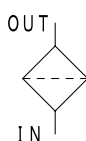


Simple Line Filter with filtration function only

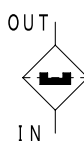


Characteristics

- Suitable for various fluid: hydraulic oil, fuel oil, and so on
- Less components, Simple, Light
- Magnet is installable for magnetic particle removal (option)
- Pipe connection type is "Rc threaded" only



Oil filter



Magnet

SPECIFICATION

Max working pressure	MPa	0.5
Working temperature	Standard	°C -10 ~ 90
	High temperature *1	°C -10 ~ 150
Indicator working pressure	MPa	Not available
Cracking pressure	MPa	Not available
Allowable differential pressure of filter element	MPa	0.7
Flow direction/Extract direction of filter element		OUT → IN / Downward

Inner diameter	10	12	16	20	24
Standard flow rate ☆ ℓ/min	170	185	300	570	610
Main material	Upper cover	AC			
	Lower cover	SPCE			
Coating	Upper cover	Non-coating			
	Lower cover	Plating			
Weight	kg	2.6	4.0	7.8	

☆ Standard flow rate is estimated by the condition of density: 0.86, kinematic viscosity: 32mm²/s, filtration rating: 10U, pressure drop: lower than 0.05MPa.
(Since it is adjusted by characteristic of each product, value can be different in some cases.)

MODEL CODE

<Model code example>

F — **LN** — **24** — **10U** — **M**

Code	Fluid type
Blank	Mineral oil
F	Phosphate ester fluid
G	Water glycol fluid
C	Fatty ester fluid
W	High water base fluid
S	Fuel (Kerosene, Gas oil, Diesel oil)

Code	Inner diameter
10	Rc1 1/4
12	Rc1 1/2
16	Rc2
20	Rc2 1/2
24	Rc3

Code	Filtration rating
C-Fiber	
8C	8 μm
25C	25 μm
Paper	
10U	10 μm
20U *2	20 μm
40U *2	40 μm

Refer to P.15 -16 for detail information of filter element.

Code	Filtration rating
Wire gauze	
5UW	5 μm
10UW	10 μm
20UW	20 μm
40UW	40 μm
50UW	50 μm
200W	200Mesh
150W	150Mesh
100W	100Mesh
60W	60Mesh
Notch wire (Dimple wire)	
50UK	50 μm
200K	200Mesh
150K	150Mesh
100K	100Mesh
60K	60Mesh

Code	Option
	Magnet
Blank	Non
M	Magnet

FLOW RATE GRAPH

Condition

Fluid type : ISO VG32
Oil temperature : 40°C

(Density: 0.86,
Kinematic
viscosity: 32mm²/s)

How to calculate of pressure drop

• Estimate pressure drop of filter assembly by following equation:

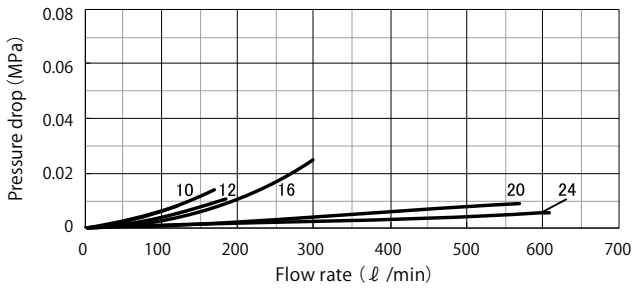
$$\text{Pressure drop of filter assembly} = \text{① Pressure drop of filter housing} + \text{② Pressure drop of filter element}$$

• Estimate pressure drop of filter assembly by following equation if required condition is different:

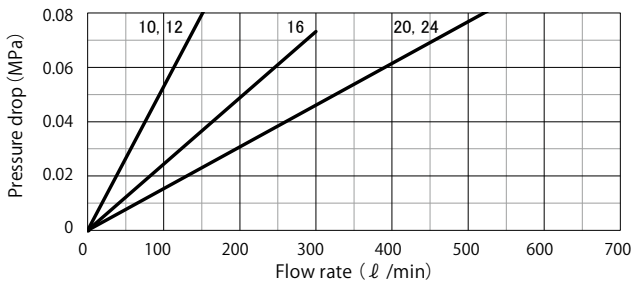
$$\begin{aligned} \text{Pressure drop of filter housing} &= \frac{\text{Fluid density}}{0.86} \times \text{Pressure drop of filter housing at density of 0.86} \\ \text{Pressure drop of filter element} &= \frac{\text{Fluid density}}{0.86} \times \frac{\text{Kinematic viscosity}}{32} \times \text{Pressure drop of filter element at density of 0.86, kinematic viscosity of 32} \end{aligned}$$

★ Pressure drop of filter housing is proportional to fluid density, and pressure drop of filter element is proportional to fluid density and kinematic viscosity.

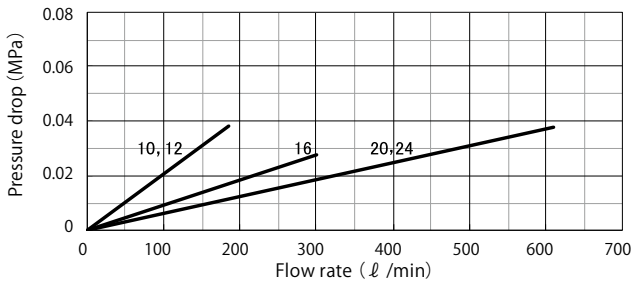
① Pressure drop of filter housing



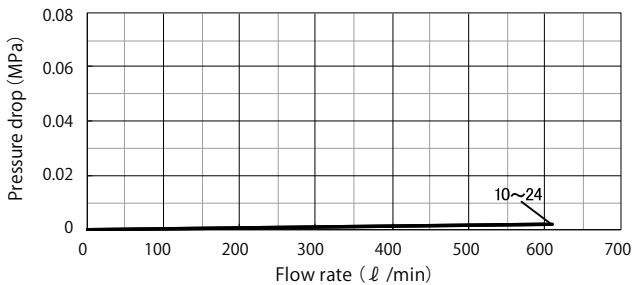
② Pressure drop of filter element



8C
8 μm



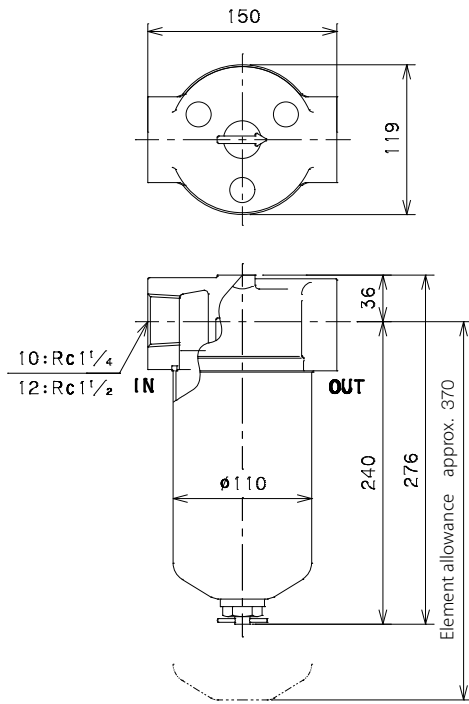
10U
10 μm



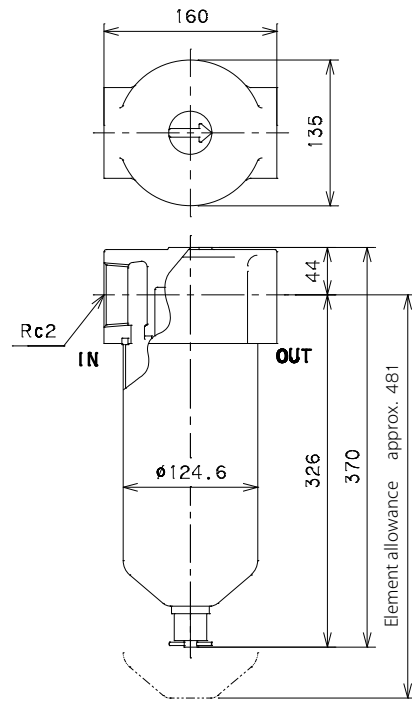
150W
150 Mesh*

* 1 Pressure drop of wire gauze element is described with one line since the value is low and there is no difference at each filter size.

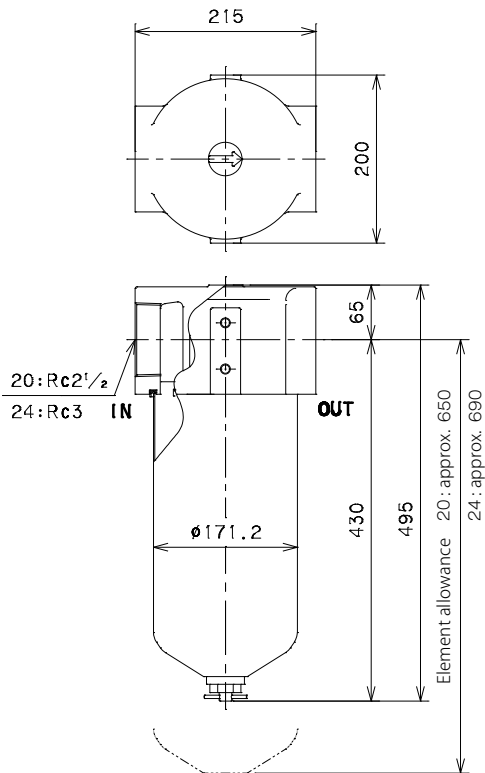
LN-10,12 - □□-□



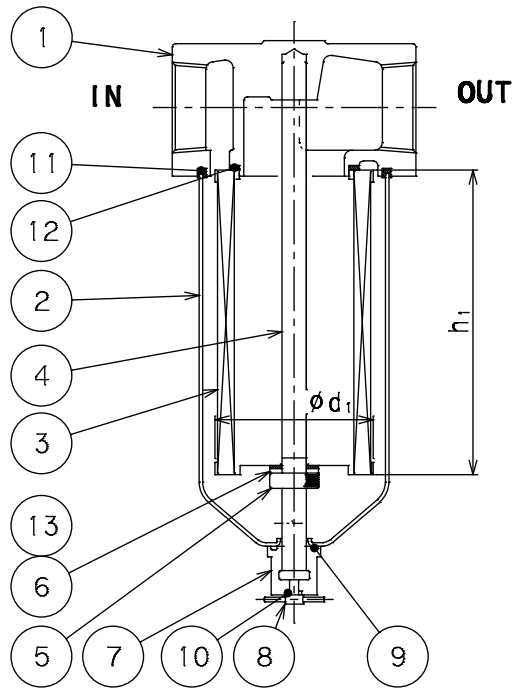
LN-16 - □□-□



LN-20,24 - □□-□



CROSS SECTION



PARTS LIST

No.	Item	Qty
1	Upper cover	1
2	Lower cover	1
3	Element	1
4	Center rod	1
5	Round nut	1
6	Washer	1
7	Nut	1
8	Drain plug	1
9	O-ring	1
10	O-ring	1
11	Packing	1
12	Packing	1
13	Packing	1

ELEMENT SIZE

Element Model code	Size(mm)		Weight*1 (kg)
	φ d ₁	h ₁	
P-LN-10,12	83	150 (152)	0.37
P-LN-16	104	200	0.72
P-LN-20	124	260	1.00
P-LN-24		300	1.13

* In case of Notch wire element, size is in ().

SEALING PARTS LIST

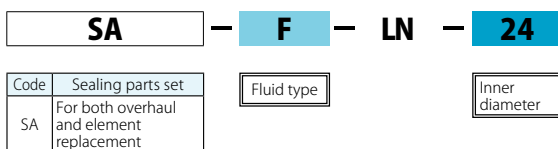
No.	9	10	11	12	13	Item code of sealing parts set*3	
Standard*2	JIS B2401 1A		Special packing			Material	SA No.: 9~13
LN-10	P25	P7	t4xφ111.7/φ104.3	t3xφ58/φ48	t2xφ26/φ12	NBR	SSF000043
LN-12						FKM	SSF000410
LN-16	P34	P9	t6xφ126.6/φ116	t3xφ85/φ72	t2xφ32/φ16	NBR	SSF000044
LN-20						FKM	SSF000411
LN-24	P34	P9	t3xφ181/φ165	t3xφ110/φ92	t2xφ40/φ20	NBR	SSF000609
LN-24						FKM	SSF000923

MODEL CODE OF SPARE PARTS

Replacement element (Model code example)



Sealing parts set (Model code example)



★ Model code of replacement element exists two types: "Individual code" and "Common code", however it represents same product.

"Individual code": Used in drawings and nameplate as shown in <Model code example>.

"Common code": Used in vouchers and tag Refer to [Spare Element List] on P.152 for "Common code".

★ Refer to the [MODEL CODE] table on the previous page for code selection.

★ Sealing parts set is available for both overhaul and element replacement. Model code is represented as "SA".

* 1 Weight of "Paper" element * 2 Standard for NBR. For other material, conform to the standard.
* 3 Sealing parts are available as "Sealing parts set" only. We do not provide single part individually.