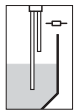


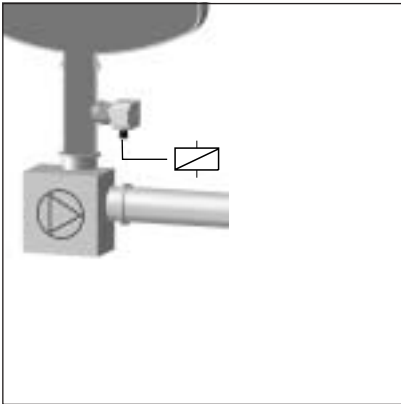
## Switching - Conductive

Overview	127
VEGAKON 61, 66	128
EL 1 ... EL 8	130
VEGATOR level switches	135
Dimensions	136



## Application examples: Conductive level detection

### Level detection with compact instrument

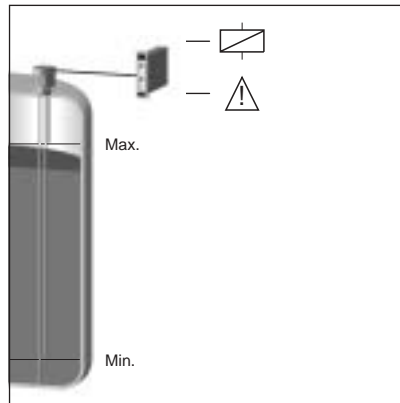


Measuring system with VEGAKON compact level switch

A measuring system consists of:

- a VEGAKON compact level switch with integrated oscillator

### Level detection with separate processing



Measuring system with multiple rod electrode and signal conditioning instrument

A measuring system consists of:

- a single or multiple rod electrode or a single or multiple cable electrode
- one or several VEGATOR level switches



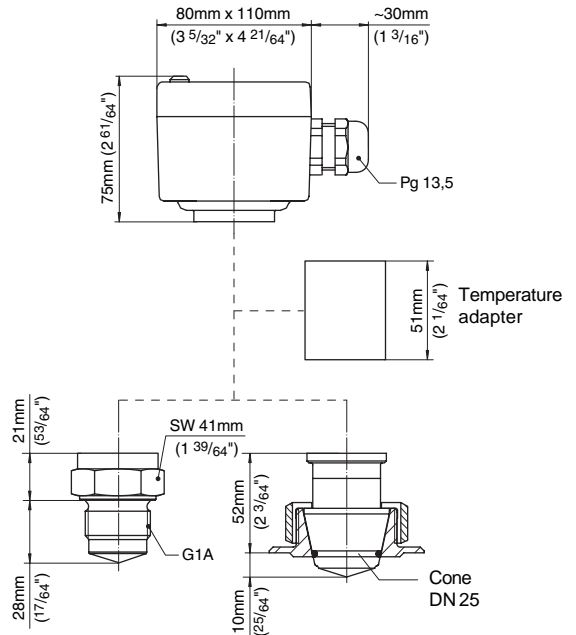
## VEGAKON 61

### Compact, conductive level switch for front-flush mounting

For use as overflow or dry run protection system in conductive liquids preferably in pipelines

- automatic adjustment to the product
- product-independent switching point
- insensitive to buildup
- wear and maintenance-free

Conductivity : from 7.5  $\mu$ S/cm  
Annular electrode : of 316Ti with PTFE insulation



### Approval

**X** Without .....

### Process fitting

**G1** Thread G1A PN25 .....

**K1** Cone DN25PN25 .....

### Electronics

**R** Relay output 20...72VDC/20...250VAC(3A) .....

**T** Floating transistor (NPN/PNP) 10...55VDC .....

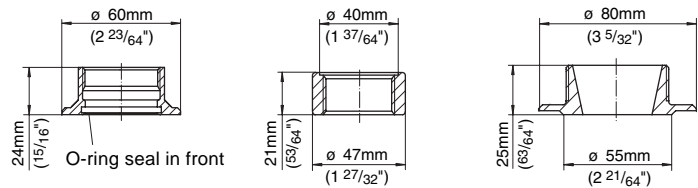
### Process temperature

**X** -40...100°C .....

**Z** -40...150°C (with temperature adapter) .....

KON61

## Welded socket VEGAKON



### suitable for

**1** VEGAKON 61 .....

**3** VEGAKON 63 .....

### Version / Material

**GA** Thread G1A / 316L .....

**GL** Thread G1A suitable f. foodstuffs / 316L .....

### Test certificate

**X** without .....

ESTKN.

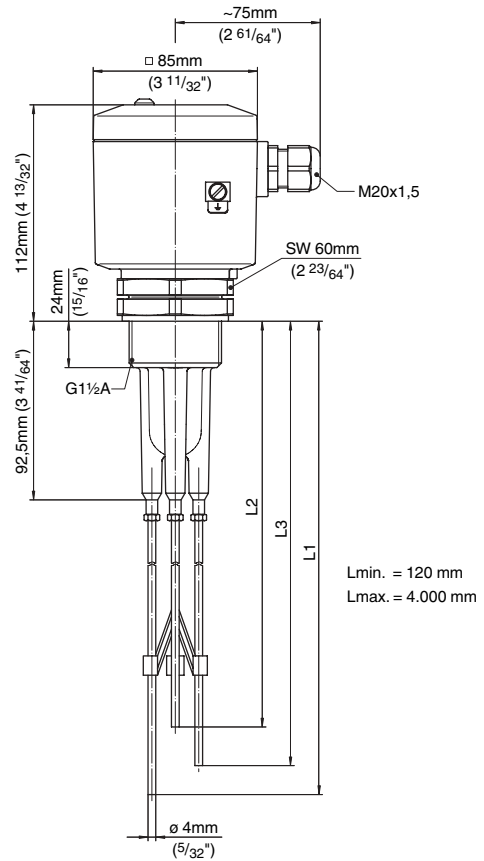
## VEGAKON 66

### Conductive multiple rod level switch

For use as overflow, dry run protection or pump control system in conductive liquids

- easy adjustment without product
- product-independent switching point
- inexpensive
- wear and maintenance-free

Process pressure : -1...6 bar (-100...600 kPa)  
 Process temperature : -40...100°C  
 Conductivity : from 0.5 µS/cm



#### Approval

**X** Without .....

#### Process fitting / Material

**G** Thread G1½A / PBT .....

#### Number of rod electrodes

**2** 2 rod electrodes .....

**3** 3 rod electrodes .....

#### Material rod electrodes

**V** 316Ti .....

#### Housing / Protection

**P** Plastic PBT / IP66 .....

**M** Aluminium plastic-coated / IP66/IP67 .....

#### Electronics

**R** Double relay (DPDT) 20...72VDC/20...250VAC(5A) .....

**T** Floating transistor (NPN/PNP) 10...55VDC .....

**KON66**

#### Rod length L1 in mm (longest electrode)

per 500 mm of 316Ti

#### Rod length L2 in mm (shortest electrode)

per 500 mm of 316Ti

#### Rod length L3 in mm

per 500 mm of 316Ti

Rod length L1:  mm (longest electrode) min. 120 mm, max. 4000 mm

Rod length L2:  mm (shortest electrode) min. 120 mm, max. 4000 mm

Rod length L3:  mm min. 120 mm, max. 4000 mm

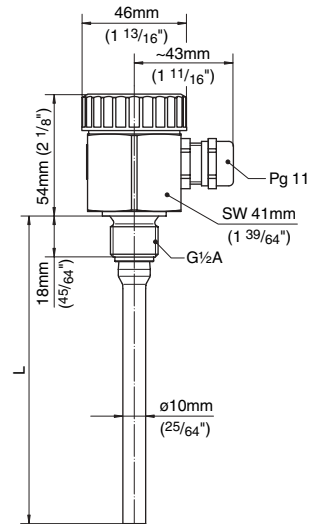
## EL 1

### Conductive, PTFE partly insulated rod electrode

For use as overflow or dry run protection system in conductive liquids

- easy setup
- rugged and maintenance-free
- electrode can be shortened

Process fitting : G $\frac{1}{2}$ A of 316Ti  
 Housing : of 316Ti with cover of PBT; (IP66/IP67)  
 Process pressure : -1...63 bar (-100...6300 kPa)  
 Process temperature : -50...130°C  
 Evaluation : via VEGATOR signal conditioning instrument



### Approval

- .X without .....
- EX.X ATEX II 1G, 1/2G, 2G EEx ia IIC T6 .....
- EX.M ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + Ship approval .....
- EX.A ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG .....

- .M Ship approval .....

### Number of rods

- 1 with 1 rod electrode .....

### Material rod

- VT 316Ti .....
- HT Hastelloy C4 .....

### Line break monitoring

- X without<sup>1)</sup> .....
- L with line break monitoring<sup>2)</sup> .....



<sup>1)</sup> Only in conjunction with VEGATOR 256C signal conditioning instrument  
<sup>2)</sup> Not in conjunction with VEGATOR 256C signal conditioning instrument

### Rod length in mm

per 250 mm of 316Ti  
 per 250 mm of Hastelloy C4

Electrode length L:  mm (min. 40 mm, max. 4000 mm)

Other insulation length L1:  mm (min. 40 mm, max. 4000 mm)

- Welded sockets see chapter "Information"



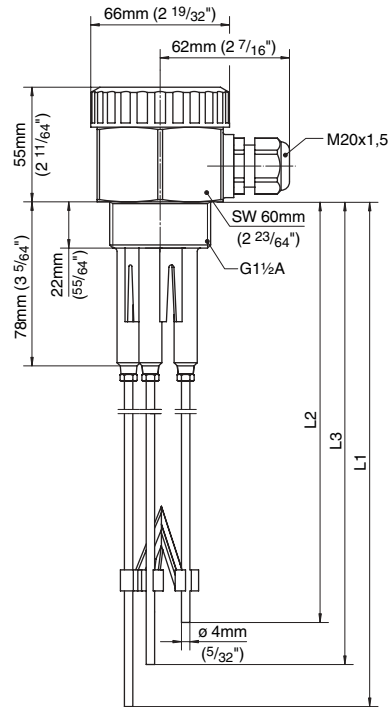
## EL 4

### Conductive, PP partly insulated multiple rod electrode

For use as overfill, dry run or pump control system

- easy setup
- electrodes can be shortened

Process fitting : G1½ A of PP  
 Housing : of PP; IP66/IP67  
 Process pressure : -1...6 bar (-100...600 kPa)  
 Process temperature : -20...100°C  
 Evaluation : via VEGATOR signal conditioning instrument



### Approval

**.X** without .....

**.M** Ship approval .....

### Number of rods

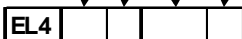
- 1** with 1 rod electrode .....
- 2** with 2 rod electrodes .....
- 3** with 3 rod electrodes .....
- 4** with 4 rod electrodes .....
- 5** with 5 rod electrodes .....

### Material rod

- VTK** 316Ti .....
- HTK** Hastelloy C4 .....

### Line break monitoring

- X** without<sup>1)</sup> .....
- L** with line break monitoring<sup>2)</sup> .....



<sup>1)</sup> Only in conjunction with VEGATOR 256C signal conditioning instrument

<sup>2)</sup> Not in conjunction with VEGATOR 256C signal conditioning instrument

### L1 in mm (longest)

per 500 mm of 316Ti  
 per 500 mm of Hastelloy C4

### L2 in mm (shortest)

per 500 mm of 316Ti  
 per 500 mm of Hastelloy C4

### L3 in mm

per 500 mm of 316Ti  
 per 500 mm of Hastelloy C4

### L4 in mm

per 500 mm of 316Ti  
 per 500 mm of Hastelloy C4

### L5 in mm

per 500 mm of 316Ti  
 per 500 mm of Hastelloy C4

- Welded sockets see chapter "Information"



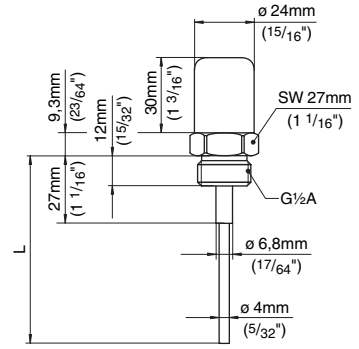
**EL 8**

**Conductive, PE partly insulated rod electrode**

For use as overflow and dry run protection system in conductive liquids

- easy setup
- inexpensive level detection
- electrode can be shortened

Process fitting : G $\frac{1}{2}$ A of 304  
 Housing : of PE; IP50  
 Process pressure : -1...6 bar (-100...600 kPa)  
 Process temperature : -10...60°C  
 Evaluation : via VEGATOR signal conditioning instrument



**Number of rods**

1 with 1 rod electrode .....

**Rod material**

VEG 316Ti .....

**EL8**

**Rod length in mm**

per 250 mm of 316Ti

Electrode length:  mm (min. 30 mm, max. 1000 mm)

- Welded sockets see chapter "Information"



## VEGATOR 256C

### Signal conditioning instrument for level signalling for carrier rail mounting

For easy level detection or pump control in conjunction with conductive electrodes EL

- 1-channel version
- mounting on carrier rail 35 x 7.5 according to EN 50022
- adjustable response sensitivity (max. 200 kOhm)



Sensor input : 1 conductive electrode  
 : 1 x Min/Max  
 Relay output : 1 x spdt  
 Protection : IP20



#### Operating voltage

- E 24VAC .....
- D 42VAC .....
- C 48VAC .....
- B 100...130VAC .....
- A 200...250VAC .....

TOR256C.X



## VEGATOR 631

### Signal conditioning instrument for level signalling

For easy level detection or pump control in conjunction with conductive electrodes EL

- 1-channel version
- with fault monitoring and failure LED
- adjustable response sensitivity (max. 200 kOhm)
- mounting on carrier rail 35 x 7.5 according to EN 50022



Sensor input : 1x conductive electrode  
 : 1 x Min/Max  
 Relay output : 1 x spdt  
 Transistor output : 1 x  
 Protection : IP20  
 Operating voltage : 20...250V AC, 20...72V DC

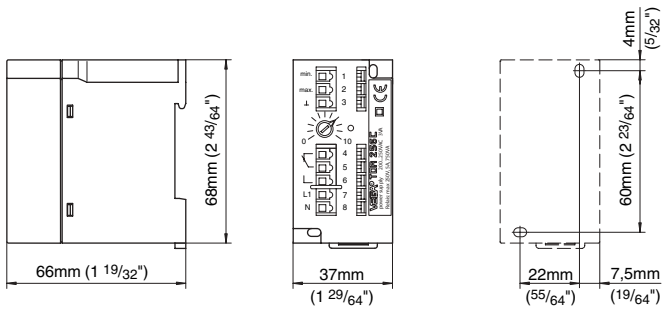


#### Approval

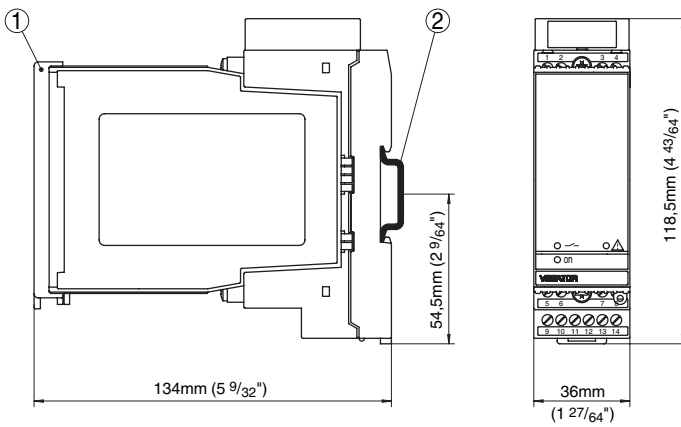
- .X Without .....
  - EX.A ATEX II (1) G [EEx ia] IIC + WHG .....
  - .M Ship approval .....
- Plug-in socket**
- K Inclusive plug-in socket .....

TOR631

## VEGATOR 256C



## VEGATOR 631 Ex



- 1 Transparent cover
- 2 Carrier rail 35x7.5 or 35x15 according to EN 50022

- Accessory see chapter “Signal conditioning instruments and communication“