

DUPLEX FILTER F101D

Application

The Duplex Filter F101D is a multi-purpose filter for liquid media. It is characterized by continuous operation during the cleaning phase as well as a high degree of filtration down to very low microns. As a special feature the maintenance and strainer access can be optimized by choosing different filter cover solutions.

The degree of contamination can be optionally monitored with various differential pressure indicators. Further options, for example magnetic inserts or the sacrificial anode enable an application-specific customization.

Function

The Duplex Filter is produced as a cast part; one piece consisting of two identical filter housings which are connected via a switch-over device and can be operated alternately or in parallel. The standard filter design consists of a cast housing and a cover which is fixed with a clamp lock. Venting devices in the covers and draining devices in the housing are included in the scope of supply. The flanges are arranged one above the other on one side of the filter.

The filter is equipped with a basket or ring-type strainer. The medium to be filtered flows through the strainer from the inside to the outside. The strainer is made out of a perforated plate which can be covered optionally with mesh in different mesh sizes. While starting up the plant it is possible to operate both filters in parallel which reduces the filter's pressure loss. This has significant advantages in particular in case of fluids with higher viscosities which heat up during operation (cold start).



Technical Data

In- / outlet:	DN15 – DN50
Operating medium:	Fluids
Volume flow:	max. 18 m ³ /h
Design pressure:	10 bar

Components	Standard	Customized
Strainer:	Basket strainer	Ring-type strainer
Grade of filtration:	80 – 1000 µm (fabric / perforated plate) ≥ 1 mm (perforated plate)	10 – 60 µm acc. customer's specification
Filter cover:	Cover with clamp lock (Typ F101D) Cover with stud bolts and nuts (Typ F101DS)	
Drainage:	Screw (Brass)	Ball valve; acc. customer's specification
Ventilation:	Valve (Brass)	Ball valve; acc. customer's specification
Connection:	Flange acc. DIN EN 1092-2	acc. customer's specification

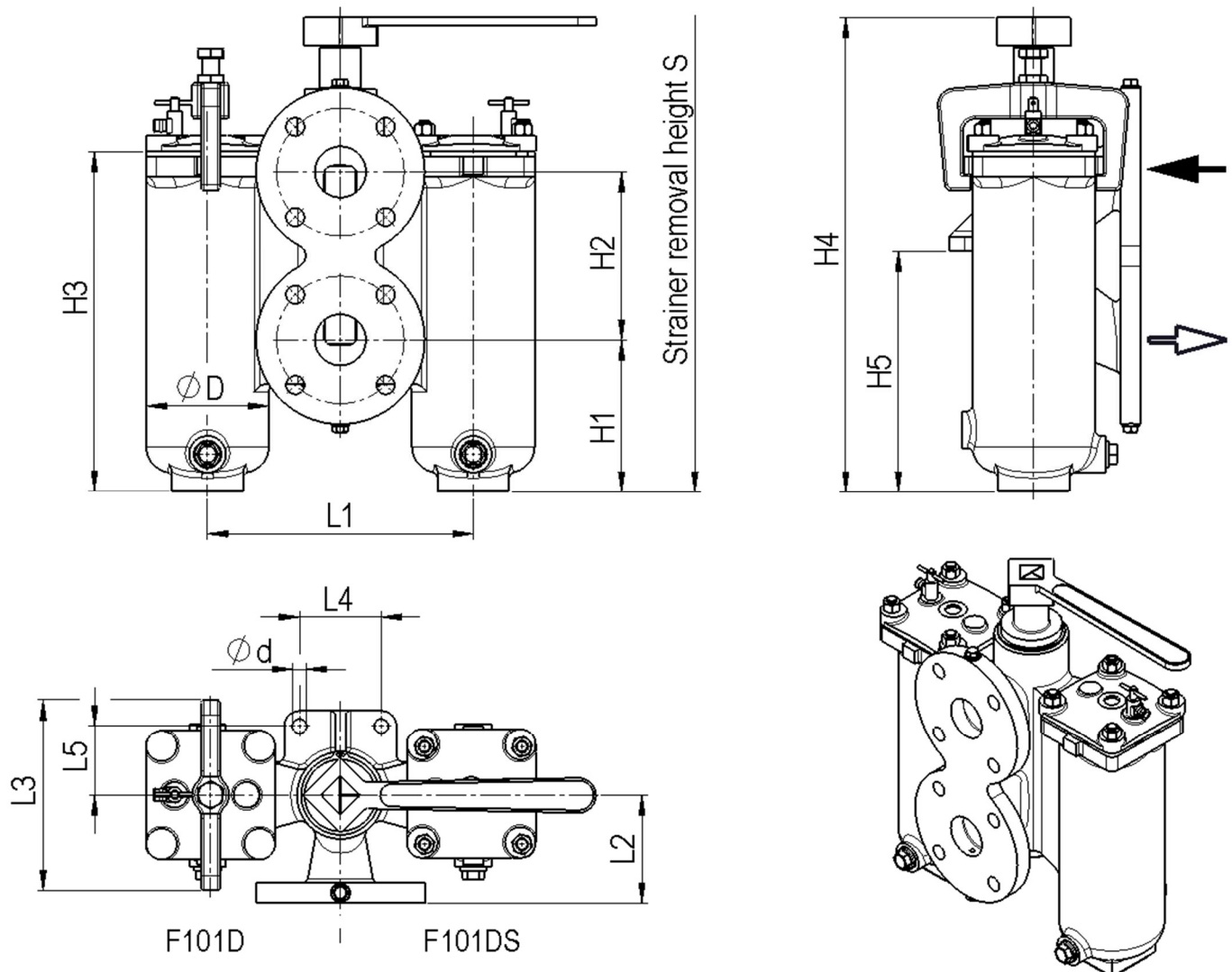
Materials		
Housing and cover:	GG-25	acc. customer's specification
Cover gasket:	NBR	EPDM, FPM, PTFE
Strainer (perforated plate / fabric):	1.4301, 1.4301 / 1.4401	1.4571, 1.4571 / 1.4401, brass / Bronze, Hastelloy C4

Surface Treatment		
Housing inside:	GG-25	Corrosion protection primer Epoxy coating
Housing outside:	GG-25	Synthetic enamel RAL5018 acc. customer's specification

Options	
Differential pressure indicator (optical / electrical), sacrificial anode, filter support, magnetic insert	

Further options and customer specific solutions are available upon request.

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DN	PN	ØD	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5	S	Ød	Volume	Flow capacity	Filter surface		Weight
																	BS*	RS*	
	bar	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	dm³	m³/h	cm²	cm²	kg
15/20	10	70	50	105	160	260	105	148	90	105	50	42	300	14	0,55	3	110	-	16
25	10	80	85	115	200	295	135	160	90	120	50	42	350	14	0,6	4,5	140	-	19
32	10	100	105	140	245	370	165	190	90	145	60	50	450	14	1,25	7	270	480	27
40	10	120	140	150	295	415	210	220	120	186	70	60	550	14	2,35	12	430	690	35
50	10	120	148	165	333	465	235	260	105	186	80	68	620	14	4,55	18	500	790	40

* BS = Basket strainer

* RS = Ring-type strainer

Larger filter sizes, higher operating pressures as well as further customer specific designs and features are available upon request.

The above mentioned flow capacity is valid for inlet velocities of 2,5 m/s in pressure pipes, a viscosity of 1 mPas (water) and a grade of filtration $\geq 80 \mu\text{m}$. For suction pipes we recommend half of the above mentioned flow capacity values.