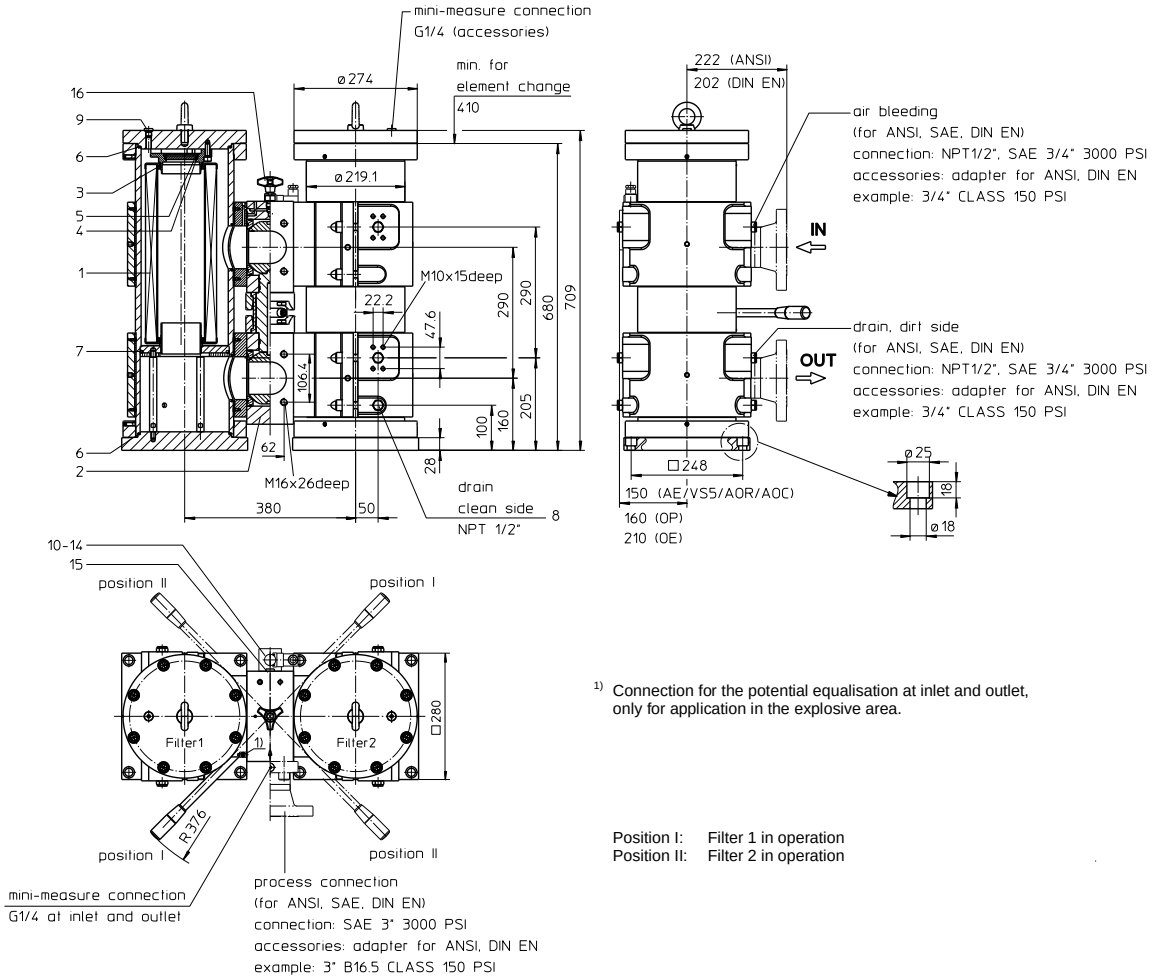
STAINLESS STEEL-PRESSURE FILTER, change-over
Series EDA 1014 NPS 3“ CLASS 150 PSI

Sheet No. **2175 D**



1) Connection for the potential equalisation at inlet and outlet, only for application in the explosive area.

Position I: Filter 1 in operation
Position II: Filter 2 in operation

1. Type index:

1.1. Complete filter: (ordering example)

EDA. 1014. 10VG. 10. B. P. VA. FS. A. -. -. AE. AV. IS21. F. F

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

1 series:
EDA = stainless steel-pressure filter change-over, according to ASME-code

2 nominal size: 1014

3 filter-material and filter- fineness:
80 G = 80 µm, 40 G = 40 µm, 25 G = 25 µm, 10 G = 10 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 $\mu m_{(c)}$ microglass
25 API = 20 µm, 10 API = 10 µm microglass according to API
10 P = 10 µm paper

4 resistance of pressure difference for filter element:
10 = Δp 10 bar

5 filter element design:
B = both sides open

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

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

8 process connection:
FS = SAE-flange connection 3000 PSI
FA11 = ANSI-flange connection CLASS 150 PSI, sealing surface R_z = 160 µm (not finer than 40 µm)
FA12 = ANSI-flange connection CLASS 150 PSI, sealing surface R_z = 16 µm
FD1 = flange connection DIN EN 1092-1, design B1
FD2 = flange connection DIN EN 1092-1, design B2

9 process connection size:
A = 3“

10 filter housing specification: (material) see sheet-no. 55050
- = standard, per according to specification pressure vessel DGRL (1.4404) / ASME type 316L

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

12 clogging indicator or clogging sensor:
- = without, OP = visual, see sheet-no. 1628
AOR = visual, see sheet-no. 1606, OE = visual-electrical, see sheet-no. 1628
AOC = visual, see sheet-no. 1606, VS5 = electronical, see sheet-no. 1641
AE = visual-electrical, see sheet-no. 1609

13 shut-off valve:
- = without, AV = shut-off valve, see sheet-no. 1655

14 specification pressure vessel:
- = standard (PED 2014/68/EU)
IS20 = ASME VIII Div.1 with ASME equivalent material, see sheet-no. 55217
IS21 = ASME VIII Div.1 with U-stamp, see sheet-no. 43415
IS23 = ASME VIII Div.1 without U-stamp, see sheet-no. 55218

15 switch lever:
F = toward IN/OUT, B = opposite IN/OUT

16 air bleeding/drain:
F = toward IN/OUT, B = opposite IN/OUT

1.2. Filter element: (ordering example)

01NR. 1000. 10VG. 10. B. P. VA

1	2	3	4	5	6	7

1 series:
01NR. = standard-return-line filter element according to DIN 24550, T4

2 nominal size: 1000

3 - 7 see type index complete filter

weight: approx. 370 kg

Changes of measures and design are subject to alteration!

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2. Accessories:

- SAE-counter flanges, see sheet-no. 1652
- adapter for connection acc. to EN1092-1, see sheet-no. 1657
- adapter for ANSI-connection B16.5 CLASS 150 PSI, see sheet-no. 1658
- measure- and bleeder-connections, see sheet-no. 1650
- drain- and bleeder connection, see sheet-no. 1659

3. Spare parts:

item	qty.	designation	dimension	article-no.	
1	2	filter element	01NR.1000 ...		
2	1	change over UKK	3“ (DN80)		
3	4	O-ring	90 x 4	306941 (NBR)	307031 (FPM)
4	2	O-ring	62 x 4	308045 (NBR)	311472 (FPM)
5	2	circlip	DIN472-75x2,5-1.4310	318481	
6	4	O-ring	200 x 4	334555 (NBR)	334554 (FPM)
7	2	O-ring	185 x 6	335381 (NBR)	335306 (FPM)
8	12	screw plug	NPT ½	307766	
9	2	screw plug	G ¼	306968	
10	1	clogging indicator, visual	AOR or AOC	see sheet-no. 1606	
11	1	clogging indicator, visual-electrical	OP	see sheet-no. 1628	
12	1	clogging indicator, visual-electrical	OE	see sheet-no. 1628	
13	1	clogging indicator, visual-electrical	AE	see sheet-no. 1609	
14	1	clogging sensor, electronical	VS5	see sheet-no. 1641	
15	2	screw plug	G ¼	306968	
16	1	pressure balance valve	DN10	310316	

item 15 execution only with clogging indicator or clogging sensor

4. Description:

Stainless steel-pressure filters, change-over series EDA 1014 are suitable for operating pressure up to 40 bar.
Pressure peaks can be absorbed with a sufficient margin o safety.
Change-over ball valve which, 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.
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.
These filters can be installed as suction filters.
For cleaning (see special leaflet 21070-4 and 34448-4) the mesh element respectively to change the microglass element remove the cover and take out the element.
Filter finer than 40 µm should use throw-away elements made of paper or microglass). Filter elements as fine as 5 $\mu m_{(c)}$ are available; finer filter elements on request.
Eaton 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.
Eaton filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.
Ship classifications available upon request.

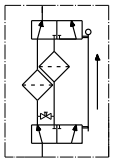
5. Technical data:

operating pressure:	- 10°C to +100°C
operating medium:	mineral oil, other media on request
max. operating pressure (pressure vessel):	40 bar
test pressure acc. to PED 2014/68/EU:	1,43 x operating pressure = 57 bar
test pressure acc. to ASME VIII Div. 1:	1,3 x operating pressure = 52 bar
test pressure acc. to API 614, Chapter 1:	1,5 x operating pressure = 60 bar
connection system:	SAE-flange 3000 PSI
housing material:	stainless steel, see sheet-no. 55050
sealing material:	Nitrile (NBR) or Viton (FPM), other materials on request
installation position:	vertical
bleeder connection :	NPT ½“ and SAE ¾“ 3000 PSI
drain connection dirt side :	NPT ½“ and SAE ¾“ 3000 PSI
drain connection clean side :	NPT ½“
volume tank :	2x 19 l
operating pressure adapter flanges:	according to B16.5 CLASS 150 PSI / DIN EN 1092-1 (max. 16 bar)

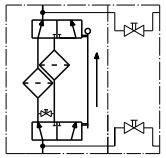
Classified under the Pressure Equipment Directive 2014/68/EU for mineral oil (fluid group 2), Article 4, Para. 3.
Classified under ATEX Directive 2014/34/EU according to specific application (see questionnaire sheet-no. 34279-4)

6. Symbols:

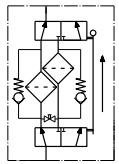
without indicator



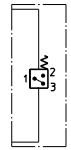
with shut-off valve



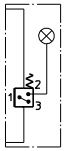
with by-pass valve



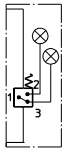
with electrical indicator
AE 30 and AE 40



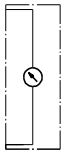
with visual-electrical indicator
AE 50 and AE 62



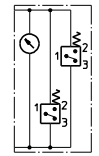
with visual-electrical indicator
AE 70 and AE 80



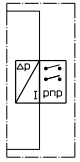
with visual indicator
AOR/AOC/OP



with visual-electrical indicator
OE



with electronical sensor
VS5



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