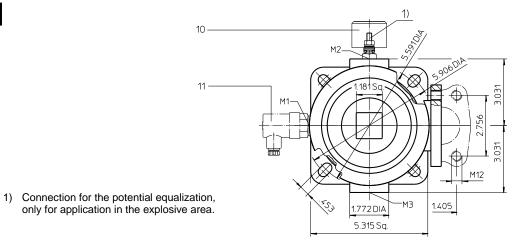
Series TEF 426 145 PSI



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weight: approx. 5.7 lbs.

Dimensions: inches

Designs and performance values are subject to change.

Return Line Filter Series TEF 426 145 PSI

Description:

Return-line filter series TEF 426 have a working pressure up to 145 PSI. Pressure peaks will be absorbed by a sufficient margin of safety.

The TEF-filters are directly mounted to the reservoir and connected to the return-line.

The filter element consists of a 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 is from outside to inside

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

Filters finer than 40 μm use the disposable 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 stable elements which have excellent filtration capabilities and a high dirt retaining capacity, therefore having a long service life. Due to its practical design, the return-line filter is easy to service.

Eaton filter can be used for petroleum-based fluids, HW emulsions, water glycols, most synthetic fluids and lubrication fluids. Consult factory for specific fluid applications.

When changing the filter element, a detachable connection between the filter head and the filter bowl prevents dirty oil from flowing into the tank.

Type index:

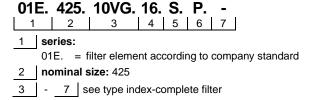
Complete filter: (ordering example)

TEF. 426. 10VG. 16. S. P. -. FS. 7. -. E1. O. -. 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 series: TEF = tank-mounted return-line-filter nominal size: 426 3 filter-material: 80G, 40G, 25G stainless steel wire mesh 25VG, 16VG, 10VG, 6VG, 3VG microglass 10P paper 4 | filter element collapse rating: 16 = ∆p 232 PSI 5 filter element design: = without by-pass valve Ε = with by-pass valve Δp 29 PSI S1 = with by-pass valve Δp 51 PSI 6 sealing material: = Nitrile (NBR) = Viton (FPM) 7 | filter element specification: (see catalog) = standard IS06 = for HFC applications, see sheet-no. 31601 process connection: FS = SAE-flange 3000 PSI 9 process connection size: = 1 1/2" 10 | filter housing specification: (see catalog) = standard IS06 = for HFC applications, see sheet-no. 31605 IS10 = for ATEX, see sheet-no. 68267 IS11 = for mining applications, see sheet-no. 40530 11 clogging indicator at M1: = without 0 = visual, see sheet-no. 1616 F1 = pressure switch, see sheet-no. 1616 = pressure switch, see sheet-no. 1616 F2 = pressure switch, see sheet-no. 1616 PΑ = ground connection 12 | clogging indicator at M2: possible indicators see position 11 of the type index 13 clogging indicator at M3: possible indicators see position 11 of the type index 14 permanent magnet:

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

1.2. Filter element: (ordering example)

withoutwith magnet



Accessories:

- SAE-counter flange, see sheet-no. 1652

Technical data:

operating temperature: 14 °F to +212 °F

operating medium mineral oil, other media on request

145 PSI max. operating pressure: opening pressure by-pass valve: 29 PSI; 51 PSI process connection: SAE-flange 3000 PSI

housing material standard: filter head AL, screw plug / filter bowl glass fiber reinforced polyamide housing material IS10, category 2 and 3: filter head AL, screw plug / filter bowl carbon fiber reinforced polyamide housing material IS11, category M2: filter head GG, screw plug steel / filter bowl carbon fiber reinforced polyamide Nitrile (NBR) or Viton (FPM), other materials on request

sealing material:

vertical installation position: volume tank: .65 Gal

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 Δp and the element Δp and is calculated as follows:

 Δp assembly = Δp housing + Δp element

 $\Delta p_{housing} = (see \Delta p = f(Q) - characteristics)$

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

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

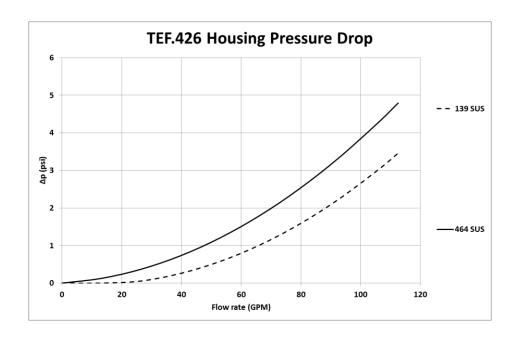
Material gradient coefficients (MSK) for filter elements

The material gradient coefficients in psi/gpm apply to mineral oil (HLP) with a density of 0.876 kg/dm³ and a kinematic viscosity of 139 SUS (30 mm²/s). The pressure drop changes proportionally to the change in kinematic viscosity and density.

TEF	VG					G			Р
	3VG	6VG	10VG	16VG	25VG	25G	40G	80G	10P
426	0.849	0.589	0.377	0.328	0.224	0.0270	0.0252	0.0172	0.182

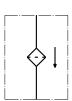
$\Delta p = f(Q) - characteristics according to ISO 3968$

The pressure drop characteristics apply to mineral oil (HLP) with a density of 0.876 kg/dm³. The pressure drop changes proportionally to the density.



Symbols:

without indicator



with by-pass valve

M1

Μ2

МЗ

visual O

electric contact maker E1 electric contact breaker E5 electric contact maker/breaker E2











Spare parts:

item	qty.	designation	dimension	article-no.			
1	1	filter element	01.E425				
2	1	filter head					
3	1	filter bowl	NG 426				
4	1	screw plug	M 120 x 3				
5	1	O-ring	128 x 3	304602 (NBR)	308140 (FPM)		
6	1	O-ring	98 x 4	301914 (NBR)	304765 (FPM)		
7	1	O-ring	44 x 6	302222 (NBR)	304384 (FPM)		
8	1	O-ring	115 x 3	303963 (NBR)	307762 (FPM)		
9	1	spring	DA = 63,5	304983			
10	1	clogging indicator visual	0	see sheet-no. 1616			
11	1	clogging indicator electric	E1, E2 or E5	see sheet-	see sheet-no. 1616		

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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