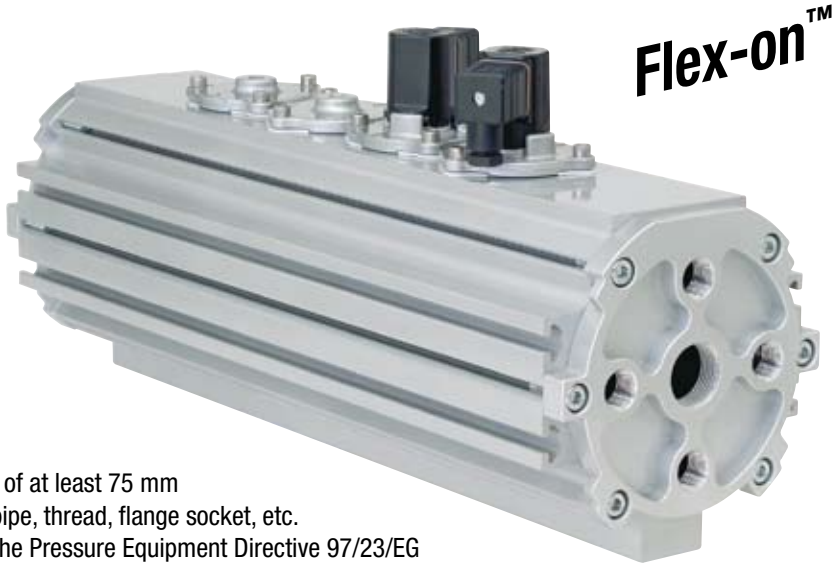
System for Dust Collector

For air
With integrated filter valves
Ø 135 mm diameter for DN 25 valves
Working pressure 0.4 to 8 bar

8589XXX



Description (standard)

- Choice of virtually any number of valves at spacing of at least 75 mm
- Different blow-tube connections available include pipe, thread, flange socket, etc.
- Modular system manufactured from aluminium to the Pressure Equipment Directive 97/23/EG
- Integrated filter pulse valve with TPE diaphragm for rapid response, high peak pressures and very good flow rates
- Actuating solenoids with cULus ATEX Zone 21/22 approvals available

Working pressure:	0.4 to 8 bar (pulsating)
Medium temperature:	–20 °C to max. +80 °C
Ambient temperaturer:	–20 °C to max. +80 °C
Mounting position:	as required
Diameter:	Ø 135 mm
Volume:	0.14 dm^3 /cm of tank length
Minimum spacing:	75 mm

Materials

Housing:	Aluminium / PA 66
Seat seal:	TPE
Pilot seal:	TPU

Features

- High flow rate
- Individual length of the filter cleaning system up to max. 1.2 m completely mounted
- Flexible configurable filter cleaning system
- Mounting parts: electronic control, purge valve for measuring pipes of differential pressure regulator, differential pressure regulator, cable channel

D118102.01
09/09

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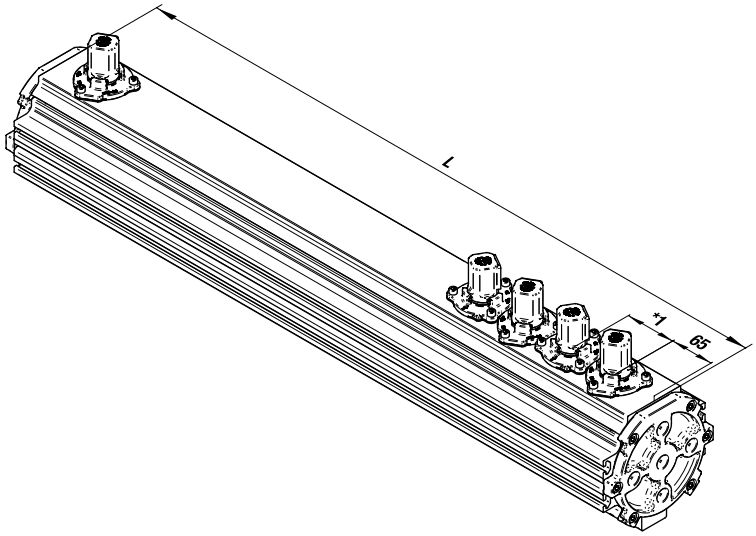
NORGREN FLUID CONTROLS

Examples for mounting parts

Solenoid or externally actuated valve



*1) Min. 75 mm, but max.
to customer requirement

Solenoid 8171

Standard voltages

DC ⎓	AC ~ 50 Hz	60 Hz
24 V	24 V	24 V
-	110 V	120 V
-	230 V	-

Design acc. to DIN VDE 0580
Voltage range ±10 %
100 % duty cycle
Protection class acc. to EN 60529 IP65
Socket Form A acc. to DIN EN 175301-803

Power consumption

According to DIN VDE 0580 at coil temperature +20 °C. In operating the solenoid coil decrease the power consumption appr. 30 %.

Solenoid	DC ⎓	AC ~ Inrush	Holding
8171 *	12 W	23 VA	16 VA / 8 W

* c SP us coil only maintaining the ambient temperature of +65 °C

Further options (Solenoids)

XXXXXXX.**8176** Solenoid in protection class
Ex II 3 GD EEx nA II T4 T 135 °C

XXXXXXX.**8186** Solenoid in protection class
Ex II 2 GD EEx me II T4 T 140 °C

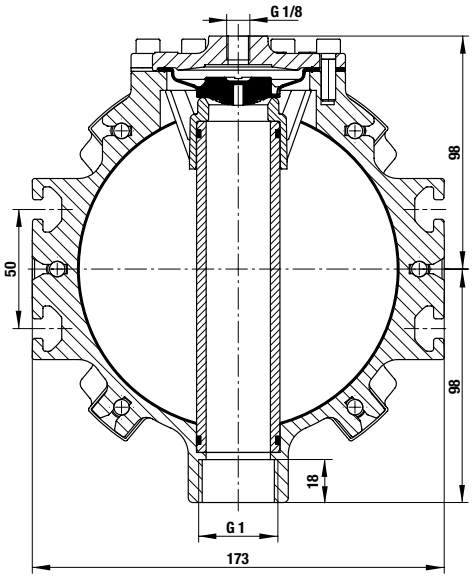
On request Further versions

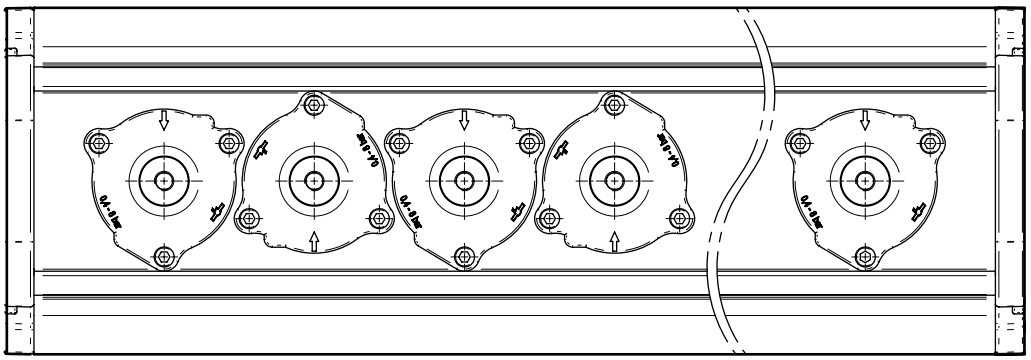
Further options (Filter Cleaning System)

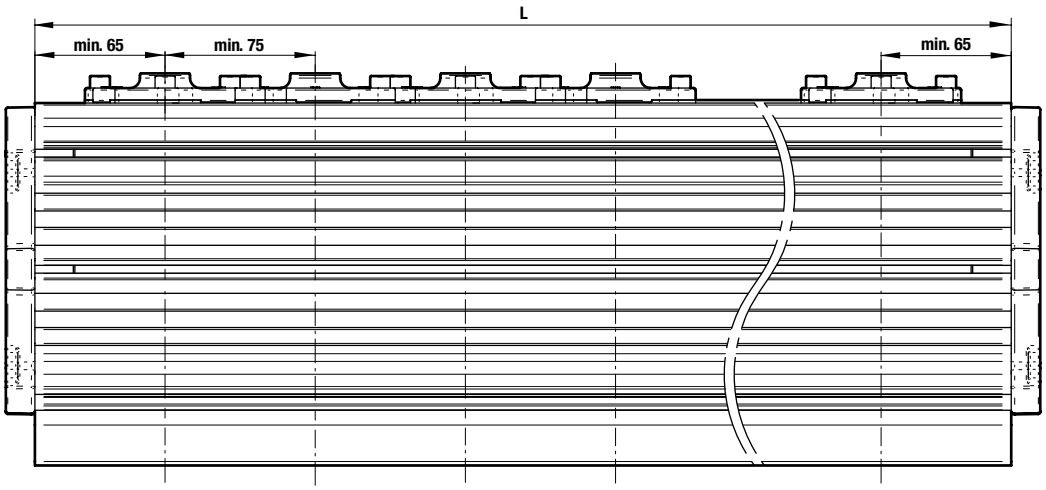
On request Connection for condensate drain

Section View

Remote pilot operated

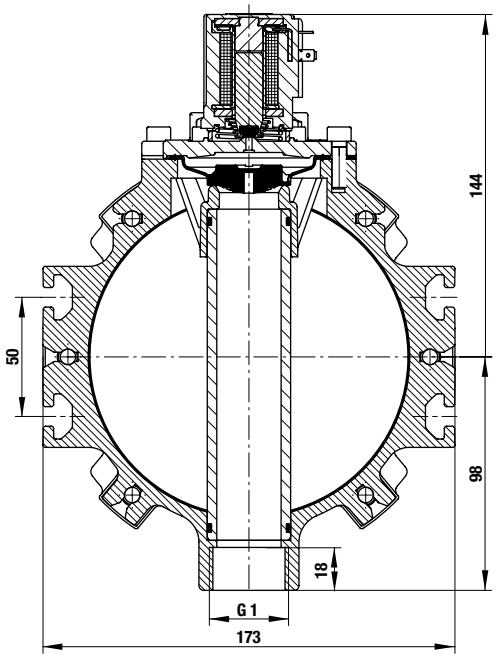


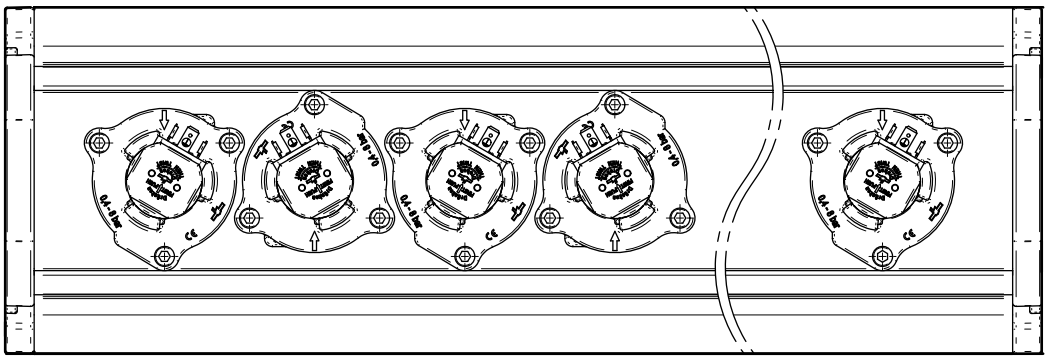


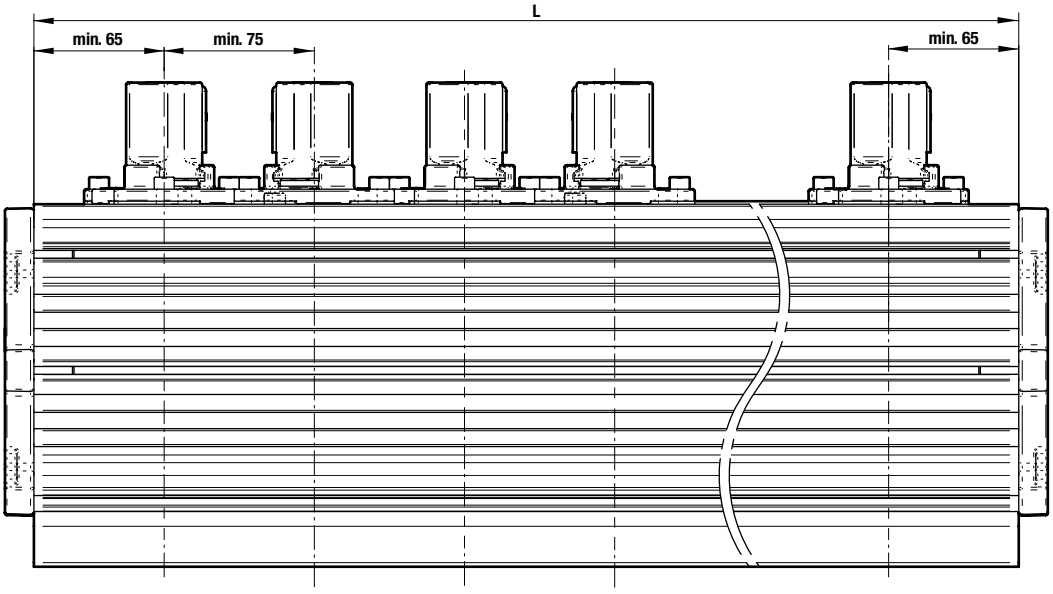


Section View

Solenoid pilot operated



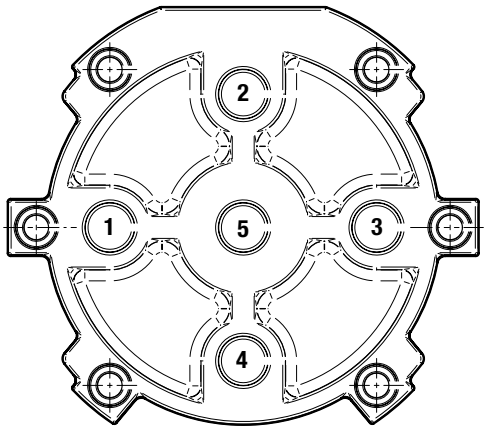




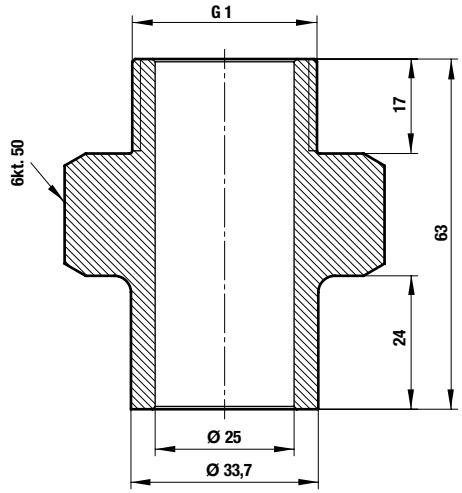
Options Tank Cover

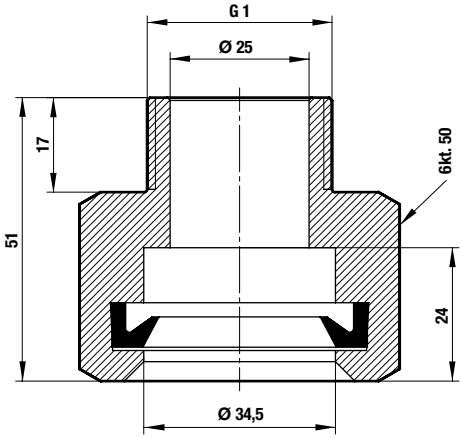
Connection 1, 2, 3, 4: 1/2 (G or NPT) port for
- condensate drain
- pressure gauge
- pressure switch
- reading point

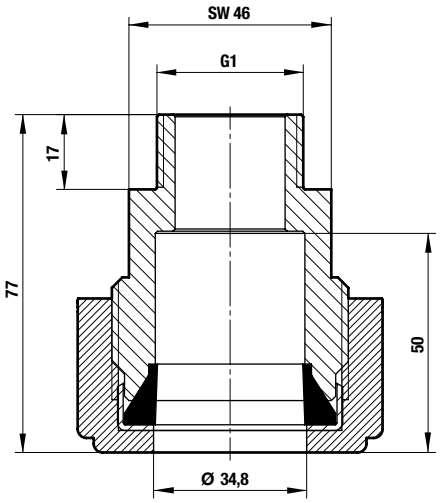
Connection 5: 1, optional 1/2 or 3/4 (G or NPT) port for
- compressed air supply
- input solenoid valve



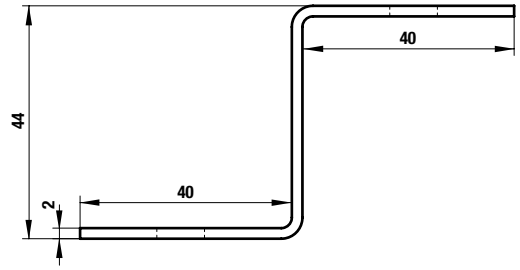
Groove with sliding block for mounting of
- electronic control
- purge valve for measuring pipes of differential pressure regulator
- differential pressure regulator
- cable channel

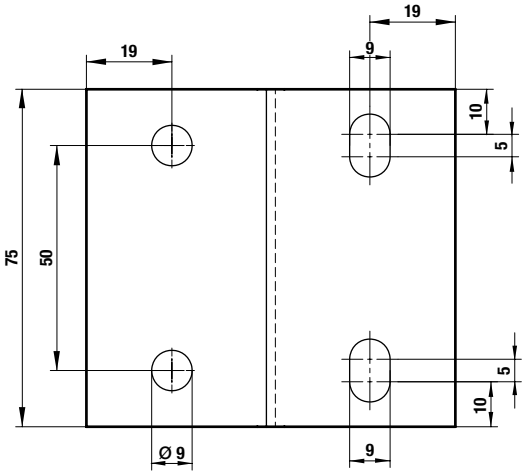






Mounting Angle





Proper use

The instructions and advice contained in this operating manual must be observed in order to ensure that this filter cleaning system for dust filter systems will work safely and present no hazards in use. Use outside the permitted limits or the non-observance of the provisions of this operating manual shall be considered as improper use. Any damage arising from improper use shall be solely the liability of the user. Unauthorised interference with or modifications to the filter cleaning system for dust filter systems or non-observance of this operating manual shall invalidate the warranty and extinguish our liability.
The compressed air used to operate the filter cleaning system must not chemically or mechanically damage the materials used. If you have no previous experience to demonstrate suitability, we recommend that you seek advice from our application technology staff. The filter cleaning system for dust filter systems is designed for normal moist or dried compressed air of quality class in accordance with ISO 8573-1333 and complying with Pressure Equipment Directive 97/23/EC.

The operator must operate the filter cleaning system for dust filter systems and associated equipment using personnel who have received the appropriate specialist training and instruction, and must monitor the operation to ensure that there is no danger to those involved or to any third party. The operator must make available suitable operating instructions so that the operating and maintenance personnel receive the instructions necessary for operating the filter cleaning system for dust filter systems. The relevant national regulations of the country of operation must be observed.

Air supply

To ensure the integral diaphragm valves continue to operate without problems, we recommend the use of normal moist or dried compressed air complying with air quality class 333 in accordance with ISO 8573-1 for operating the filter cleaning system for dust filter systems. An appropriately rated pressure relief device must ensure that the maximum operating pressure of 8 bar is not exceeded. With moist compressed air we recommend the use of an optionally available condensate connection.

Set-up

Observe the following points when setting up the filter cleaning system for dust filter systems:
– Avoid any contamination (sealing strips, swarf, ...) of the inside of the system due to fitting the pipework or valves
– Ensure the cross section of the supply pipework is adequate (min. pressure > 0.4 bar)

Inspection and maintenance

Preventative maintenance / cleaning should be carried out depending on the operating conditions or if there are changes in the switching times or noise. Check the solenoid coil for cracks and deposits of dirt, the electrical connection for tightness and that the seals are intact at regular intervals depending on the ambient conditions. Deposits, dirt, aged or worn seals can lead to malfunctioning.

The operator carries the responsibility for setting the appropriate inspection and maintenance intervals for the conditions of use of the filter cleaning system.
Maintenance work on filter cleaning systems may be undertaken only by specialist, trained personnel with suitable tools. The filter cleaning systems must be depressurised and their solenoids disconnected from the power supply before work starts.

The inspection and maintenance work includes in particular the checking and rectification of faults in respect of
- Leaks
- Labelling
- Correct functioning of safety devices
- Functioning and seals of the integral valves for the filter cleaning system
- Electrical connections of the solenoid valve
- Tightness of the filter cleaning system fastenings

Wear parts are designated with *.

Safety advice

The filter cleaning system for dust filter systems is designed for fixed installation conditions and must not be used for any other than the intended purpose.
Improper use occurs if
- The permissible pressure is exceeded by more than 10 %
- The permissible operating and ambient temperatures are considerably lower or higher than their actual values
- The filter cleaning system for dust filter system or its safety devices are damaged

In the event of any of the above, the filter cleaning system for dust filter systems must be taken out of operation immediately and a special check must be carried out.

Transport and storage

The filter cleaning system for dust filter systems may be transported only in a depressurised state.
Suitable transport restraints and packaging must be provided to ensure that no deformation or damage can occur to the surfaces or connections.
All connections must be sealed by suitable means and the seals may be removed by suitably trained personnel only. (Attention: Do not damage the sealing surfaces or threads)

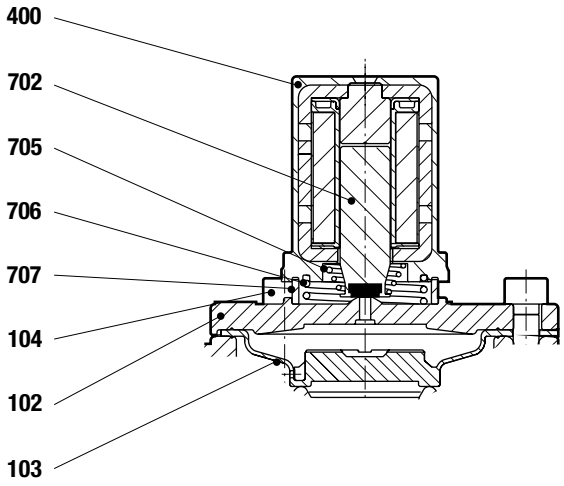
Installation

The filter cleaning system for dust filter systems must be installed in such a way that
- It is easily accessed for inspections and maintenance work and can be visually inspected from all sides
- The rating plate can be easily read
- Maintenance work can be carried out safely from a stable position
- It is protected from mechanical damage from external sources
- No additional forces due to bending moments or vibrations are induced
- It is fitted with suitable safety devices to prevent excess pressures

Replacement of wear parts

Valves with external controls:
– Unscrew the cover screws 104 and remove the valve cover 102.
– Remove the diaphragm 103 and check for wear and cracks.
– Clean the valve components, replace any defective components.
– Fit the diaphragm 103 in the correct position on the valve seat. Take into account the various shapes and recesses.
– Put the valve cover 102 back in place and secure with the cover screws 104.

Valves with integral controls:
– Press the Twist-on® Solenoid 400 in the direction of the valve housing against the force of the pressure spring 706.
– Then with a 60° rotation of the bayonet connection remove the Twist-on® solenoid.
– Unscrew the cover screws 104 and remove the valve cover 102.
– Remove the diaphragm 103 and check for wear and cracks.
– Clean the valve components. Replace any defective components.
– Fit the diaphragm 103 in the correct position on the valve seat. Take into account the various shapes and recesses.
– Put the valve cover 102 back in place and secure with the cover screws 104.
– Connect the pressure spring 705 on to the nose of the plunger 702.
– Push the plunger into the hole in the magnet and press the pressure spring 705 into the recess up to the bearing surface using a screwdriver. Restraining the pressure spring prevents the plunger from falling out.
– Place the pressure spring 706 into the groove in the solenoid and press it securely into the groove with a slight anticlockwise turn. Restraining the pressure spring prevents it from falling out.
– Press the silencer 707 into the groove in the solenoid.
– Align the solenoid with the recess in the bayonet connection and press it against the spring force in the direction of the valve housing. Then with a 60° turn engage the bayonet connection. The detent nibs must be clearly visible in the recesses.



Labelling

The filter cleaning system for dust filter systems is labelled with the following information: