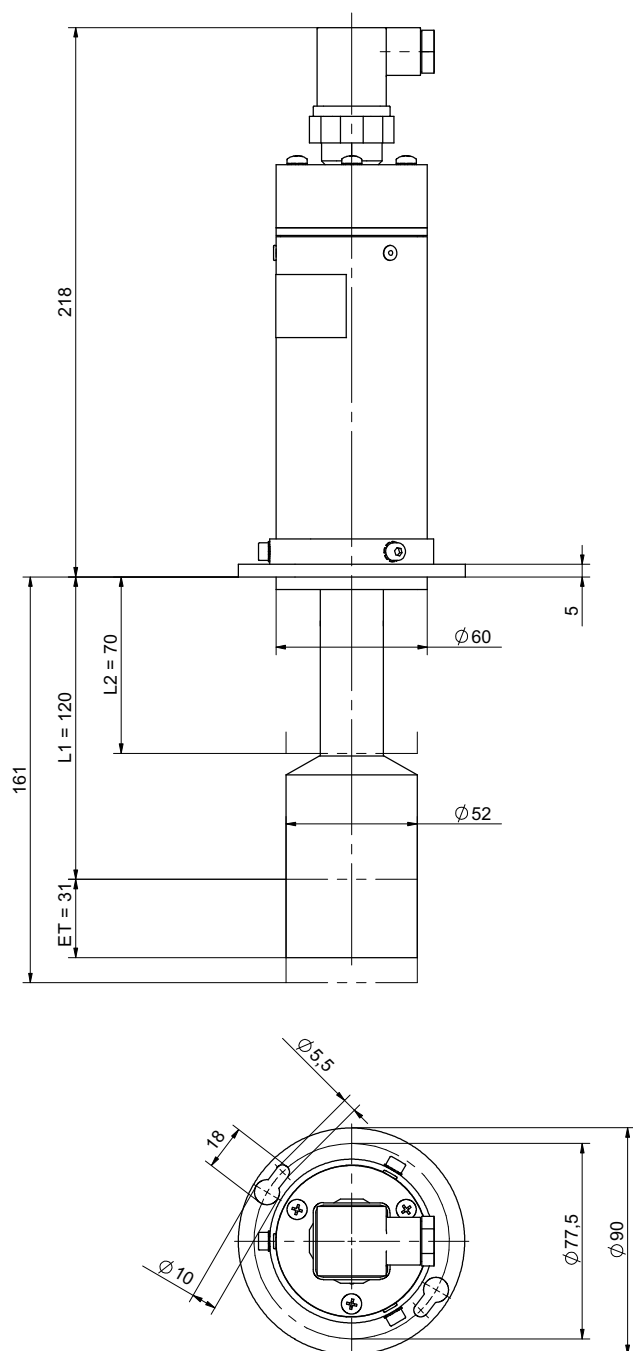
two functions



Function: Float on top

Order no.

Level switch **477.690-60**  
KFW-DX/50/C/S/S/Z5N/120/70



ET = Immersion depth  
Float in water

## Level switch

477.690-61

## KFW-DX

### Technical data:

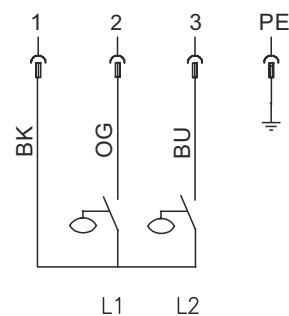
|                     |                            |
|---------------------|----------------------------|
| Operating pressure: | depressurized              |
| Temperature range:  | 0 ... 90 °C                |
| Insertion position: | vertically $\pm 20^\circ$  |
| Material            |                            |
| Float:              | PUR                        |
| Pipe:               | Al-alloy                   |
| Flange:             | Al-alloy                   |
| Male Z3:            | DIN EN 175301-803, shape A |
| Protection class:   | DIN EN 60529 IP65          |
| Switching voltage:  | max. 10 ... 230 VUC        |
| Switching current:  | max. 0,5A                  |
| Switching capacity: | max. 40 / 40 W / VA        |
| Weight:             | approx. 1 kg               |

For direct current with inductive load, a protective circuit is required at the consumer (diode, RC element, varistor).

### Wiring diagram Z3

Male DIN EN 175301-803,  
shape A, 3-pin + PE

two functions



Function: Float on top

Order no.

Level switch

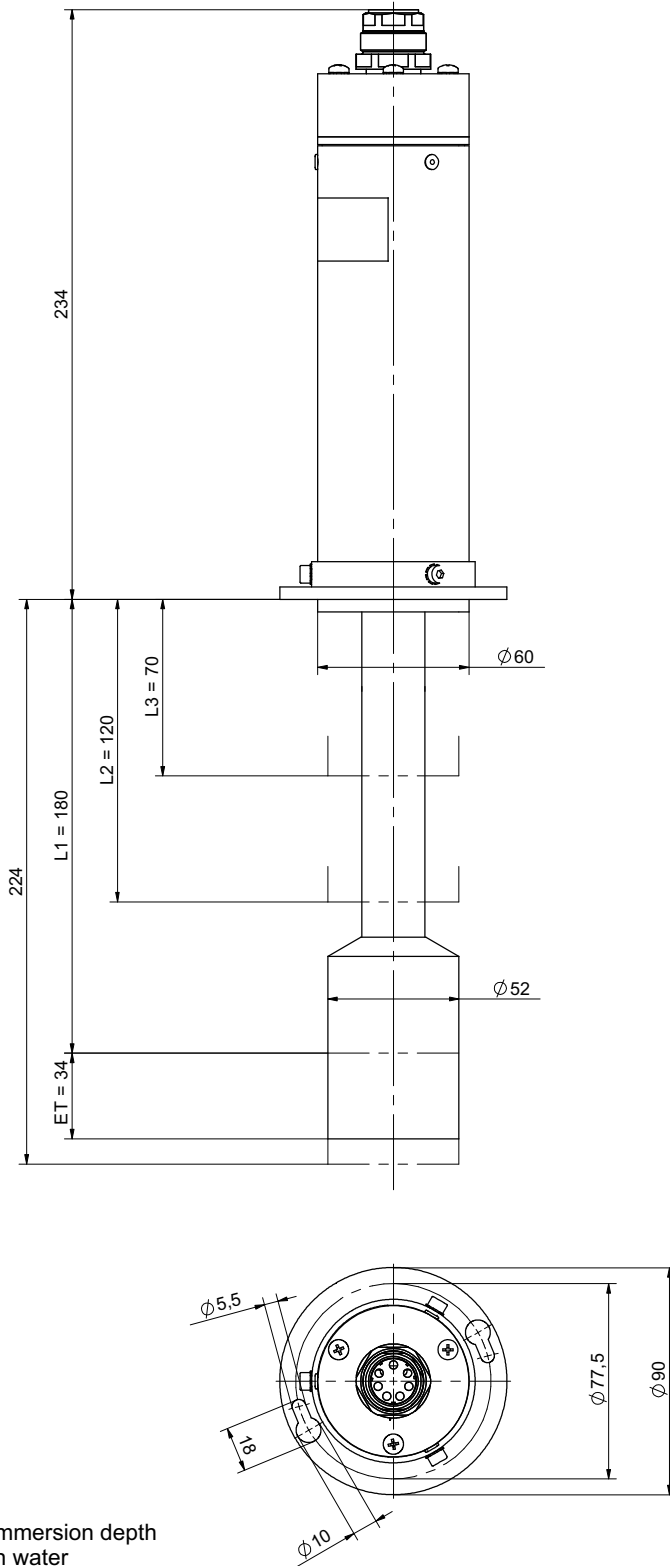
477.690-61

KFW-DX/50/C/S/S/Z3/120/70



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## Level switch

477.690-62

## KFW-DX

### Technical data:

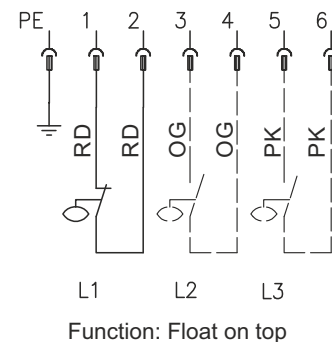
|                     |                           |
|---------------------|---------------------------|
| Operating pressure: | depressurized             |
| Temperature range:  | 0 ... 90 °C               |
| Insertion position: | vertically $\pm 20^\circ$ |
| Material            |                           |
| Float:              | PUR                       |
| Pipe:               | Al-alloy                  |
| Flange:             | Al-alloy                  |
| Male Z6BN:          | DIN EN 175201-804         |
| Protection class:   | DIN EN 60529 IP65         |
| Switching voltage:  | max. 10 ... 230 VUC       |
| Switching current:  | max. 0,5 A                |
| Switching capacity: | max. 40 / 40 W / VA       |
| Weight:             | approx. 0,8 kg            |

For direct current with inductive load, a protective circuit is required at the consumer (diode, RC element, varistor).

### Wiring diagram Z6BN

Male DIN EN 175201-804,  
6-pin + PE

three functions

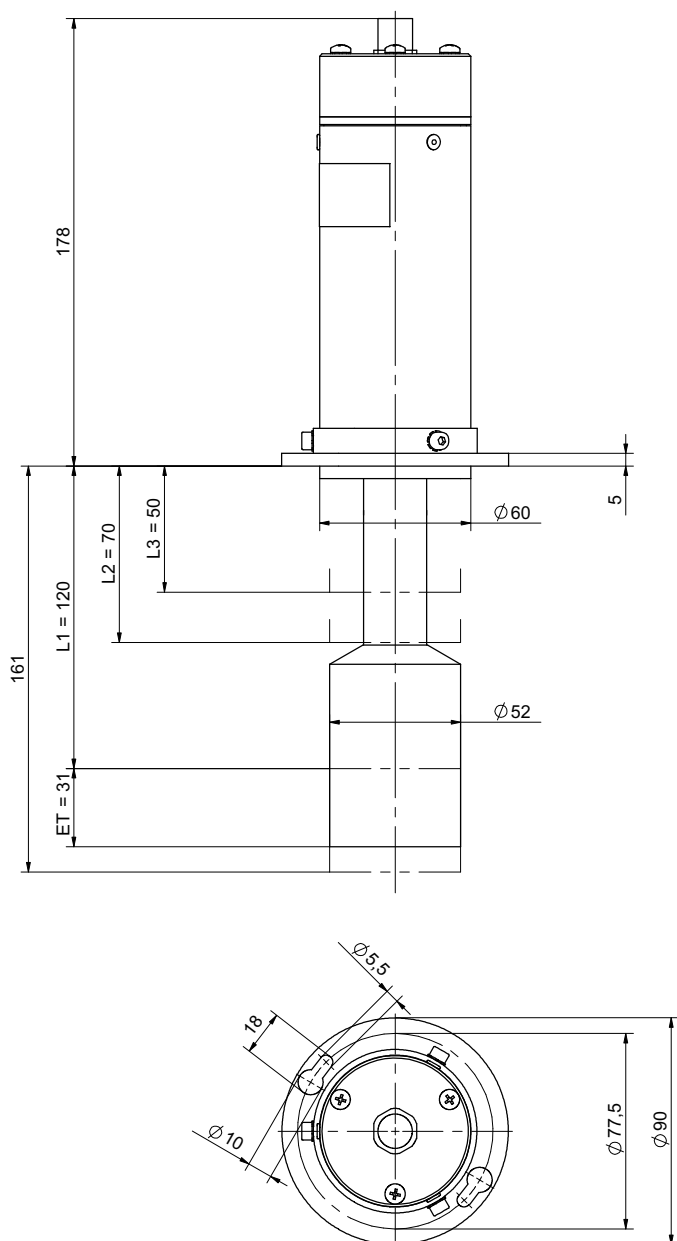


Order no.

## Level switch

477.690-62

KFW-DX/110/C/0/S/S/Z6BN/180/120/70



ET = Immersion depth  
Float in water

## Level switch

477.690-63

## KFW-DX

### Technical data:

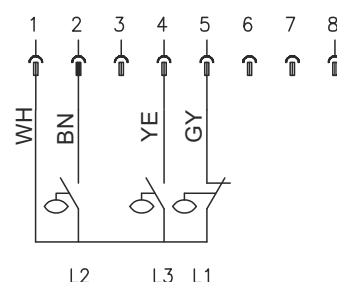
|                     |                     |
|---------------------|---------------------|
| Operating pressure: | depressurized       |
| Temperature range:  | 0 ... 90 °C         |
| Insertion position: | vertically ±20°     |
| Material            |                     |
| Float:              | PUR                 |
| Pipe:               | Al-alloy            |
| Flange:             | Al-alloy            |
| Male Z8N:           | M12x1, 8-pin        |
| Protection class:   | DIN EN 60529 IP67   |
| Switching voltage:  | max. 30 VDC         |
| Switching current:  | max. 0,5 A          |
| Switching capacity: | max. 40 / 40 W / VA |
| Weight:             | approx. 0,8 kg      |

For direct current with inductive load, a protective circuit is required at the consumer (diode, RC element, varistor).

### Wiring diagram Z8N

Male M12x1, 8-pin

three functions



Function: Float on top

Order no.

Level switch

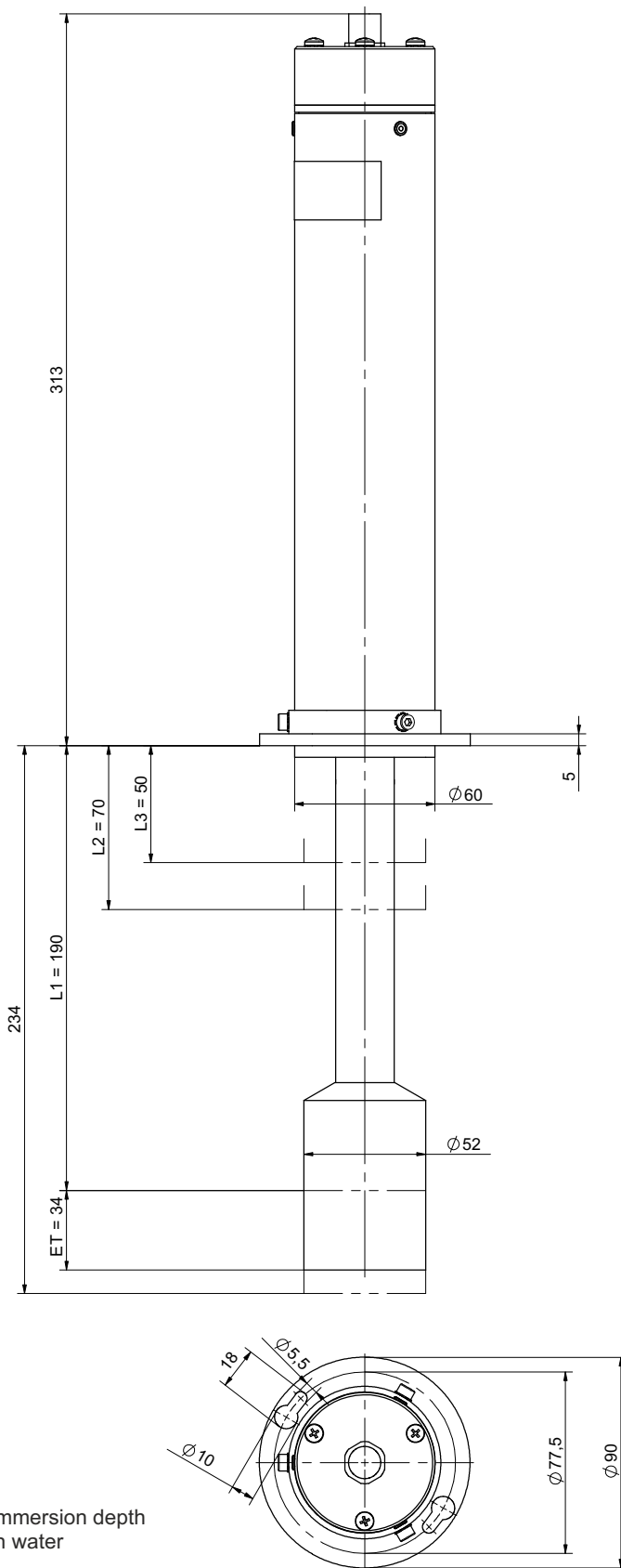
477.690-63

KFW-DX/50/C/0/S/S/Z8N/120/70/50



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## Level switch

477.690-64

## KFW-DX

### Technical data:

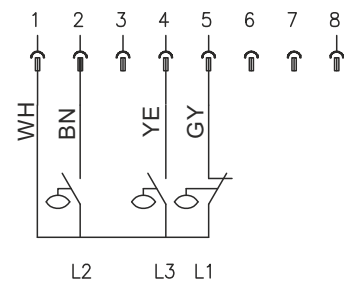
|                     |                     |
|---------------------|---------------------|
| Operating pressure: | depressurized       |
| Temperature range:  | 0 ... 90 °C         |
| Insertion position: | vertically ±20°     |
| Material            |                     |
| Float:              | PUR                 |
| Pipe:               | Al-alloy            |
| Flange:             | Al-alloy            |
| Male Z8N:           | M12x1, 8-pin        |
| Protection class:   | DIN EN 60529 IP67   |
| Switching voltage:  | max. 30 VDC         |
| Switching current:  | max. 0,5 A          |
| Switching capacity: | max. 40 / 40 W / VA |
| Weight:             | approx. 0,8 kg      |

For direct current with inductive load, a protective circuit is required at the consumer (diode, RC element, varistor).

### Wiring diagram Z8N

Male M12x1, 8-pin

three functions



Function: Float on top

Order no.

## Level switch

477.690-64

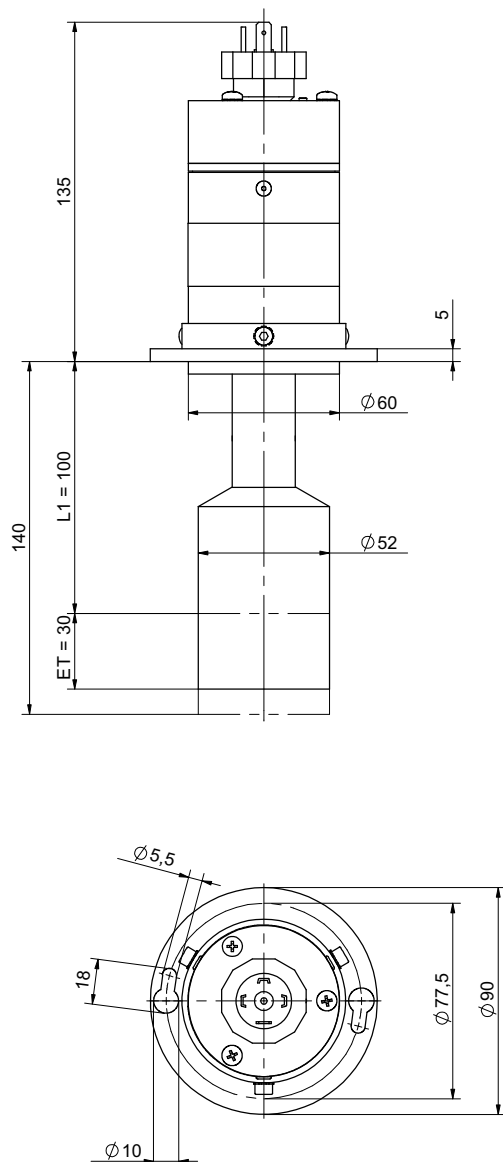
KFW-DX/200/C/0/S/S/Z8N/190/70/50



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- Subject to modifications -



ET = Immersion depth  
Float in water

## Level switch

477.690-65

## KFW-DX

### Technical data:

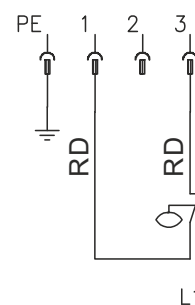
|                     |                            |
|---------------------|----------------------------|
| Operating pressure: | depressurized              |
| Temperature range:  | 0 ... 90 °C                |
| Insertion position: | vertically $\pm 20^\circ$  |
| Material            |                            |
| Float:              | PUR                        |
| Pipe:               | Al-alloy                   |
| Flange:             | Al-alloy                   |
| Male Z3N:           | DIN EN 175301-803, shape A |
| Protection class:   | DIN EN 60529 IP65          |
| Switching voltage:  | max. 10 ... 230 VUC        |
| Switching current:  | max. 0,5 A                 |
| Switching capacity: | max. 40 / 40 W / VA        |
| Weight:             | approx. 0,6 kg             |

For direct current with inductive load, a protective circuit is required at the consumer (diode, RC element, varistor).

### Wiring diagram Z3N

Male DIN EN 175301-803,  
shape A, 3-pin + PE

one function



Function: NO contact at min.

Order no.

Level switch  
KFW-DX/C/0/Z3N/100

477.690-65

Level switch KFW-DX

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Data sheet

P0534 EN

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- Subject to modifications -