

The basics of compressed air

# Filter regulator

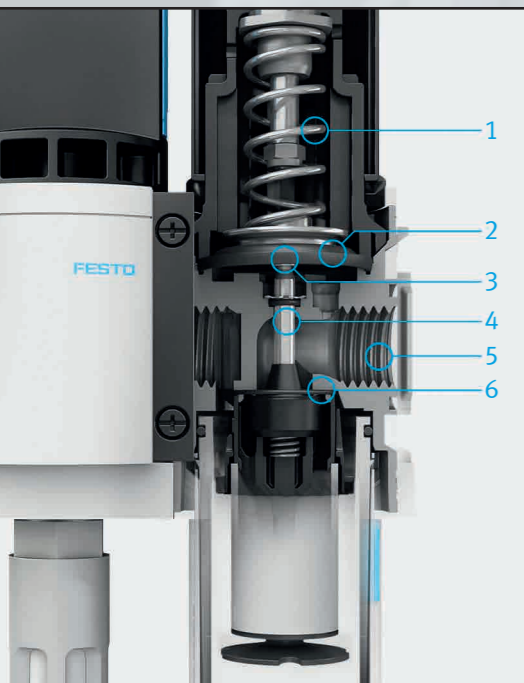
The filter regulator (LFR) forms the basis for compressed air preparation in every machine. In addition to the control function for regulating the pressure, the LFR also removes condensate to ensure the quality of the compressed air.

FESTO

LFR

Regulating

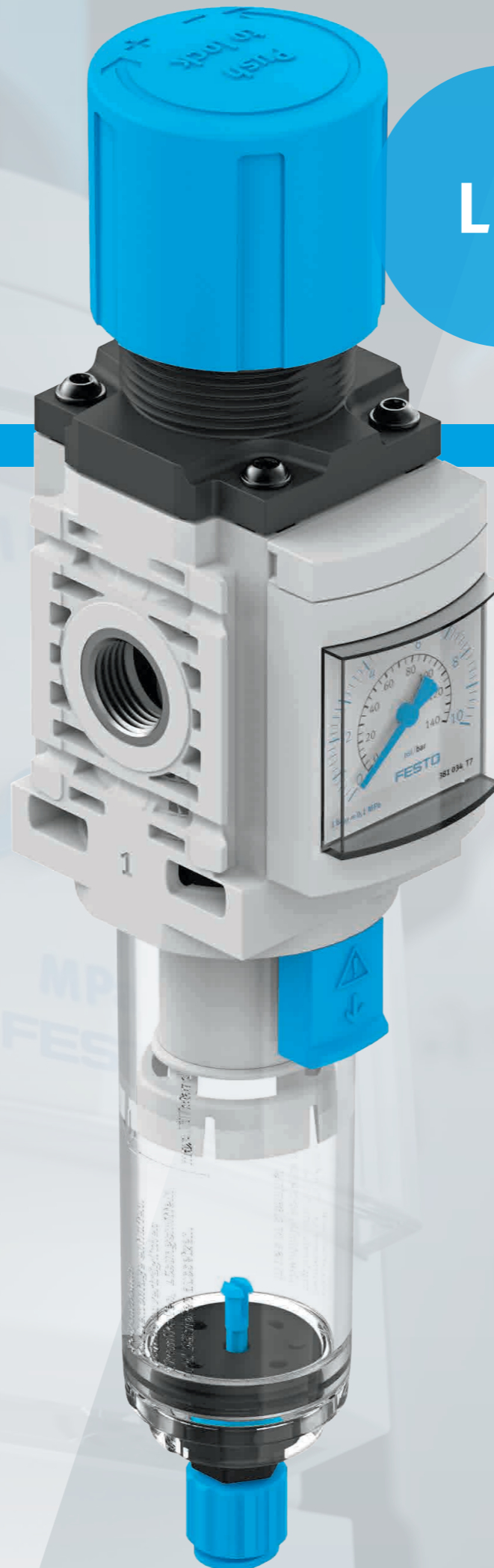
Quality



### Pressure regulator function

The regulator piston [4] moves downwards with the diaphragm and releases the bottom sealing seat [6].

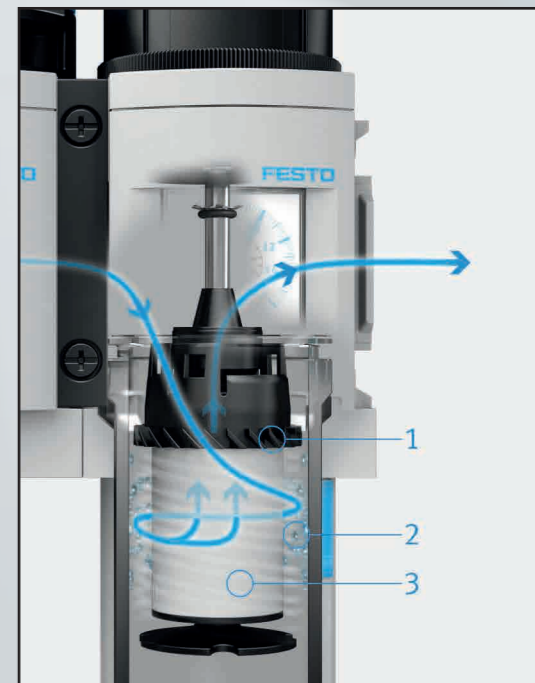
When the pressure at air port [5] exceeds the set operating pressure, the air can escape via a different sealing seat in the diaphragm (secondary exhausting).



### Filter function

The compressed air is first guided through a set of vanes [1] that create turbulence. This centrifugal action causes the water droplets present in the compressed air to be flung against the walls of the bowl by centrifugal force.

The water is collected below in the bowl and can be drained off manually or automatically. Before the compressed air can escape, it is passed through a filter. This ensures that the particles present in the air - up to a certain size - are caught by the filter. The size of the particles is dependent on the type of filter that is used.



### Easy ordering: 2 components with 1 part number

Two important parts in one component.

The EM1FR fulfils three essential functions:

- Switch on using manual operation
- Pressure regulation with the filter reducer
- Filtration and condensate removal in the bowl
- Possible to lock LOTO on the manual valve

