ARD 75 Immersion Fitting

Modular Fitting with an Extraordinary Range of Functions for up to 3 Sensors

The fitting is used for measuring in tanks, basins and channels. For maximum flexibility, it offers numerous functions that can be freely combined. The special design facilitates sensor replacement. High-quality PP-H or PVDF makes it very sturdy. It can hold up to 3 sensors (PG 13.5) and accepts almost every standard sensor.

Applications

PP-H: Water, wastewater, industrial water

PVDF   Chemical and petrochemical industry, power plants, electroplating, ore processing

Catenary suspension

Ambient side with cable gland

Plastic tube with special sleeve geometry 25 ... 250 cm long

Sensor adapter

Facts and Features

– High variability — adaptable to virtually every process

– Safe functioning, easy maintenance thanks to a special and unique design

– Easy removal/installation of the sensor adapter with just ½ turn of a coupling nut (manual).

– Removal of the sensor adapter through the top or from the bottom of the immersion pipe

– No cable twisting during sensor installation

– Sensor adapters: 3 x PG 13.5 / PG 13.5 with pressurization / SE670 G1 / SE 655, SE 656 (G¾) / ¾" NPT / 1" NPT / SE680 / G1 for SE 604-MS , SE605-MS

– Rinse function for cleaning the sensors without opening or dismantling the fitting (PG 13,5, internal supply of rinse medium incl. check valve)

– Immersion depths: 25 – 250 cm

– Materials: PP-H, PVDF

– High pressure and temperature resistance

– Wetting cup

– Process connections: flange DN 80 – DN 100 or ANSI 3"- 4", optionally with sliding flange bushing wall holder catenary suspension (also as submersible version) pipe clamp

– Cable glands: EPDM cap with cable support sleeves and strain relief, submersible cable glands

– Stainless steel bracket for strain relief of the sensor cable

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Specifications

Sensors	3 x Ø12 mm, length 120 mm, thread PG 13.5 / SE670 G1 / SE 655, SE 656 / thread ¾" NPT/ 1" NPT / SE 680 / G1 for SE 604-MS, SE 605-MS
Diameter	75 mm
Pressure/temperature	See diagram

Process connections		
	Loose flange EN 1092-1	DN80/DN100
	Loose flange ANSI B 16.5/150 lbs	3"/4"
	Wall holder	Stainless steel 1.4571
	Catenary suspension	Also as submersible version
	Pipe clamp	Adjustable stop, stainless steel 1.4571

Wetted materials		
	Fitting	PP-H/PVDF
	Sealing material	EPDM / FKM / FFKM / FFKM Perlast G75B
	Rinsing	PEEK, Hastelloy
	Catenary suspension	Rope: polyamide

Sensor protection in the process	Probe guard integrated in the sensor adapter for sensors with 12 mm dia., 120 mm length, PG 13.5 thread
Immersion depth	250, 500, 1000, 1500, 2000, 2500 mm [special lengths (in cm) available on request]

Rinsing		
	Hose	NW 6 mm
	Material	EPDM
	Check valve in the sensor adapter	

Transport and storage temperature	14 ... 158 °F (-10 ... 70 °C)
Ambient temperature	23 ... 131 °F (-5 ... 55 °C)

Protection according to EN 60529		
	Ambient side open	IP10
	Ambient side with rubber cap	IP65
	Ambient side cable gland	IP68 (immersion depth: 10 m permanently) and IP66

Removing the Sensor Adapter for Replacing the Sensor

from the bottom

through the immersion tube
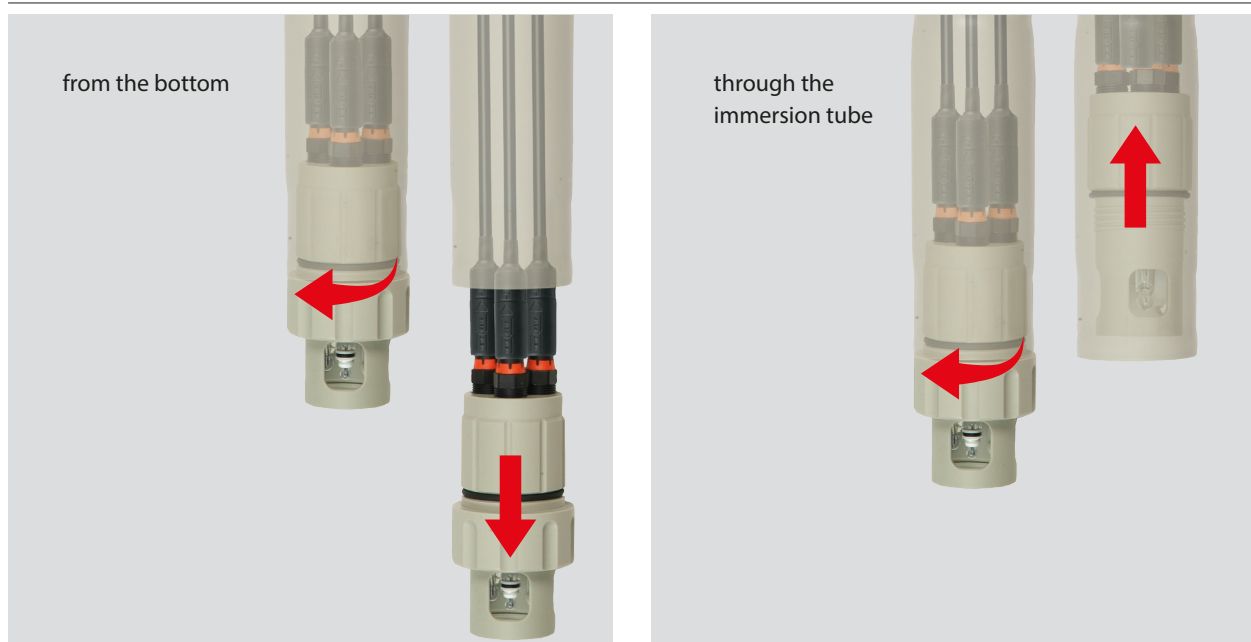
Modular System

This immersion fitting comes in 6 different nominal lengths (special lengths on request).
The modular system is completed by various cable glands, process connections and sensor adapters.
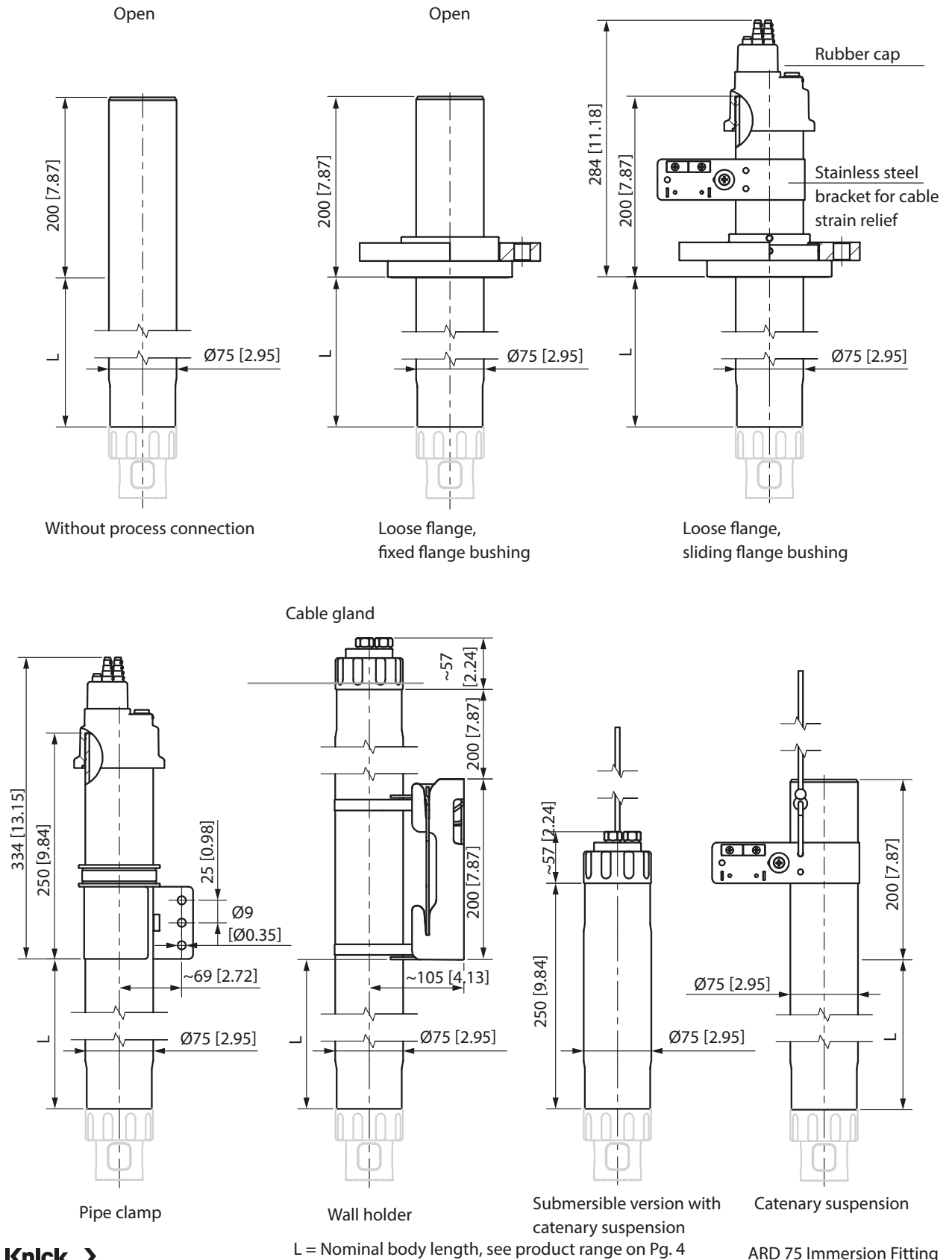
Ambient Side

| Open, with stainless steel bracket for strain relief of the sensor cable | Rubber cap with support sleeves for hose and cable | Cable gland | Cable gland with catenary suspension |

Process Connection

| Without | Wall holder | Flange, loose | Without |

Sensor Adapters

| Wetting cup | PG 13.5 with rinse function | SE 655 / SE 656 / SE 680 | 3x PG 13.5 |

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Product Range

| Immersion fitting | ARD 75- | | N | | | | | | | | - | | | |

Material of fitting

	Code
PP-H	P
PVDF	D

Sensor adapter

	Code		
3 x PG 13.5	1		A/B/C/D
3 x PG 13.5; with rinse function	2		
pH sensor, Ø 12 mm, pressurized	3		
SE 670/G1	4		
SE 655 (X) / SE 656 (X)	5		
¾" NPT	6		
1" NPT	7		
SE 680	8		
G1 for SE 604-MS / SE605-MS	9		

Sensor adapter with wetting cup

	Code		
3 x PG 13.5	A		A/B/C/D
3 x PG 13.5; with rinse function	B		
pH sensor, Ø 12 mm, pressurized	C		

Gasket material

	Code
FKM	A
EPDM	B
FFKM	K
FFKM Perlast G75B	L

Process connection

	Code					
Flange, loose, PN10/16, DN 80	0	B	3			
Flange, loose, PN10/16, DN 100	0	B	4			
Flange, loose, PN 10/16, DN 80, sliding flange bushing	V	B	3			
Flange, loose, PN 10/16, DN 100, sliding flange bushing	V	B	4			
Flange, loose, ANSI, 150 lbs, 3"	0	D	3			
Flange, loose, ANSI, 150 lbs, 4"	0	D	5			
Flange, loose, ANSI, 150 lbs, 3", sliding flange bushing	V	D	3			
Flange, loose, ANSI, 150 lbs, 4", sliding flange bushing	V	D	5			
Wall holder with locking function, stainless steel 1.4571	W	0	0			
Catenary suspension	S	0	0	B/D/E/F		
Catenary suspension, submersible version with weight	S	T	0	E	0 2 5	
Pipe clamp with adjustable stop	R	0	0			
Without process connection	0	0	0			

Ambient side

	Code
Open	A
Open, stainless steel bracket for cable strain relief	B
Rubber cap	C
Rubber cap, stainless steel bracket for cable strain relief	D
Cable gland	E
Cable gland, stainless steel bracket for cable strain relief	F

Nominal body length [cm]

	Code		
25	0	2	5
50	0	5	0
100	1	0	0
150	1	5	0
200	2	0	0
250	2	5	0
Special length (25 cm minimum)	*	*	*

Special version

	Code		
Without	0	0	0
Customer-specific special data sheet	F		

Dimension Drawings

Base Body

Open

Open

Rubber cap

Stainless steel
bracket for cable
strain relief

200 [7.87]

200 [7.87]

284 [11.18]

200 [7.87]

L

L

L

Ø75 [2.95]

Ø75 [2.95]

Ø75 [2.95]

Without process connection

Loose flange,
fixed flange bushing

Loose flange,
sliding flange bushing

Cable gland

334 [13.15]

250 [9.84]

25 [0.98]

Ø9
[Ø0.35]

~69 [2.72]

L

Ø75 [2.95]

~57 [2.24]

200 [7.87]

200 [7.87]

~105 [4.13]

L

Ø75 [2.95]

~57 [2.24]

250 [9.84]

Ø75 [2.95]

200 [7.87]

Ø75 [2.95]

L

Pipe clamp

Wall holder

Submersible version with
catenary suspension

Catenary suspension

L = Nominal body length, see product range on Pg. 4

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Dimension Drawings

Sensor Adapters

~79 [3.11] Ø52 [2.05]	~79 [3.11] Ø52 [2.05]	~79 [3.11] Ø52 [2.05]	~98 [3.86] Ø 119.7 [4.71]	~79 [3.11]
PG 13.5	PG 13.5 with rinse function	pH sensor, Ø12 mm, with pressurization	Static wetting cup	G1 for SE 604-MS / SE 605-MS

35 [1.38]	35 [1.38] 3/4" NPT	35 [1.38] 1" NPT	~186 [7.32]	~110 [4.33]	~116 [4.57]
G1 for SE 630 MS	3/4" NPT	1" NPT	SE 655/656	SE 680	SE 670
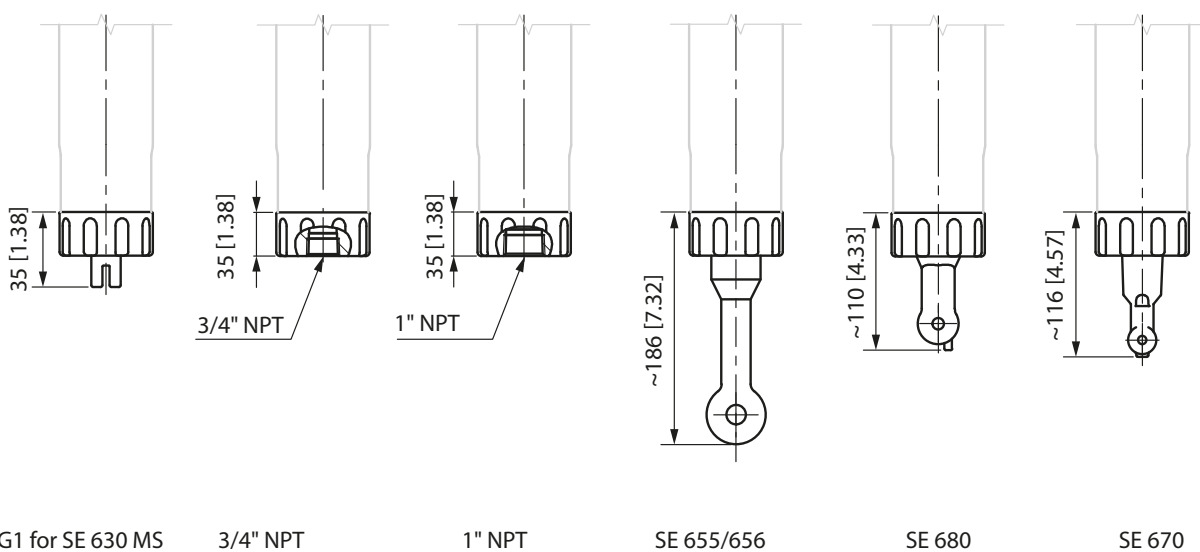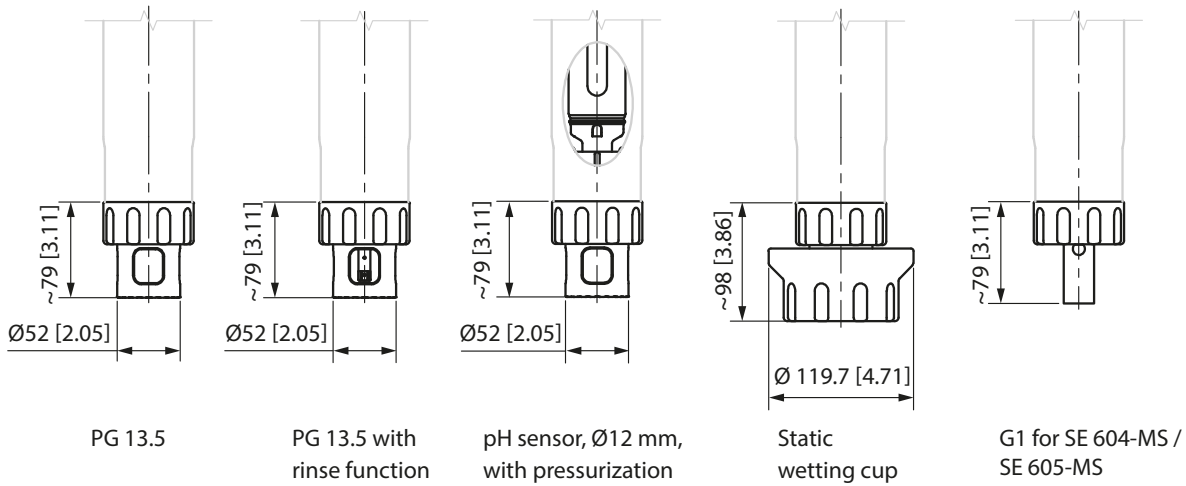
All dimensions in mm [inches]

Process Pressure/Temperature Diagram

Material: PVDF

Process Pressure/Temperature Diagram

Material: PP-H