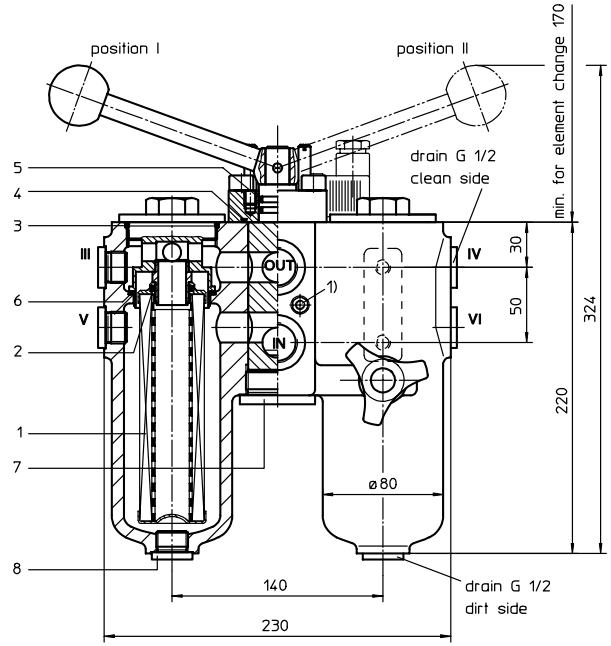
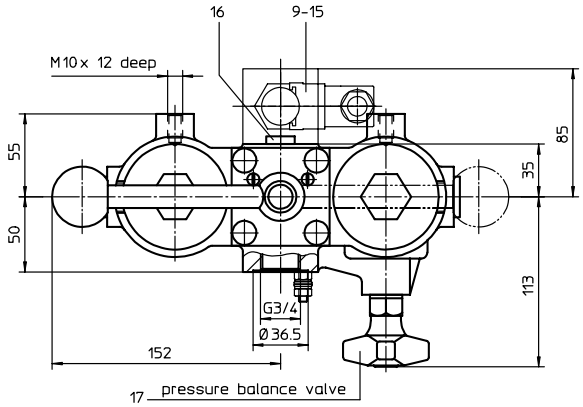
PRESSURE FILTER, change-over
Series DU 63 DN 20 PN 32

Sheet No. **2121 K**





1) connection for the potential equalisation,
only for application in the explosive area

Pos. I: left filter-side in operation
Pos. II: right filter-side in operation

measure connection III, IV: air bleeding, pressure relief G ½ - clean side
measure connection V, VI: air bleeding, pressure relief G ½ - dirt side

1. Type index:

1.1. Complete filter: (ordering example)

DU. 63. 10VG. 30. E. P. -. G. 4. -. -. AE

1	2	3	4	5	6	7	8	9	10	11	12

1 **series:**
DU = pressure filter, change-over

2 **nominal size:** 63

3 **filter-fineness and filter-material:**
80 G = 80 µm, 40 G = 40 µm, 25 G = 25 µm 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 fibre)
25 P = 25 µm, 10 P = 10 µm paper

4 **resistance of pressure difference for filter element:**
30 = Δp 30 bar

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

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

7 **filter element specification:**
- = standard
VA = stainless steel

8 **connection:**
G = thread connection according to ISO 228

9 **connection size:**
4 = G ¾

10 **filter housing specification:**
- = standard

11 **internal valve:**
- = without
S1 = with by-pass valve Δp 3,5 bar

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

1.2. Filter element: (ordering example)

01NL. 63. 10VG. 30. E. P. -

1	2	3	4	5	6	7

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

2 **nominal size:** 63

3 - 7 see type index-complete filter

2. Accessories:

- measure- and bleeder-connections, see sheet-no. 1650
- evacuation- and bleeder-connections, see sheet-no. 1651

weight: 15 kg

Changes of measures and design are subject to alt eration!

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3. Spare parts:

item	qty.	designation	dimension	article-no.	
1	2	filter element	01NL. 63		
2	2	O-ring	22 x 3,5	304341 (NBR)	304392 (FPM)
3	2	O-ring	56 x 3	305072 (NBR)	305322 (FPM)
4	1	O-ring	42,52 x 2,62	304352 (NBR)	304393 (FPM)
5	2	O-ring	18 x 3	304359 (NBR)	304399 (FPM)
6	2	O-ring	48 x 3	304357 (NBR)	304404 (FPM)
7	1	screw plug	G 1 ¼	308530	
8	6	screw plug	G ½	304678	
9	1	clogging indicator, visual	AOR or AOC	see sheet-no. 1606	
10	1	clogging indicator, visual-electrical	AE	see sheet-no. 1615	
11	1	clogging sensor, electronical	VS1	see sheet-no. 1617	
12	1	clogging sensor, electronical	VS2	see sheet-no. 1618	
13	1	O-ring	15 x 1,5	315357 (NBR)	315427 (FPM)
14	1	O-ring	22 x 2	304708 (NBR)	304721 (FPM)
15	3	O-ring	14 x 2	304342 (NBR)	304722 (FPM)
16	2	screw plug	G ¼	305003	
17	1	pressure balance valve			

item 16 execution only without clogging indicator or clogging sensor

4. Description:

Pressure filter of the series DU 63 are suitable for a working pressure up to 32 bar.
The pressure peaks are absorbed by a sufficient margin of safety.
Rotary slide valve which is integrated in the middle of the housing makes it possible to switch from the dirty filter-side to the clean filter-side without interrupting operation. These filters can be installed as suction-filters.
The filter element consist 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 finer than 40 µm should use throw-away elements made of paper or Interpor fleece (glass fibre).
Filter elements as fine as 5 $\mu m_{(c)}$ are available; finer filter elements on request.
INTERNORMEN-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-Filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.
Approvals according to TÜV, and the major „Shipyard Classification Societies“ D.N.V.; B.V.; G.L.; L.R.S.; R.I.N.A.; A.B.S. and others are possible.
The internal valve is integrated in the filter cover. After reaching the opening pressure the by-pass valve causes that an unfiltered partial flow passes the filter.

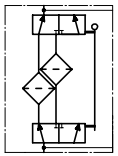
5. Technical data:

temperature range:	- 10°C to + 80°C (for a short time + 100°C)
operating medium:	mineral oil, other media on request
max. operating pressure:	32 bar
test pressure:	64 bar
connection system:	thread connection according to ISO 228
housing material:	EN-GJS-400-18-LT
sealing material:	Nitrile (NBR) or Viton (FPM), other materials on request
installation position:	vertical
mini-measuring connections:	G ½
evacuation-or bleeder connections:	G ½
volume tank:	2x 0,65 l

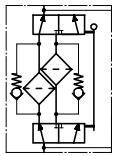
Classified under the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.
Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4).

6. Symbols:

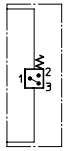
without indicator



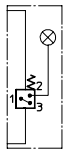
with by-pass valve



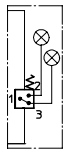
with electrical indicator
AE 30 and AE 40



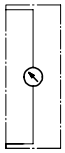
with visual-electrical indicator
AE 50 and AE 62



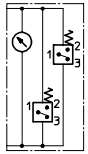
with visual-electrical indicator
AE 70 and AE 80



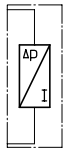
with visual indicator
OP



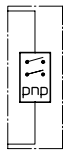
with visual-electrical indicator
OE



with electronical clogging sensor
VS1



with electronical clogging sensor
VS2



7. Pressure drop flow curves:

Precise flow rates see ‘INT-Expert-System Filter’, 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