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JUMO Process Immersion Fitting

Type 202821

Brief description

Process immersion fittings are used to securely install electrochemical sensors in containers. The fittings of the 202821 series are specifically designed for use in harsh ambient conditions. These fittings are particularly used in heavily polluted media or in media which could cause a coating to build up. The fitting is suitable for inserting filled sensors with mounting dimensions 120 × 12 mm, and a Pg13.5 thread. The fitting is integrated into the particular process by a flange. In the standard version, the fitting is supplied in 1.4404/316L stainless steel, suitable for pharmaceutical use. Other materials are available on request. The different fitting lengths available to the user range from 500 to 2500 mm (always in 500 mm steps). Typical installations are from above, into the container, or into the channel.

A rinsing function, available as an option, makes it easy to clean the sensors. A downstream pH transmitter with washing contact can be used to enable a valve (rinsing liquid or compressed air). A separate controller is not necessary in this case.

Operating principle of the sensor rinsing option

An integrated rinsing device is available as an option, and uses inflowing air, or a suitable rinsing liquid, to achieve effective, mechanical cleaning of the sensor. This ensures reliable measurement, even in critical media. A cleaning or washing contact on the pH transmitter can be used to activate a time switch, a valve, or a separate controller. The following components must be provided and made available by the user:

- Cleaning solution (e.g. water supply)
- Chemicals, if necessary
- Compressed air supply

The rinsing line is integrated in the fitting. It exits via the cable gland at the top of the fitting. The line projects approx. 1 meter from the fitting and can be connected to the supply line by a standard commercial screw-fitting (e. g. Festo, Swagelock, etc.). The screw-fitting is not included in delivery.

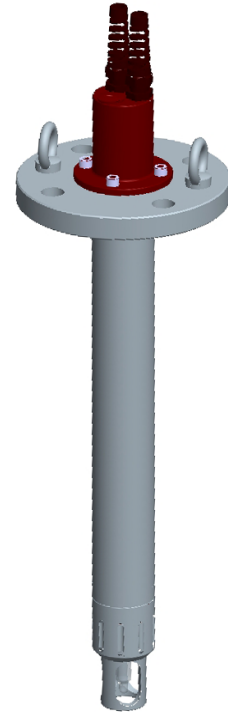
The sensor is then cleaned with compressed air or with a suitable rinsing liquid, in accordance with the set rinsing period. The ring-shaped arrangement of the spray nozzles ensures optimum cleaning.

Note:

It is the responsibility of the user to check the chemical compatibility of the fitting material and the sample medium with the cleaning solution.

Key features

- Suitable for all 120 × 2 mm sensors with a Pg13.5 thread
- Sturdy design
- Increases sensor service life
- Reduces maintenance expenditure
- Simple installation and sensor mounting
- Rinsing device option



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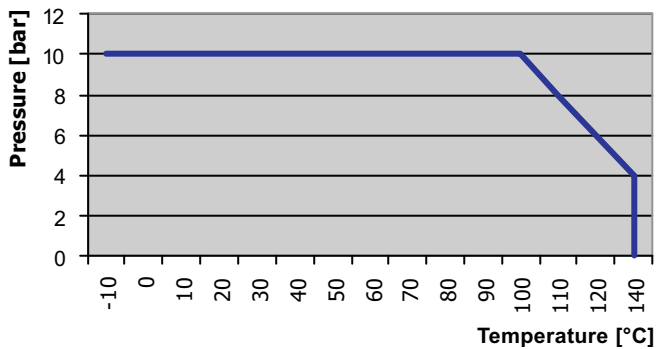
Technical data

Material in contact with the medium	1.4404/316L stainless steel
Hose connection	4 mm and 6 mm diameter, PTFE
Sensor holder	Suitable for 1 sensor: 120 × 12 mm with Pg13.5 thread. Not suitable for electrodes with a liquid KCl electrolyte!
Fitting length^a	500 to 2500 mm (in 500 mm steps)
Operating temperature^b	-10 to +140 °C
Process connection 733 flange DN50	Stainless steel
Rinsing connection (extra code 921)	Tube connection external ø 6 mm, internal 4 mm, integrated rinsing line, PTFE hose
Operating pressure^{a,b} at -10 to +100 °C at +140°C	10 bar 4 bar
Rinsing pressure	1 to 6 bar

^a Fittings with a fitting length up to 1500 mm are sent out by DPD; longer fittings are delivered by carrier.

^b Comply with the maximum permissible sensor pressure and temperature!

Permissible pressure and temperature (flange connection version)



Note: Comply with the technical data of the sensor used!

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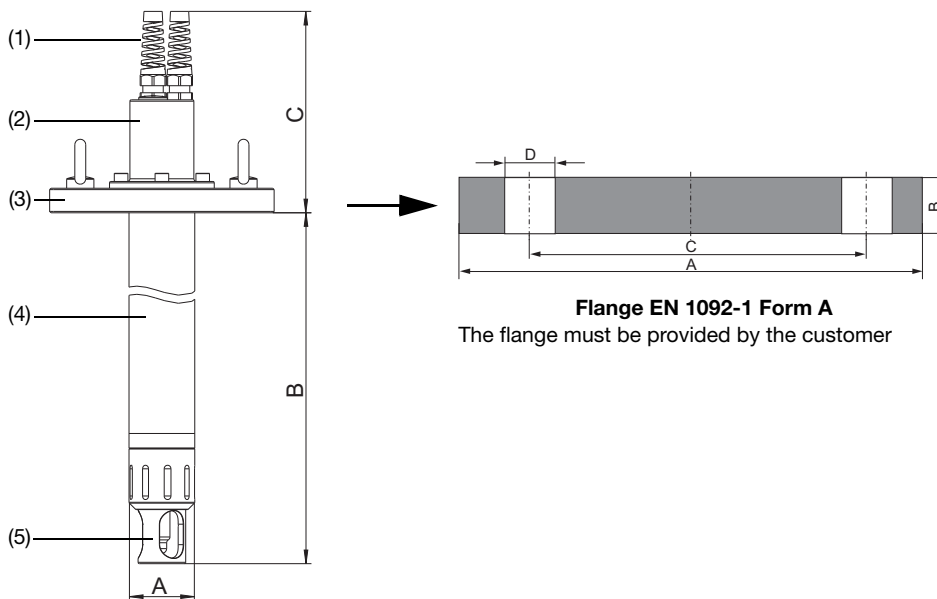
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Dimensions

Process connection 733 (DN50 flange)



Dimension	Process connection 733 (DN50 flange)	
	Diagram on left	Diagram on right
A	50 mm	165 mm
B	500 mm to 2500 mm	20 mm
C	161 mm	125 mm
D	-	4 x 18 mm holes

Materials

(1)	PA
(2)	PA
(3)	1.4404 / 316L stainless steel ^a
(4)	1.4404 / 316L stainless steel ^a
(5)	1.4404 / 316L stainless steel ^a

^a In contact with sample medium

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Order details: Process immersion fitting

	(1) Basic type	
	202821	JUMO process immersion fitting
	(2) Material	
x	24	1.4404/316L stainless steel
	(3) Process connection	
x	733	DN50 flange, EN 1092-1 Form A
	(4) Fitting length	
o	0500	500 mm
x	1000	1000 mm
o	1500	1500 mm
o	2000	2000 mm
o	2500	2500 mm
	(5) Seal	
x	600	EPDM
o	601	FPM
	(6) Extra codes	
x	000	none
o	921	Integrated spray nozzle

x = standard
 o = option

Order code / - - - / , ...
Order example 202821 / 24 - 733 - 0500 - 600 / 921

Note:
 The type code is not a modular system.
 If possible, choose items listed under "**stock versions**" or "**production versions**" for your orders.
 We will have to technically inspect and approve a free combination of individual key features.

Production versions (delivery approx. 3 weeks after receipt of order)

Type	Brief description	Part no.
202821/24-733-0500-600/921	Process immersion fitting, 1.4404/316L, DN50 flange, fitting length 500 mm, EPDM seal, integrated spray nozzle	00543920
202821/24-733-1000-600/921	Process immersion fitting, 1.4404/316L, DN50 flange, fitting length 1000 mm, EPDM seal, integrated spray nozzle	00543923
202821/24-733-2000-600/921	Process immersion fitting, 1.4404/316L, DN50 flange, fitting length 2000 mm, EPDM seal, integrated spray nozzle	00543924

Spare parts (delivery approx. 3 weeks after receipt of order)

Type	Brief description
EPDM seal kit	For 1.4404/316L stainless steel version
FPM seal kit	For 1.4404/316L stainless steel version