Sheet No. 2239 C

26.77

extension

for

51.575 52.874

# Series EDWF 6005 232 PSI

А В 4100 0000 1) Connection for the potential equalization, 2)  $\underset{I}{\text{position I}}^{2)}$ only for application in the explosive area. position II Ŗ .866 dia Switch lever standard in the front. 2) On request: The switch lever can be moved to backside of the changeover valve, opposite to the inlet and outlet. Please specify this configuration on the order. Eilte Filter1 Ð \_ Ð position II Position I: Filter 1 in operation 1) position I Position II: Filter 2 in operation pressure balance valve 2clogging indicator, optional air bleeding G1/2-21.260 dia 2.1 ۲ ٢ ¢ 3.1 IN IN 3.2 р1-3.3-3 16.000 dia 3.4 3.5 Э OUT drain BSPP 1 ουτ ⇒ dirt side p2 25.197 425 Π 90. drain BSPP 1) .087 394 clean side process connection ANSI B16.5

p1/p2 = mini measuring connection BSPP1/4

### **Dimensions:**

process connection	Α	В	С	D	E	weight	volume tank
6"	58.11	34.48	17.32	8.14	16.92	1466 lbs.	2x 34 Gal.
8"	60.47	36.85	20.47	9.60	21.26	1653 lbs.	2x 34 Gal.

CLASS 150 PSI



Dimensions: inches Designs and performance values are subject to change.

## Pressure Filter, changeover Series EDWF 6005 232 PSI

### **Description:**

Duplex filter series EDWFA 6005 have a working pressure up to 232 PSI. Pressure peaks can be absorbed with a sufficient safety margin.

A changeover ball valve between the two filter housings makes it possible to switch from the dirty filter side to the clean filter side without interrupting operation. The filters can be installed as a suction filter, pressure filter or return line filter.

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 inside.

For cleaning the stainless steel mesh element or changing the element, remove the cover and take out the element. The mesh elements are not guaranteed to maintain 100% performance after cleaning.

For filtration finer than 25  $\mu$ m, use the disposable elements made of microglass. Filter elements as fine as 3 µm are available; finer filter elements are available upon request.

Eaton filter elements are known for high intrinsic stability and an excellent filtration capability, a high dirt-retaining capacity and a long service life.

Eaton filters are suitable for all petroleum based fluids, HWemulsions, most synthetic hydraulic fluids and lubrication oils.

Ship classifications available upon request.

### Type index:

Complete filter: (ordering example)

EDWF.	6005.	10VG.	10.	E.	Ρ.	VA.	FA11.	Е.	VA.	
1	2	3	4	5	6	7	8	9	10	11
KH. O	E									

#### 12 13

1 series:

- EDWF = stainless steel-double welded filter
- 2 nominal size: 6005

#### 3 filter material:

80G, 40G, 25G, 10G stainless steel wire mesh 25VG, 16VG, 10VG, 6VG, 3VG microglass 25API, 10API microglass according to API

- 4 filter element collapse rating:
- 10 = ∆p 145 PSI

#### filter element design: 5

- = without by-pass F
  - = with by-pass valve ∆p 29 PSI
- 6 sealing material:

S

v

- Ρ = Nitrile (NBR)
  - = Viton (FPM)
- 7 filter element specification:
  - = standard
  - VA = stainless steel
  - IS06 = for HFC application, see sheet-no. 31601

#### 8 process connection:

- FA11 = flange ANSI CLASS 150 PSI.
- sealing surface rough grind 1600-3600 µin = flange ANSI CLASS 150 PSI, FA12
  - sealing surface rough grind < 640 µin

#### 9 process connection size:

- D = 6"
- Е = 8" (standard)
- 10 filter housing specification: VA

#### = stainless steel 11 specification pressure vessel:

- = standard (PED 2014/68/EU)
  - IS20 = ASME VIII Div.1 with ASME equivalent material, see sheet-no. 55217
- 12 shut-off : = without
  - ĸн = with shut-off ball valve
- 13 clogging indicator or clogging sensor:
  - = without
  - AE visual-electrical, see sheet-no. 1609
  - OP = visual, see sheet-no. 1614
  - OE = visual-electrical, see sheet-no. 1614
  - VS5 = electronic, see sheet-no. 1641

To add an indicator/sensor to your filter, use the corresponding indicator data sheet to find the indicator details and add them to the filter assembly model code.

#### Filter element: (ordering example)

01E.	1501.	10VG.	10.	E.	Ρ.	VA
1 4						-

4 5 6

1 series:

- 01E = filter element according to company standard
- 2 nominal size: 1501 - 7 see type index-complete filter 3

#### Accessories:

- drain- and bleeder connection, see sheet-no. 1651
- lifting mechanism, see sheet-no. 1662

### **Technical data:**

operating temperature: operating medium: max. operating pressure: test pressure: standard process connection: housing material: sealing material: installation position: bleeder connections: drain connections: measure connections: +14 °F to +212 °F mineral oil, other media on request 232 PSI 333 PSI flange ANSI B16.5 CLASS 150 PSI stainless steel Nitrile (NBR) or Viton (FPM), other materials on request vertical BSPP ½ BSPP 1 BSPP 14

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).

### Pressure drop flow curves:

### Filter calculation/sizing

The pressure drop of the assembly at a given flow rate Q is the sum of the housing  $\Delta p$  and the element  $\Delta p$  and is calculated as follows:

 $\Delta p$  assembly =  $\Delta p$  housing +  $\Delta p$  element  $\Delta p$  housing = (see  $\Delta p = f(Q)$  - characteristics)

$$\Delta p_{element}(PSI) = Q (GPM) x \frac{MSK}{1000} \left(\frac{PSI}{GPM}\right) x v(SUS) x \frac{\rho}{0.876} \left(\frac{kg}{dm^3}\right)$$

For ease of calculation, our Filter Selection tool is available online at: www.eaton.com/hydraulic-filter-evaluation

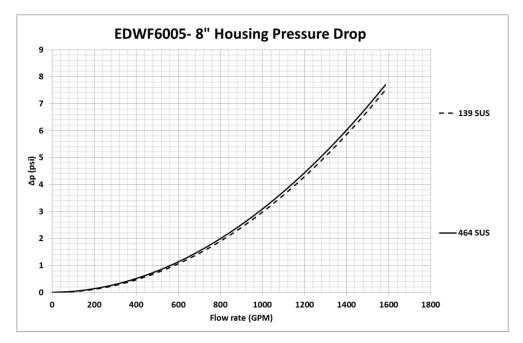
#### Material gradient coefficients (MSK) for filter elements

The material gradient coefficients in psi/gpm apply to mineral oil (HLP) with a density of 0.876 kg/dm<sup>3</sup> and a kinematic viscosity of 139 SUS (30 mm<sup>2</sup>/s). The pressure drop changes proportionally to the change in kinematic viscosity and density.

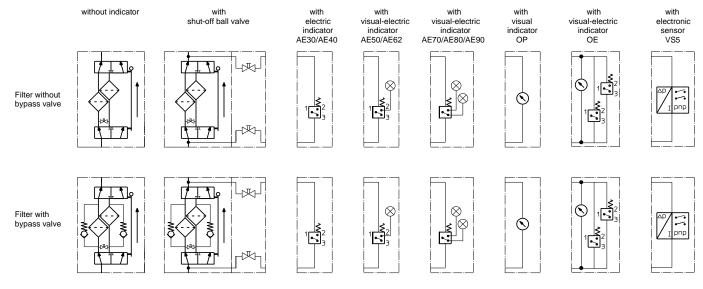
EDWF	EDWF VG			G				API			
	3VG	6VG	10VG	16VG	25VG	10G	25G	40G	80G	10 API	25 API
6005	0.048	0.033	0.021	0.019	0.013	0.0018	0.0013	0.0012	0.0008	0.012	0.005

#### △p=f(Q) – characteristic according ISO 3968

The pressure drop characteristics apply to mineral oil (HLP) with a density of 0.876 kg/dm<sup>3</sup>. The pressure drop changes proportionally to the density. The flow curve for 6" available on request.



### Symbols:



#### Spare parts:

item	qty.	designation	dimension	artikl	e-no.
1	8	filter element	01E.1501		
2	1	gasket kit for filter housing:			
2.1	2	O-ring	429 x 6	308659 (NBR)	310273 (FPM)
3	1	gasket kit of switching over UKK150 consisting of:	6" (DN150)	355320 (NBR)	
3.1	4	O-ring	234 x 5,33		
3.2	4	O-ring	185 x 6		
3.3	4	gasket	DN150		
3.4	2	O-ring	55 x 3,5		
3.5	2	support ring	61,5 x 56,2 x 5		
3	1	gasket kit of switching over UKK200 consisting of:	8" (DN200)	355381 (NBR)	354701 (FPM)
3.1	4	O-ring	290 x 5		• • •
3.2	4	O-ring	220 x 6		
3.3	4	gasket	DN200		
3.4	2	O-ring	53 x 3,55		
3.5	2	support ring	60 x 5,9 x 5		

### 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

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