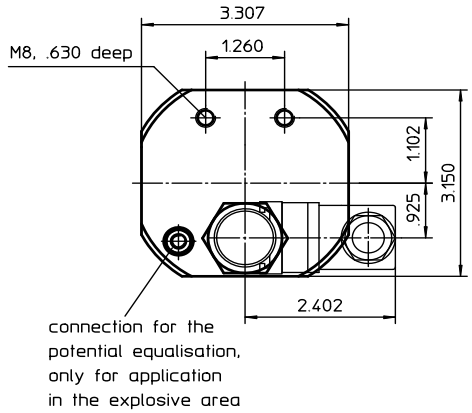
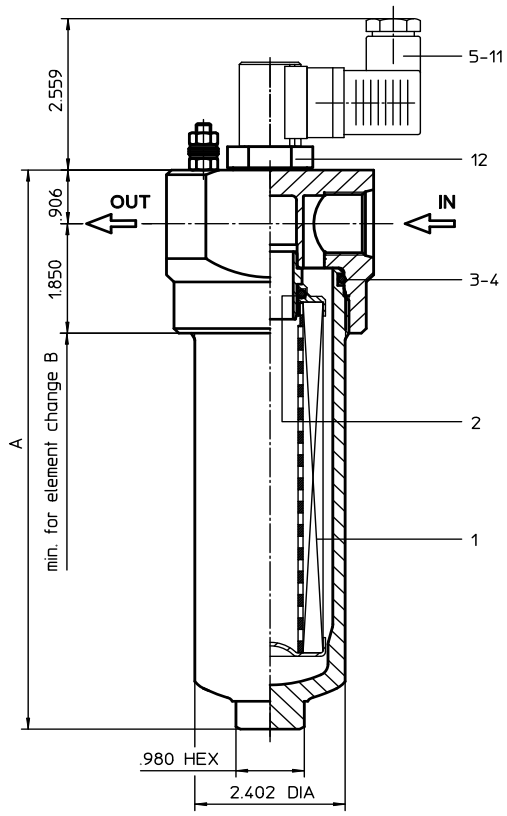
PRESSURE FILTER
Series MNL 40 - 100 2320 PSI

Sheet No.
1427 G





1. Type index:

1.1. Complete filter: (ordering example)

MNL.	63.	10VG.	HR.	E.	P.	-.	UG.	4.	-.	-.	AE
1	2	3	4	5	6	7	8	9	10	11	12

1 **series:**
MNL = standard in-line filter-medium pressure range according to DIN 24550 T1, T2

2 **nominal size:** 40, 63, 100

3 **filter-material and filter-fineness:**
80 G = 80 µm, 40 G = 40 µm, 25 G = 25µm stainless steel wire mesh
25 VG = 20 $\mu m_{(c)}$, 16 VG = 15 $\mu m_{(c)}$, 10 VG = 10 $\mu m_{(c)}$,
6 VG = 7 $\mu m_{(c)}$,3 VG = 5 $\mu m_{(c)}$ Interpor fleece (glass fiber)

4 **resistance of pressure difference for filter element:**
30 = Δp 435 PSI
HR = Δp 2320 PSI (rupture strength Δp 3625 PSI)

5 **filter element design:**
E = single-end open

6 **sealing material:**
P = Nitrile (NBR)
V = Viton (FPM)

7 **filter element specification:** (see catalog)
- = standard
VA = stainless steel
IS06 = see sheet-no. 31601

8 **connection:**
UG = thread connection

9 **connection size:**
3 = - 8 SAE
4 = - 12 SAE
5 = - 16 SAE

10 **filter housing specification:** (see catalog)
- = standard
IS06 = see sheet-no. 31605

11 **internal valve:**
- = without
S1 = with by-pass valve Δp 51 PSI
S2 = with by-pass valve Δp 102 PSI
R = reversing valve, Q ≤ 18.50 GPM

12 **clogging indicator or clogging sensor:**
- = without
AOR = visual, see sheet-no. 1606
AOC = visual, see sheet-no. 1606
AE = visual-electrical, see sheet-no. 1615
VS1 = electronical, see sheet-no. 1617
VS2 = electronical, see sheet-no. 1618

2. Dimensions: inch

type	MNL 40	MNL 63	MNL100
connection	-8 SAE	-12 SAE	-16 SAE
A	7.17	9.53	13.07
B	8.26	10.62	14.17
weight lbs.	4.41	5.51	7.28
volume tank	.06 Gal.	.09 Gal.	.14 Gal.

Connection assignments as shown in the table are standard according to DIN 24 550 T1. Are the connection assignments against DIN 24 550 T1, see item 9 of the type code.

1.2. Filter element: (ordering example)

01NL.	63.	10VG.	HR.	E.	P.	-
1	2	3	4	5	6	7

1 **series:**
01NL. = standard filter element according to DIN 24550, T3

2 **nominal size:** 40, 63, 100

3 - 7 see type index-complete filter

Changes of measures and design are subject to alteration!

EDV 08/12

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3. Spare parts:

item	qty.	designation	dimension MNL 40	MNL 63	MNL 100	article-no.	
1	1	filter element	01NL.40	01NL.63	01NL.100		
2	1	O-ring	22 x 3,5			304341 (NBR)	304392 (FPM)
3	1	O-ring	54 x 3			304657 (NBR)	304720 (FPM)
4	1	support ring	60 x 2,6 x 1			311779	
5	1	clogging indicator visual	AOR or AOC			see sheet-no. 1606	
6	1	clogging indicator visual-electrical	AE			see sheet-no. 1615	
7	1	clogging sensor electronical	VS1			see sheet-no. 1617	
8	1	clogging sensor electronical	VS2			see sheet-no. 1618	
9	1	O-ring	15 x 1,5			315357 (NBR)	315427 (FPM)
10	1	O-ring	22 x 2			304708 (NBR)	304721 (FPM)
11	1	O-ring	14 x 2			304342 (NBR)	304722 (FPM)
12	1	screw plug	20913-4			309817	

item 12 execution only without clogging indicator or clogging sensor

4. Description:

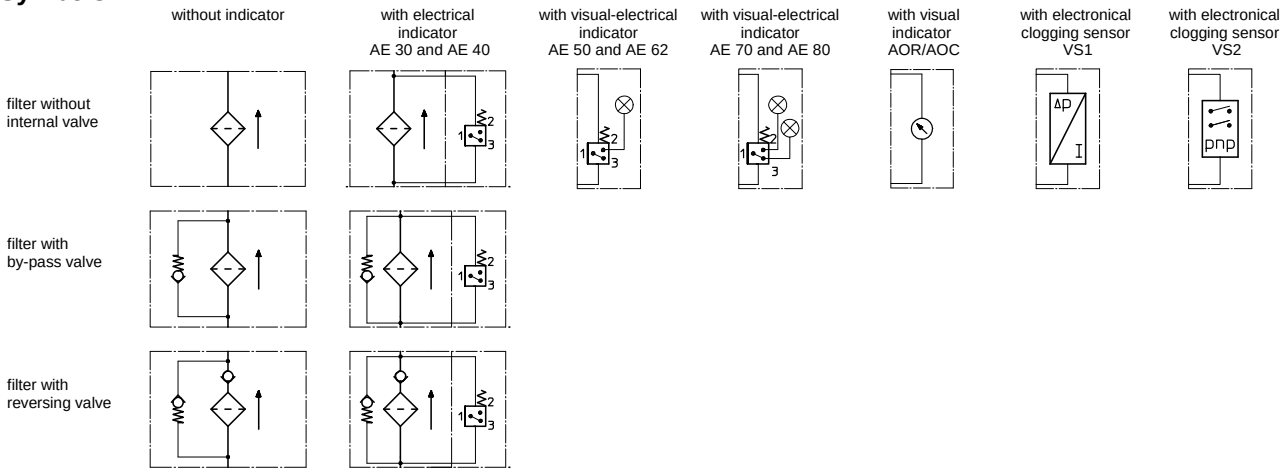
The pressure filters of the series MNL 40-100 are suitable for a working pressure up to 2320 PSI and equiped with elements according to DIN 24 550 T3.
The pressure peaks are absorbed by a sufficient margin of safety. The MNL-filter is in-line mounted.
The filter element consists of star-shaped, pleated filter material which is supported on the inside by a perforated core tube and is bonded to the end caps with a high-quality adhesive. The flow direction is from outside to the inside. Filter elements are available down to 4 $\mu m_{(c)}$.
Internormen Product Line filter elements are known as elements with a high intrinsic stability and an excellent filtration capability, a high dirt-retaining capacity and a long service life.
Internormen Product Line filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.
Internormen Product Line filter elements are available up to a pressure difference resistance of Δp 2320 PSI and a rupture strength of Δp 3625 PSI.
The internal valves are integrated into the centering pivot for the filter element.
After reaching the opening pressure the by-pass valve causes that an unfiltered partial flow passes the filter. With the reverse valve a protection of the filter element is given when having a reverse flow inside the filter. The reverse flow will not be filtered.

5. Technical data:

temperature range:	+ 14°F to + 176°F (for a short time + 212°F)
operating medium:	mineral oil, other media on request
max. operating pressure:	2320 PSI
test pressure:	3320 PSI
connection system:	thread connection
housing material:	aluminium forging alloy; C-steel
sealing material:	Nitrile (NBR) or Viton (FPM), other materials on request
installation position:	vertical

Classified under the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.
Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4).

6. Symbols:



7. Pressure drop flow curves:

Precise flow rates see 'Interactive Product Specifier', respectively Δp-curves ; depending on filter fineness and viscosity.

8. Test methods:

Filter elements are tested according to the following ISO standards:

ISO 2941 Verification of collapse/burst resistance
ISO 2942 Verification of fabrication integrity
ISO 2943 Verification of material compatibility with fluids
ISO 3723 Method for end load test
ISO 3724 Verification of flow fatigue characteristics
ISO 3968 Evaluation of pressure drop versus flow characteristics
ISO 16889 Multi-pass method for evaluating filtration performance