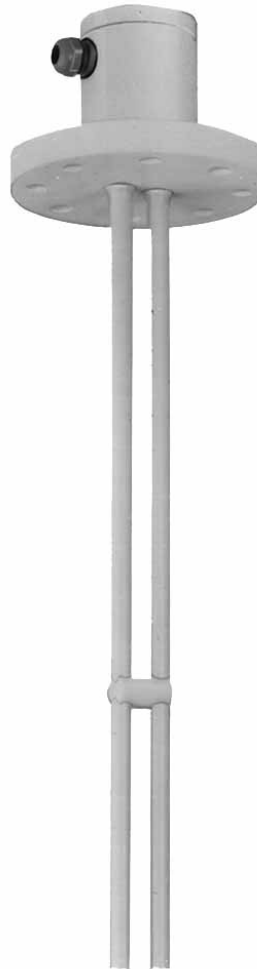


Capacitance Limit Detection *Double Rod Probe 11 304 Z*

**PTFE fully insulated rod probe for plastic vessels.
Certification from DIBt as overspill protection
alarm to VAwS (§ 19 WHG).**



Application

The double rod probe 11 304 Z is used in aggressive liquids, particularly in plastic tanks or baths, where there is no counter-potential for capacitance limit detection.

The measuring system includes a capacitance limit switch Nivotester FTC 470 Z, 471 Z.

Features and Benefits

- The second rod removes the need for a separate counter-electrode inside or outside the tank, thus reducing cost.
- The electronic insert is applicable over a wide temperature range.
- The high frequency signal, proportional to level, is converted into a remotely transmitted signal.

Measuring System

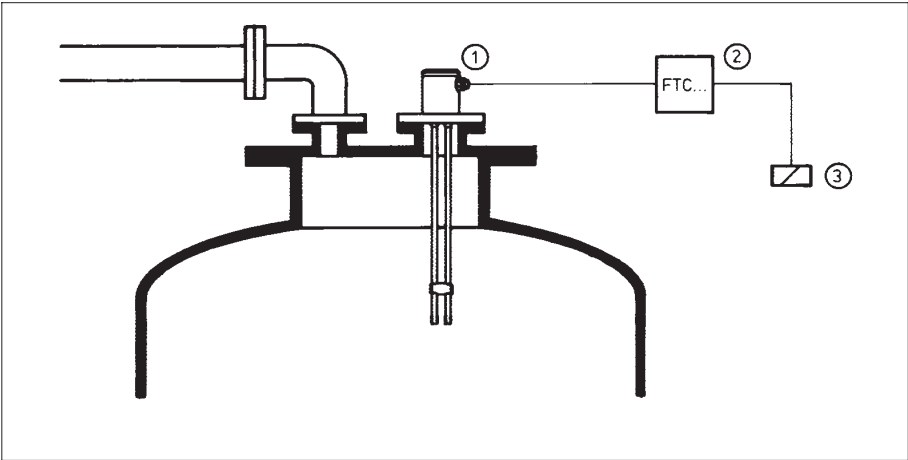
The measuring system comprises the following parts (see Fig.):

- ① Double rod probe 11 304 Z with electronic insert EC 17 Z in probe housing

- ② Capacitance limit switch Nivotester FTC 470 Z, 471 Z
- ③ Signal and control instruments (e. g. klaxon, solenoid valve).

Measuring system.

The electronic insert is a transmitter that converts the high frequency signal, proportional to level, into a remotely transmitted signal, e. g. a pulse frequency signal transmitted over standard screened two-core installation cable.



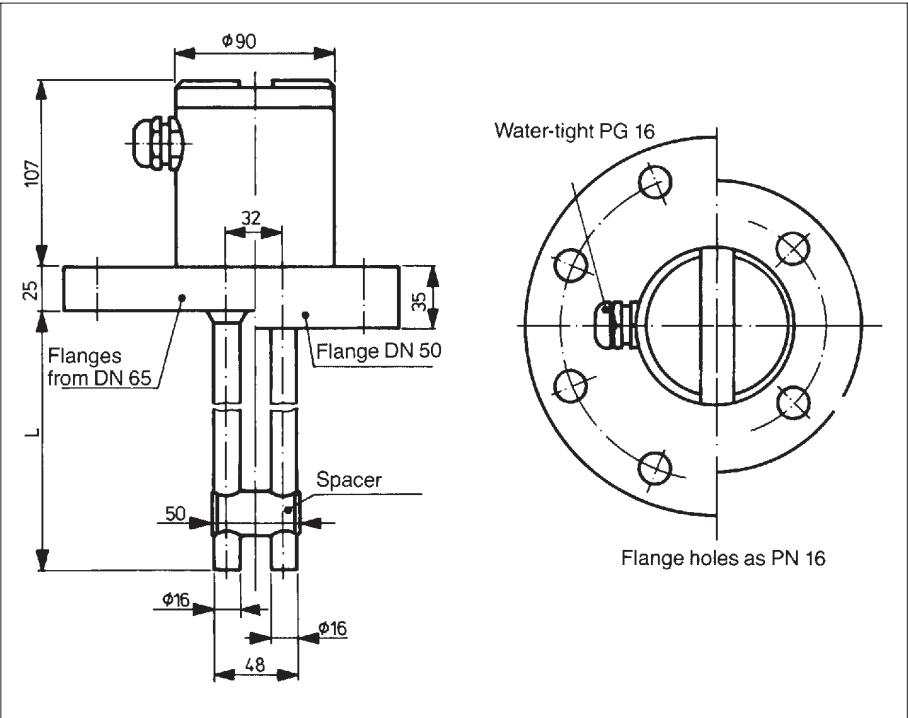
Installation

- Probes of length up to 500 mm are suitable for side and top mounting.
- Larger probes should always be installed vertically.
- A support should be provided for long probes.

Caution!
The probes must not be shortened. This would impair their performance and chemical resistance. Please order the exact length required.

Dimensions

Dimensions of probe 11 304 Z
Flanges to DIN 2527



Electrical Connection

The electronic insert EC... can be directly fitted in the probe housing. One rod is connected with the centre contact of the electronic insert; the other is connected via the black wire to terminal 6 of the electronic insert.



Connection of the electronic insert EC... in the probe housing

How to Order

Double rod probe 11 304 Z

Certificates

R Standard (not certified)

W WHG

To be connected to

C FTC 470 Z/471 Z, EC 17 Z

X No specific instrument

Y Special version on request

Process connection/material

The DIN flanges are drilled like PN 16.

The ANSI flanges are drilled like 150 psi.

01 Flange DN 50/PP

11 Flange DN 50/PE

21 Flange DN 50/PVC

31 Flange DN 50/PTFE

03 Flange DN 80/PP

13 Flange DN 80/PE

23 Flange DN 80/PVC

33 Flange DN 80/PTFE

04 Flange DN 100/PP

14 Flange DN 100/PE

24 Flange DN 100/PVC

34 Flange DN 100/PTFE

41 Flange ANSI 2"/PP

51 Flange ANSI 2"/PE

61 Flange ANSI 2"/PVC

71 Flange ANSI 2"/PTFE

43 Flange ANSI 3"/PP

53 Flange ANSI 3"/PE

63 Flange ANSI 3"/PVC

73 Flange ANSI 3"/PTFE

44 Flange ANSI 4"/PP

54 Flange ANSI 4"/PE

64 Flange ANSI 4"/PVC

74 Flange ANSI 4"/PTFE

99 Special version on request

Rod material

A Rod steel PTFE insulated

B Rod 1.4571 PTFE insulated

Y Special material on request

Length of probe

1 ... mm (freely selectable, 100...4000 mm)

9 Special length on request

Housing

K Polyester E housing IP 66, Pg 16 (IP 66)

Y Special version on request

Electronic insert

A without

C EC 17 Z installed

Y Special version on request

Please state length required when placing an order.

Probe length L mm

11 304 Z

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Technical Data

Operating pressure p_e	-0,2...+1,1 bar	-1...+6 bar	on request
Operating temperature	-20...+60 °C	+20 °C	on request
Flange dimension	any	DN 50, ANSI 2"	larger flanges
DIBt approval to § 19 WHG	yes	no	—

Capacitance of gland	approx. 50 pF
Capacitance probe to probe	approx. 22 pF/m in air, approx. 180 pF/m in water
Probe length L	min. 100 mm, max. 4000 mm
Flange material and sizes	see "How to Order"
Rod probe material	steel or stainless steel 1.4571
Rod probe insulation	2 mm PTFE (polytetrafluoroethylene)
Spacer	PTFE (polytetrafluoroethylene)
Number of spacers	1 per 500 mm probe length
Housing	PE (polyethylene)
O-ring seal in lid	NBR (rubber)
Cable entry Pg 16	PA (polyamide) with rubber seal for cable diameter 5.5...13 mm
Housing protection type to DIN 40 050	IP 66

Accessory

- ☐ Metal ring for flange, if the probe housing is installed in explosion-hazardous area Zone 1

Supplementary Documentation

- ☐ Electronic Insert EC 17 Z
Technical Information TI 268F/00/en

Ordering Information

- ☐ Order code
- ☐ Probe length
- ☐ Accessories

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