resideo Actuators for Filters

Braukmann Z11S

Reverse rinsing actuator

for fully automatic filter cleaning



The Z11S automatic reverse rinsing actuator provides fully automatic cleaning for all Resideo reverse rinsing filters, filter combinations, water supply units and water distributor units. The reverse rinsing intervals are adjustable in sixteen steps between four minutes and three months. The Z11Shas an emergency running function in the event of power failure (only when batteries are fitted) and offers the possibility of manual operation of the reverse rinsing function. Connection options are available for differential pressure switching, remote control and remote monitoring.

SPECIAL FEATURES

- Push buttons give easy setting of intervals
- Push button for manual operation of reverse rinsing
- Digital indicator of time interval set
- Digital indicator of number of reverse rinsing cycles carried out
- Facility to indicate time remaining before next programmed reverse rinsing cycle
- Reset button enables resetting of counter
- Settings are maintained even when electrical power fails
- Set during manufacture to 45 day interval
- Can be set to 16 different reverse rinsing intervals
- Automatic battery ¹⁾ run-on if mains supply fails
- Manufactured with integral electrical suppression
- Additional PG 9 cable entry for connection of remote operation, remote monitoring or differential pressure control
- Can be connected for differential pressure switch, remote operation or remote monitoring
- Bayonet connection enables fitting without tools





TECHNICAL DATA

Operating temperatures				
Max. water temperature:	70 °C			
Specifications				
Mains cable:	1.5 metres			
Batteries:	Four LR6-1.5 V-Mignon/AA size alkali-manganese batteries ¹⁾			
Battery life:	Approximately 3 years			
Time intervals:	4 minutes to 3 months			
Ambient conditions:	5 - 90 % relative humidity, 0 - 60 °C			
Protection class:	1 DIN VDE 0700-T1/ EN 60335-1			
Protection type:	IP 55 sprayed water			

 $^{1)}$ Batteries are not supplied with the appliance. Batteries are not necessary if automatic run-on in the event of power failure is not required. When batteries are fitted, the appliance should not be left unplugged for long periods.

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CONSTRUCTION

Overview		Components	Materials
	1	Bayonet connection	-
	2	Housing	High-quality synthetic material
	3	Mains cable	-

METHOD OF OPERATION

The Z11Sopens or closes the ball valve according to the set time interval. The opening of the ball valve causes a differential pressure within the filter which activates the reverse rinsing function. The ball valve closes again at the end of the reverse rinsing period. Four batteries (not supplied) provide back-up protection. The batteries close the ball valve if power fails during reverse rinsing function, thus preventing unwanted water loss.

REVERSE RINSING

Reverse rinsing duration when mains electrical operation approximately 25 sec.

Reverse rinsing quantity at 4.0 bar operating pressure.

Filter size	Drain connection	Reverse rinsing quantity (litres)
1/2" + 3/4"	DN50	12
1" + 1 ¹ /4"	DN70	15
11/2" + 2"	DN70	18

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	0 °C
Max. ambient temperature:	60 °C
Min. ambient relative humidity:	5 % *
Max. ambient relative humidity:	90 % *

^{*}non condensing

INSTALLATION GUIDELINES

Setup requirements

- In case the mains supply fails during the backwash the batteries (if they are fitted) provide the energy for closing the backwash ball valve. The battery charge should be checked regularly. At the latest after two years exchange the batteries with new ones
- In order to avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection

Installation Example

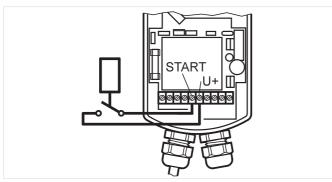


Fig. 1 Remote control analogous

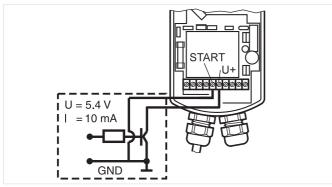


Fig. 2 Remote control digital

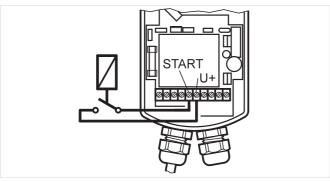


Fig. 3 Differential pressure switch

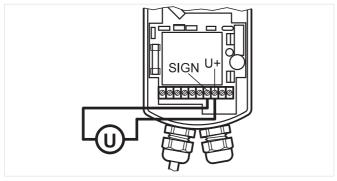


Fig. 4 Remote monitoring

Additional connection options

The Z11S can be remotely actuated by:

- a) A volt-free switching circuit
- b) Via an open-collector output

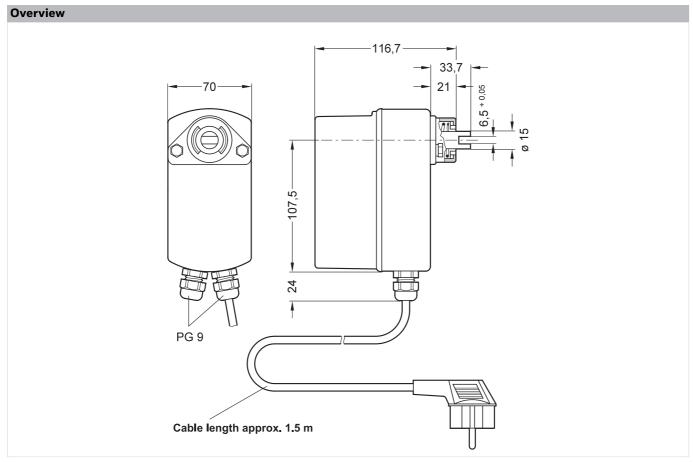
In both cases the minimum holding period is one second. Reverse rinsing occurs when the inputs "Start" and "U+" have been separated.

The reverse rinsing function can be actuated according to demand using the DDS76 differential pressure switch with voltage free switching. It is recommended that the differential pressure be set to 1.0 bar. Operation occurs when the inputs "Start" and "U+" have been separated, that is, after the differential pressure has fallen below the set value. Through this it is guaranteed that a maximum quantity of water is available for reverse rinsing. If reverse rinsing starts immediately irrespective of the duration of the differential pressure signal, then the inputs should be connected instead to "U+" and "SIGN".

The DDS76 differential pressure switch can only be used where Z11S and F76S fine filters are also installed.

For remote monitoring of the open/closed position of the ball valve the installation of a building management system with 0 to 10 V input is recommended. The maximum current is 10 mA. With a current of 0.5 V the ball valve is open and with a value between 5 V and 6 V the ball valve is closed.

DIMENSIONS



Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

The actuator is available in the following sizes: $^{1}/_{2}$ ", $^{3}/_{4}$ ", 1 ", $^{1}/_{4}$ ", $^{1}/_{2}$ " and 2 ".

- standard
- not available

	Z11S-A	Z11S-B	Z11S-Z
Connection type: 230 V, 50/60 Hz, 10 W with moulded Schuko electrical plug	•	-	-
24 V, 50/60 Hz, 10 W without electrical plug	-	•	-
230 V, 50/60 Hz, 10 W with moulded Type 12 electrical plug for Switzerland	-	-	•

Note: From 1997 onwards: Use reverse rinsing actuator Z11S for filters and filter combinations HS10S, F76S, F76CS, FK76CS, FK76CS, FK76CS, FK74C, F74C, FK74C, FN74C and FN09S.



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