GLENTOR

Hydraulic Filters of FG 10 series

Determination

This description is valid for the whole series (all types) of FG 10 Filters, i.e. for basic type FG 10 M 10 without clogging indicator and its variants FG 10 M 10 V with mechanical (visual) indicator as well as FG 10 M 10 E with electrical indicator.
Filter is delivered with filter element FE 10- M 10.

Description

Filter consists of bowl, head, pressure relief valve and filter element. In filters with clogging indicator, a mechanical or electrical indicator Mahle is mounted.
The bowl and head are made of high strength light metal. Pressure relief valve protects the filter element against overrunning the permitted pressure difference. The flow direction is marked by an arrow on the head top.
The filter element consists of a perforated inner pipe, caps and a star pleat. The star pleat consists of the fine and coarse fiber-glass fabric, protective fleece and two layers of support fabric (wire-mesh).

Function

Hydraulic fluid enters the filter throw inlet port, flows into filter element from outside to inside, further through the centre boring in the head to outlet port. The filter element is clogged during operation with contaminants and therefore the pressure difference on the filter element rises. If the pressure difference on the filter element exceeds the set up value of clogging indicator (in the filter with an indicator) relief valve opens and most fluid flows directly from the inlet to the outlet port without being filtered.

Installation

The filters are designed for pipeline installation. Filter should be installed in approximately vertical position, with its head upwards. The flow direction through the filter is marked with an arrow on filter head. Two threaded borings in the filter head serve for fastening the filter in a machine.
It is necessary to let some free space under the filter bowl for changing the filter element.

Technical data

Nominal size		10 mm
Pressure	- nominal	120 bar
	- maximum	160 bar
Pressure difference	- opening the pressure relief valve	8 ± 1 bar
	- signalling of clogging indicator (in filters with indicator)	5 – 0,5 bar
Flow	- nominal	25 dm^3 min^{-1}
	- maximum	40 dm^3 min^{-1}
Fluid		mineral hydraulic oils
Temperature of	- working fluid	-20 to 80 °C
	- ambient	-20 to 60 °C

Fluid viscosity - recommended range	$(20 \text{ to } 65).10^6$	m^2s^{-1} (20 to 60 cSt)
- minimum	8.10^6	m^2s^{-1} (8 cSt)
- maximum	400.10^6	m^2s^{-1} (400 cSt)
Mass (weight)	1,3 kg	
Filter element	FE10 M10	

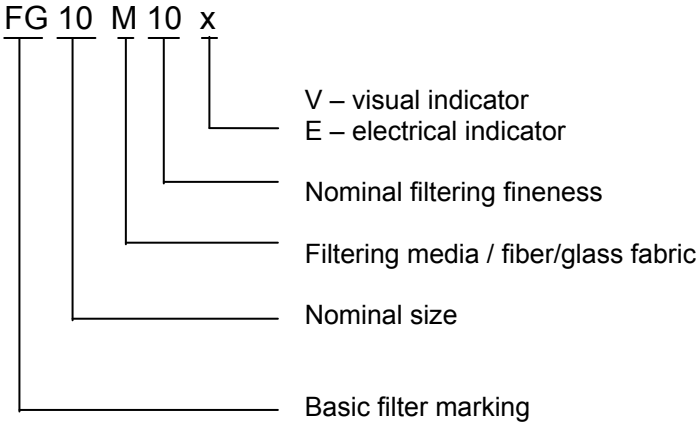
Filter element technical data

Pressure difference on the filter element	
- maximum working	6 bar
- maximum	10 bar
- collapse	20 bar
Filtering fineness (capacity)	10 µm ($\beta_{10} > 75$)

Clogging indicator

V - visual		Mahle, type PIS 3098
E - electric		Mahle, type PIS 3097
electrical date	max. voltage	230 V DC / AC
	max. current	2,5 A
	switching power	60 VA / 40 W
	protection class	IP 65
	function	switch on or switch off

Specification for order:



Conditions to operation

No service of the filter is needed. The only service work is a change of filter element after the maximum working pressure is reached. This change should be made either in correspondence with the clogging indicator signal or in regular service intervals given by the user (when the filter has not an indicator).

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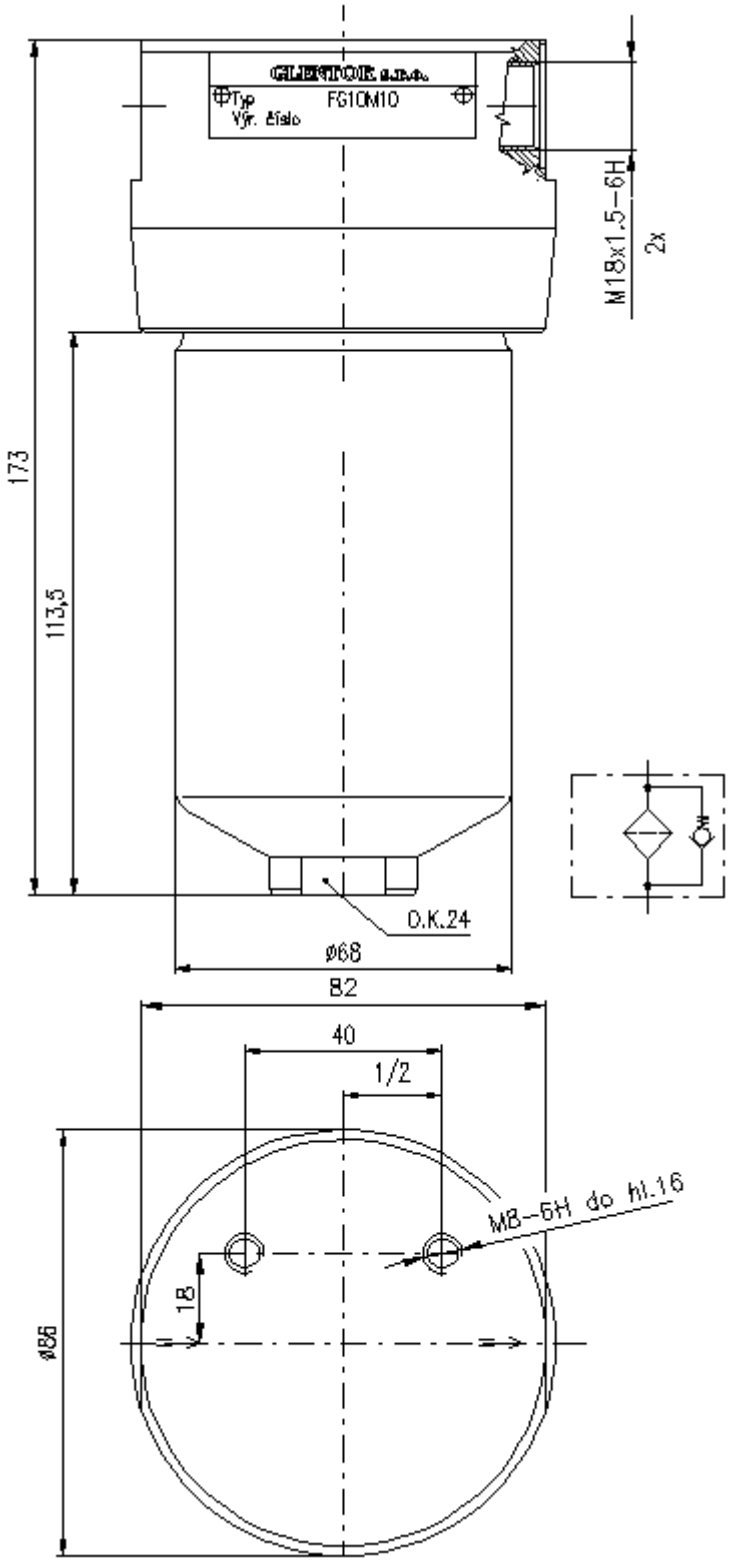
FILTER FG10M10



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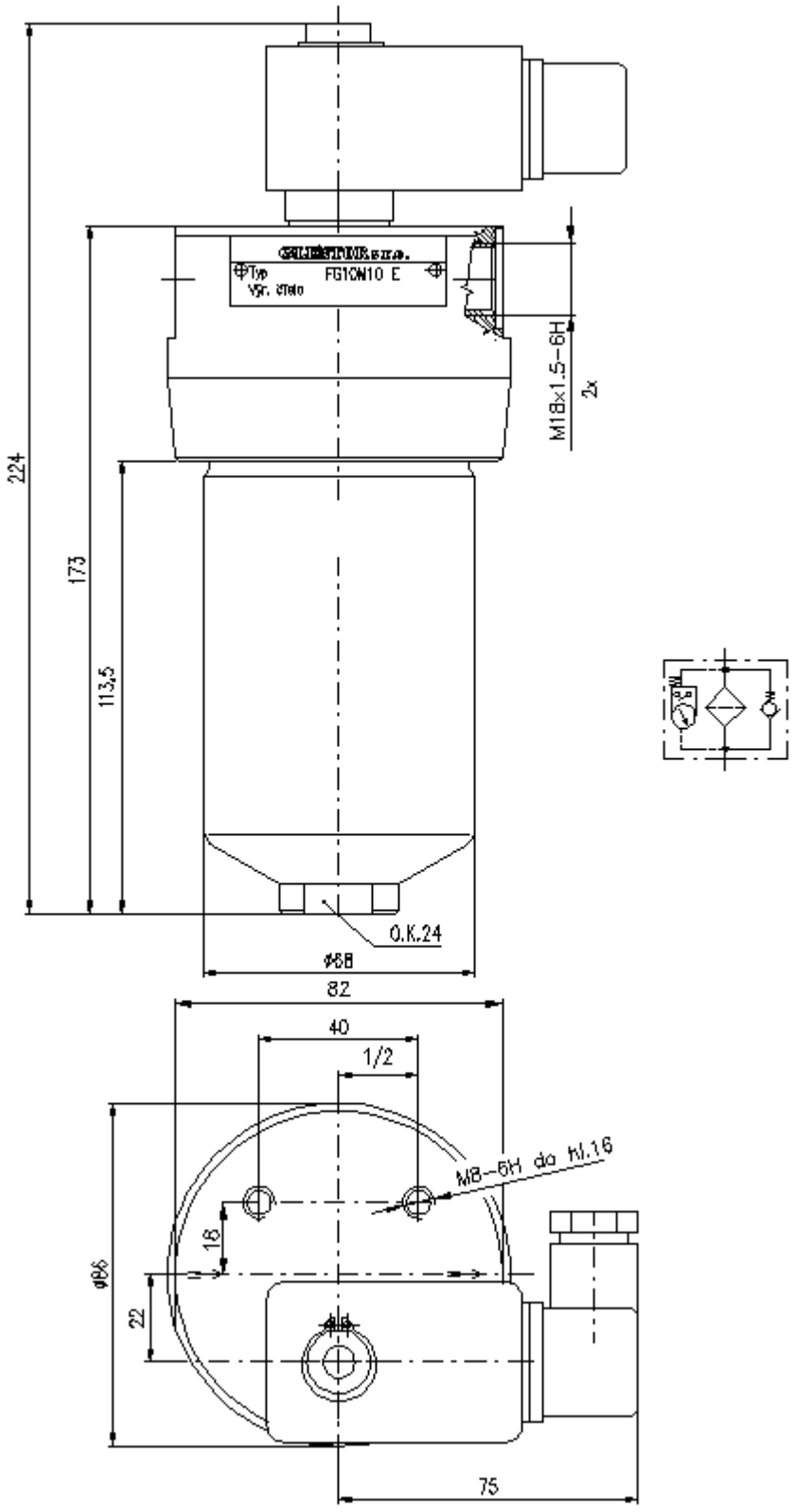
FILTER FG10M10 E

with eletrical signalisation



FILTER FG10M10 V

with visual signalisation