

Level Transmitter

Construction

The GEMÜ 902 level transmitter has an immersion tube with reed contacts and a float with an integrated permanent magnet, a threaded adapter or DIN/ANSI flanges for tank mounting. The electrical connection is either via ready-made cable or connector.

Features

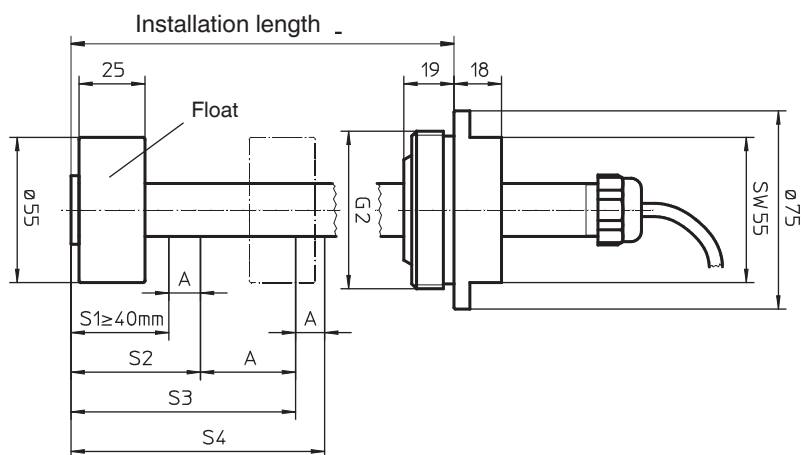
- Working and limiting contacts for MIN or MAX level
- Float principle, simple handling
- Direct reading of medium level
- Variable mounting positions

Advantages

- The device is used for monitoring liquid levels of inert and corrosive* media
- For applications with open tanks and tanks under pressure
- Materials: Choice of PVC-U, PP, PVDF, stainless steel
- Weight-saving construction

* see information on working medium on page 2

Dimensions - GEMÜ 902 [mm]



A ≥ 40 mm
S4 $\leq L-60$ mm

S1	Min. limiting contact
S2	Min. working contact
S3	Max. working contact
S4	Max. limiting contact

further dimensions see page 4



Technical data

Working medium

Corrosive and inert liquid media which have no negative impact on the physical and chemical properties of the medium wetted parts

Operating conditions

Permissible ambient temperature -10...+60° C *

Permissible medium temperature

Tube / float material PVC-U +5...+60° C *
 Tube / float material PVDF -10...+80° C *
 Tube / float material PP -10...+80° C *
 Tube / float material stainless steel 1.4435 -10...+80° C *

Permissible working pressure

PVC-U, PP, PVDF, stainless steel max. 6 bar *

*) see table

Output signal

Limiting contact (monostable, limitation by mechanical stop)

Peak current 0.5 A
 Max. continuous current 0.2 A
 Max. contact load 8 W

Working contact (bistabile)

Peak current 0.5 A
 Max. continuous current 0.2 A
 Max. contact load 8 W

Accuracy

Switch point ± 3 mm
 Hysteresis ± 2 mm

Materials

Medium wetted parts

Choice of PVC-U, PP, PVDF, stainless steel 1.4435

Cable connection

Cable gland PVDF / packing rubber PVC

Connection housing

Housing ABS
 Cover PMMA
 Protective cap for screws PVDF
 Adapter ABS or st. st. 1.4435
 Socket PA 6
 Plug screw VQSt 36-2-4-8
 Profile packing Nitrile rubber
 Fastening screw 1.4303

Mounting flange

DIN PVC-U, PP, PVDF, st. st. 1.4571
 ANSI PVC-U, PP, PVDF, st. st. 1.4571
 G 2" PVC-U, PP, PVDF, st. st. 1.4571

Electrical connections

Cable connection

PG 13.5 with LIYY 3x0.38 mm² cable

Connection housing design A

2 pcs. 3-pole socket
 Design A DIN EN 175301-803
 recommended cable diameter 8-10 mm

Connection housing design B

1 pc. 3-pole socket
 Design A DIN EN 175301-803
 recommended cable diameter 8-10 mm

Mounting notes

Protection class IP 65 in connection range

Mounting position vertical

Mass PP for a 1 m length 0.3 kg

Mass PVDF for a 1 m length 0.5 kg

Mass PVC-U for a 1 m length 0.4 kg

Mass st. st. for a 1 m length 1.8 kg

Switching voltage

Rated voltage $U_v \leq 40$ V DC

Pressure / temperature correlation for plastic

Temperature in °C (plastic body)		-20	-10	±0	5	10	20	25	30	40	50	60	70	80	90	100
Valve body material		permissible operating pressure in bar														
PVC-U	Code 1	-	-	-	6.0	6.0	6.0	6.0	4.8	3.6	2.1	0.9	-	-	-	-
PP	Code 5	-	-	-	6.0	6.0	6.0	6.0	5.1	4.2	3.3	2.4	1.6	0.9	0.5	-
PVDF	Code 20	-	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.8	4.3	3.8	3.2	2.8	2.2	1.0

Order data

Mounting flange	Code
ANSI flange	AF
DIN flange	DF
Thread G2	G2
Clamp sleeve G2 (only in combination with cable gland K1 - K3)	SH

Connection	Code
Cable gland, wire length 1m	K1
Cable gland, wire length 3m	K2
Cable gland, wire length 6m	K3
Housing design A, 2x socket	SA
Housing design B, 1x socket	SB

Materials	Code
PVC-U	1
PP	5
PVDF	20
Stainless steel 1.4435	34

Max. switching contacts	Code
Without limiting contact	00
1 limiting contact	01
1 working contact	10
1 working contact + 1 limiting contact	11
Indication of contact position as additional text to order key (see dimensions on title page). 2 working contacts ref. no. 20 are also available on request.	

Min. switching contacts	Code
Without limiting contact	00
1 limiting contact	01
1 working contact	10
1 working contact + 1 limiting contact	11
Indication of contact position as additional text to order key (see dimensions on title page). 2 working contacts ref. no. 20 are also available on request.	

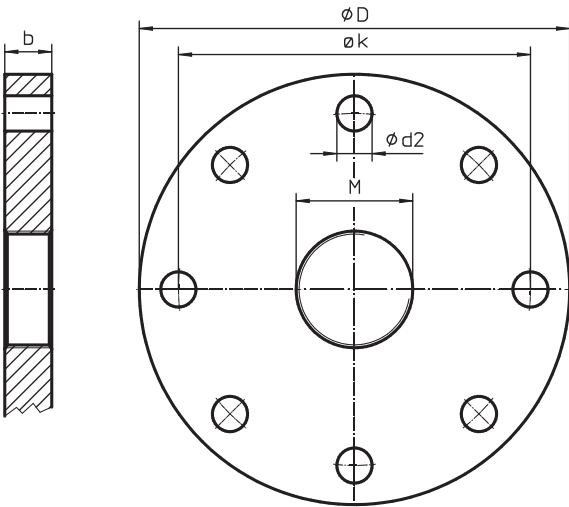
Installation lengths	
PVC-U, PP, PVDF,	300-1400 mm (in 100 mm steps)
Stainless steel 1.4435	300-2100 mm (in 100 mm steps)

Order example	902	G2	K1	5	01	00	0300
Type	902						
Mounting flange (code)		G2					
Connection (code)			K1				
Material (code)				5			
Max. switching contact (code)					01		
Min. switching contact (code)						00	
Installation length (mm)							0300

Note: Max. limiting contact at 1500 mm, min. limiting contact at 100 mm

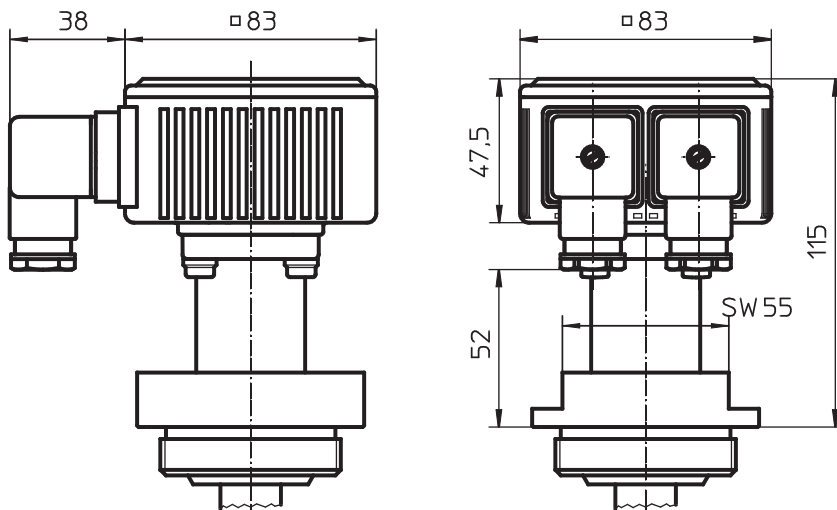
Dimensions [mm]

Mounting flange

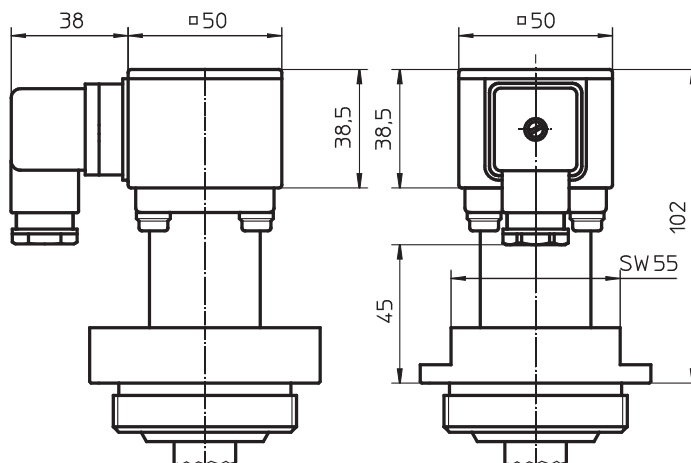


Material	ϕD	ϕk	$\phi d2$	b	M
DIN metall	220,0	180,0	18	20,0	G2"
DIN plastic	220,0	180,0	18	24,0	G2"
ANSI metall	228,6	190,5	19	23,8	G2"
ANSI plastic	228,6	190,5	19	23,8	G2"

Housing design A

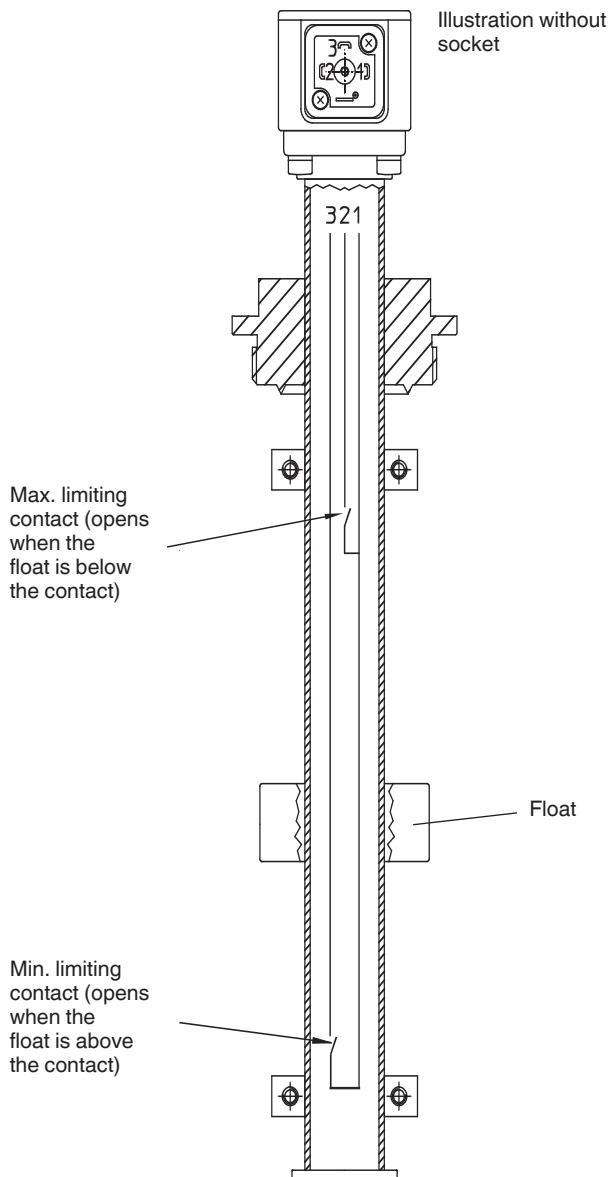


Housing design B



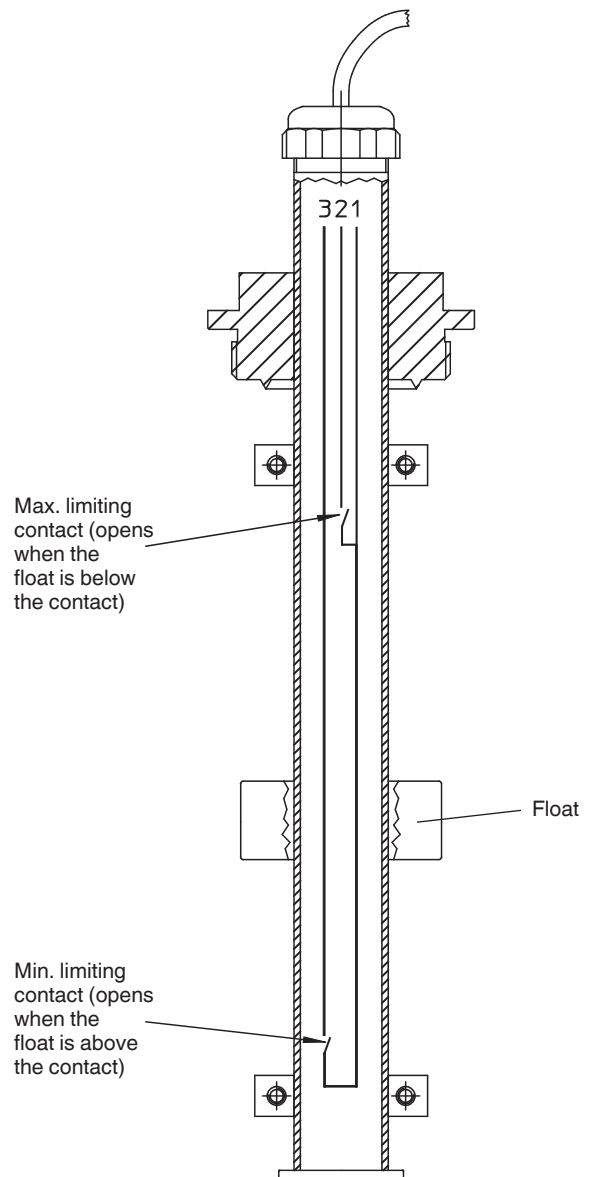
Connection diagrams: switching contacts are limiting contacts

Housing design B (connection code SB)



- 1 - Common power supply line to Max and Min contacts
- 2 - Max. contact output
- 3 - Min. contact output

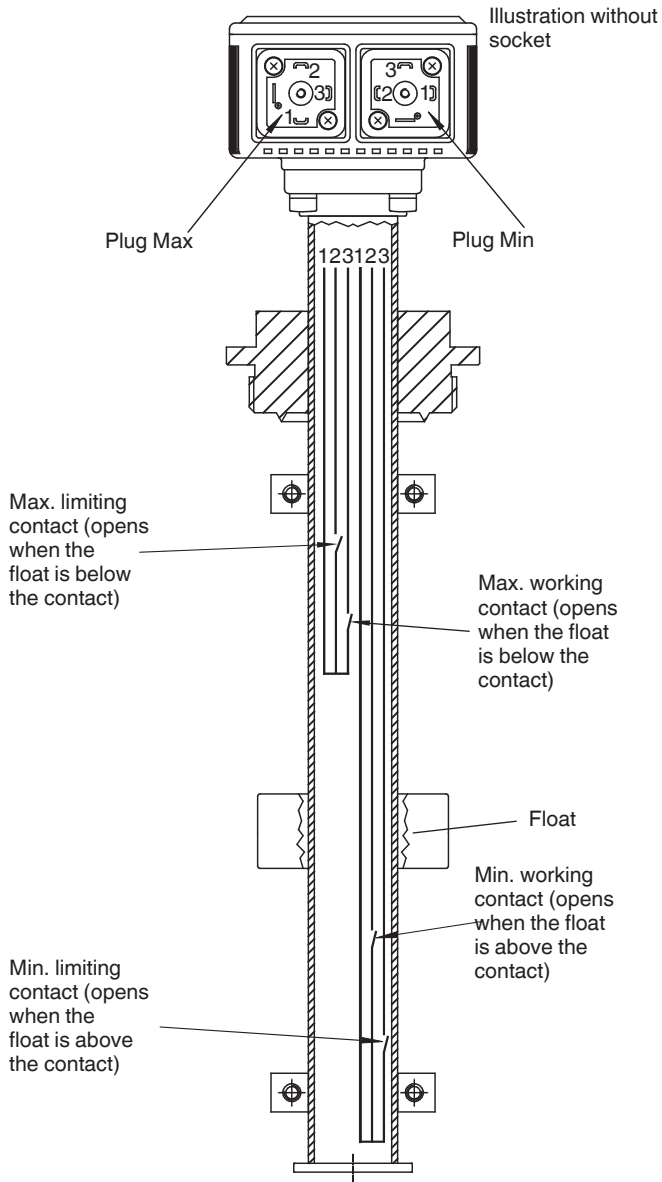
Cable connection (code K1 - K3)



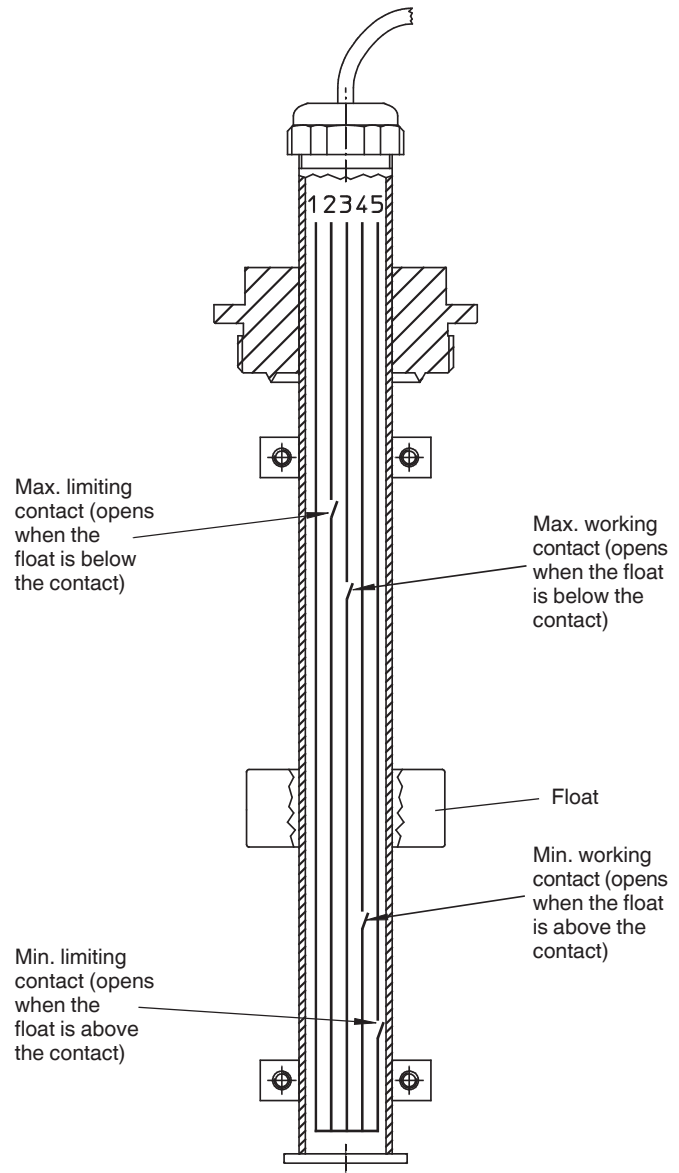
- 1 - brown wire - common power supply line to Max and Min contact
- 2 - green wire - Max contact output
- 3 - white wire - Min contact output

Connection diagrams: switching contacts are limiting and working contacts

Housing design A (connection code SA)



Cable connection (code K1 - K3)



Plug left MAX

- 1 - common power supply line to working contact and limiting contact
- 2 - working contact output
- 3 - limiting contact output

Plug right MIN

- 1 - common power supply line to working contact and limiting contact
- 2 - working contact output
- 3 - limiting contact output

- 1 - brown wire - common power supply line to Max and Min contacts
- 2 - green wire - Max limiting contact output
- 3 - white wire - Max working contact output
- 4 - yellow wire - Min working contact output
- 5 - grey wire - Min limiting contact output

For further level transmitter, accessories and other products please see our Product Range catalogue and Price List.
Contact GEMÜ.

GEMÜ® VALVES, MEASUREMENT AND CONTROL SYSTEMS

