

EXdip 910 / 920

TECHNICAL INFORMATION

Immersion fitting



All brand and product names are trademarks of the company:

EXNER PROCESS EQUIPMENT GmbH

Imprint

Distributed by:

Exner Process Equipment GmbH

Carl-Metz-Str. 26

D-76275 Ettlingen

Date of issue: 2025-01-09

As per: 01.09.2021

File: Technical information EXdip 910_920 210901

© 2020, Dipl.-Ing. [Graduate Engineer] Detlef Exner

All rights reserved, including the translation.

The reproduction of the content in these operating instructions is subject to prior written approval by EXNER PROCESS EQUIPMENT GMBH, ETTLINGEN.

All technical information, drawings, etc. is subject to the protection of copyright law.

Technical modifications reserved.

Printed on chlorine-free and acid-free pulp paper.

Table of contents

1	Technical data	4
1.1	Standards	4
1.2	Material properties	4
1.3	Cleaning port (optional)	4
1.4	Sensors	5
1.5	EXdip 910 / 920 dimensions	5
1.6	Environmental conditions	6
1.7	EXdip 910 process conditions	6
1.8	EXdip 920 process conditions	7
1.9	Identification plate	7
2	Product description	8
2.1	EXdip immersion fitting	8
2.1.1	Components	8
2.1.2	Versions	9
2.1.3	Rinsing (option)	9
2.2	Process integration	9
3	Ordering structure	11
3.1	EXdip 910 immersion fitting	11
3.2	EXdip 920 immersion fitting	12
4	Spare parts and accessories	13
4.1	Sealing kits	13
5	Certificates and compliance	14

1 Technical data

1.1 Standards

The following standards were applied when manufacturing the immersion fitting:

- Pressure Equipment Directive

1.2 Material properties

Wetted components			
Probe housing			
EXdip	Stainless steel	Plastic	Seals
910	1.4404/316 L		EPDM, FPM
920		PVDF	EPDM, FPM
		PP	EPDM, FPM

1.3 Cleaning port (optional)

Connections	
Immersion fitting	6/4 mm PTFE hose

Cleaning pressure	
	1-6 bar

1.4 Sensors

Gel-filled sensor			
EXdip	l (mm)	d [mm]	PG
910 / 920	120	12	13.5



1.5 EXdip 910 / 920 dimensions

EXdip 910/920 dimension			
	910	920	920
	Flange 4404	PP/PVDF flange	PP/PVDF support bracket
Measurements [mm]	EXdip	EXdip	EXdip
	910	920	920
A	49	50	50

B	500-2500	500-2500	500-2500
C	150	161	320
D	-	-	108

1.6 Environmental conditions

Ambient temperature -10...70 °C

Transport and storage temperature -10...80 °C

1.7 EXdip 910 process conditions

Max. permissible pressure PS: 10 bar

Max. permissible temperature TS: 140 °C

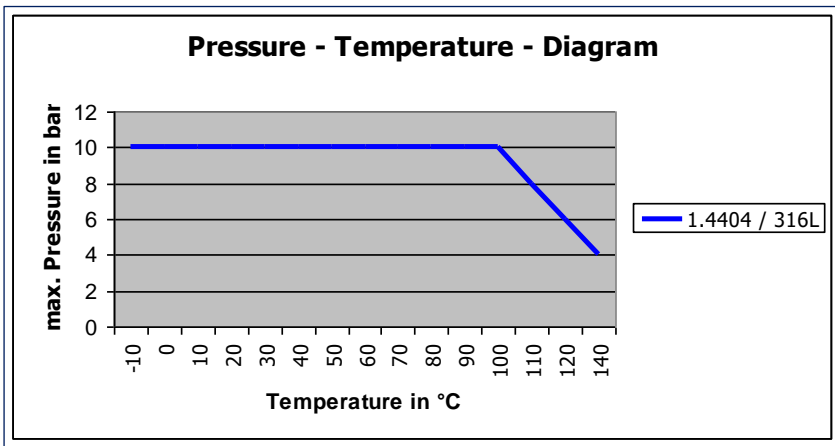


Fig. 1: EXdip 910 pressure-temperature diagram

1.8 EXdip 920 process conditions

Max. permissible pressure PS: 6 bar

Max. permissible temperature TS: 90 °C

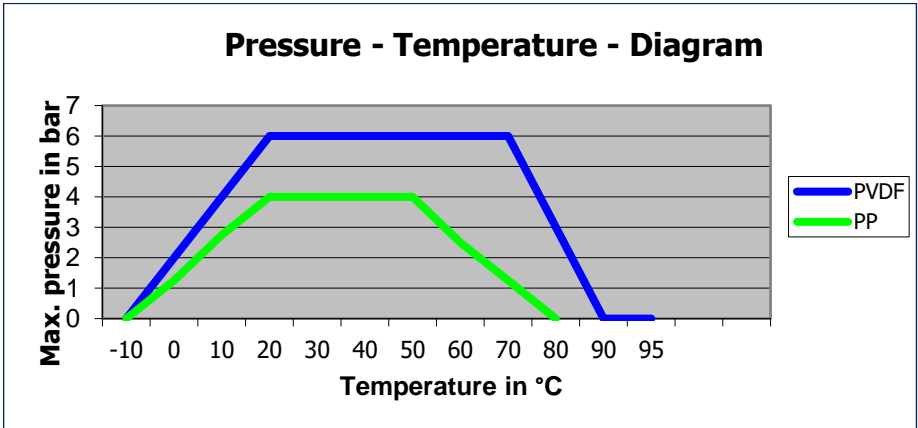


Fig. 2: EXdip 920 pressure-temperature diagram

1.9 Identification plate

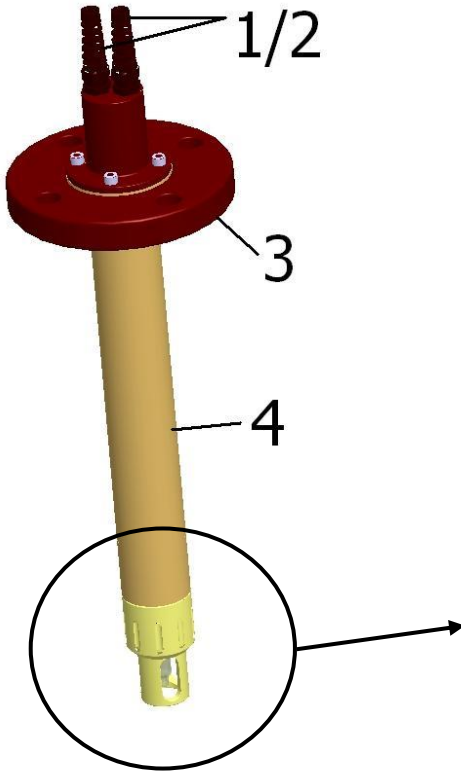


Fig. 3: Identification plate

2 Product description

2.1 EXdip immersion fitting

2.1.1 Components



1	Sensor cable bend protection
2	Rinsing pipe bend protection
3	Thread / Process connector
4	Insertion rod
5	Sensor support
6	Rinsing pipe
7	Sensor
8	Protection cage
9	Union nut

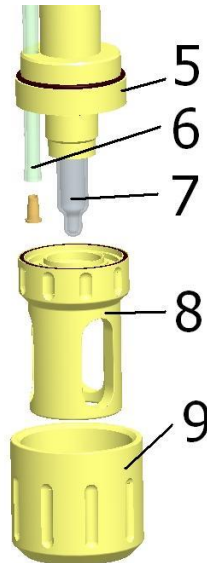


Fig. 4: EXdip immersion fitting

2.1.2 Versions

Immersion fittings are attached to tanks or channels using a flange or support bracket (only plastics). In order to meet the requirements of the versatile process properties, the EXdip immersion fitting is manufactured from stainless steel or plastic. Furthermore, you can choose between different immersion lengths, sealing materials and thread versions for the sensors which are screwed into place.

2.1.3 Rinsing (option)

The rinsing nozzles integrated into the protection cage offer effective mechanical rinsing of the sensor by means of incoming air or rinsing liquid. The rinsing agent is continuously distributed over the racks of the protection cage and, thus, directly contacts the sensor. Due to the construction design, the cleaning efficiency is very good.

2.2 Process integration

Control unit

The automatic rinsing procedure for the EXdip immersion fitting can be triggered by means of a corresponding cleaning contact in the respective transmitter. No additional control unit is required.

Transmitter

The immersion fitting dips a sensor into the process liquid, which transfers its measurement results to a transmitter.

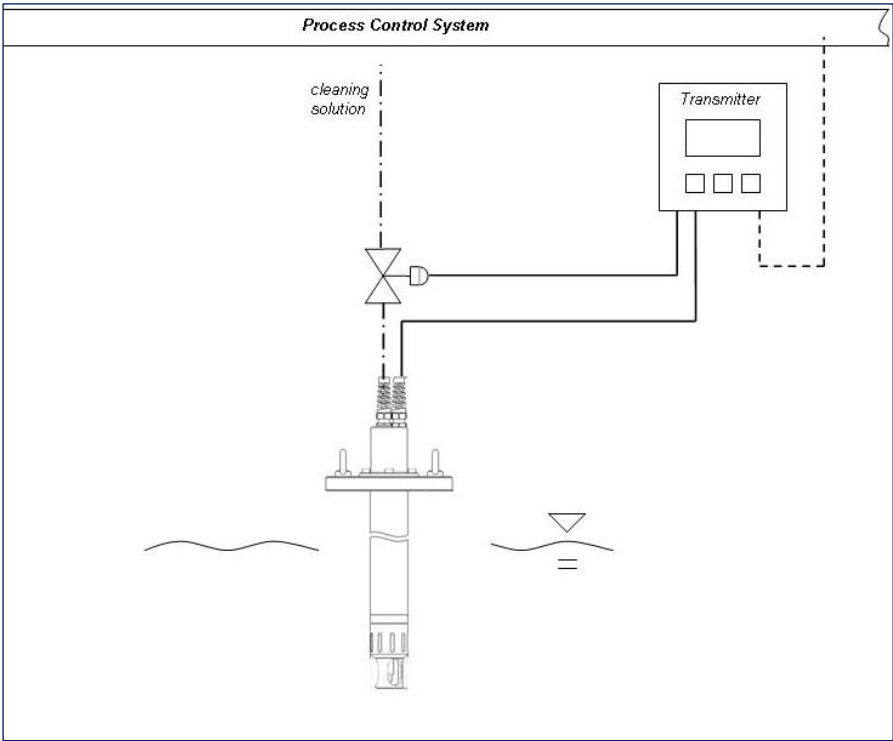


Fig. 5: Process flow

Pressure / Temperature

Dependent on the probe housing used, the process temperature must be between -10°C and 140°C . Dependent on the temperature, the stainless steel immersion fitting can be used up to a pressure of 10 bar and the plastic version up to a pressure of 6 bar.

NOTE

Observe the pressure and temperature diagrams in Chapters 3.7 "EXdip 910 process conditions" and 3.8 "EXdip 920 process conditions"

Installation position

Basically, the immersion fitting can be operated in any position. In order to obtain reliable measurement results, the sensor properties are decisive.

3 Ordering structure

3.1 EXdip 910 immersion fitting

	Code	Probe housing, material (wetted parts)				
	4404	Stainless steel 1.4404 / 316 L				
	XXXX	Special version				
		Code	Material (wetted parts)			
		EDP	EPDM			
		FPM	FPM			
		XXX	Special version			
			Code	Sensor		
			120	120 mm PG 13.5 Ø 12mm gel-filled		
			N34	For sensors with MNPT ¾" ("NC" only)		
			N10	For sensors with MNPT 1" ("NC" only)		
			XXX	Special version		
				Code	Process connection	
				D50	DN50 flange	
				A20	ANSI 2" flange	
				XXX	Special version	
					Code	Immersion depth
					05	0.5 metres
					10	1.0 metre
					15	1.5 metres
					20	2.0 metres
					25	2.5 metres
					XX	Special version
					Code	Rinsing
					NC	Without
					SC	With integrated rinsing
EXdip 910						Order code

3.2 EXdip 920 immersion fitting

EXdip 920	Code	Probe housing, material (wetted parts)			
	PP	PP			
	PV	PVDF			
	XX	Special version			
		Code	Material (wetted parts)		
		EDP	EPDM		
		FPM	FPM		
		XXX	Special version		
			Code	Sensor	
			120	120 mm PG 13.5 Ø 12mm gel-filled	
			N34	For sensors with MNPT ¾" ("NC" only)	
			N10	For sensors with MNPT 1" ("NC" only)	
			XXX	Special version	
			Code	Process connection	
			D50	DN50 flange	
			A20	ANSI 2" flange	
			SUH	With a support bracket	
			XXX	Special version	
			Code	Immersion depth	
			05	0.5 metres	
			10	1.0 metre	
			15	1.5 metres	
			20	2.0 metres	
			25	2.5 metres	
			XX	Special version	
				Code	Rinsing
				NC	Without
			SC	With integrated rinsing	
				Order code	

4 Spare parts and accessories

The immersion fitting serial number must always be quoted for spare parts and accessories orders.

4.1 Sealing kits

EXdip	Spare part	Order code
910	EPDM sealing kit	2-123-40-006
910	FPM sealing kit	2-123-41-006
920	EPDM sealing kit	2-123-40-007
920	FPM sealing kit	2-123-41-007

5 Certificates and compliances

All freely available certificates and conformities can be found in their most current form in the "Downloads" section of our website.

To access the following address, enter it into your browser or scan the QR code below. Then select the relevant product and document from the list.

<https://e-p-e.com/en/downloads>



Depending on the product, additional certificates (e.g. material, surface, etc.) are available. If necessary, please send a corresponding request to Exner Process Equipment GmbH.



Exner Process Equipment GmbH
Carl-Metz-Str. 26
D-76275 Ettlingen
Germany

tel +49 (0)7243-94 54 29-0
fax +49 (0)7243-94 54 29-99
mail info@e-p-e.de

www.e-p-e.com