

AQUALEVEL[®] SMG control unit for pumps

For pumping stations with 1 or 2 pumps up to 11 kW motor power, equipped with control module AQUALEVEL[®] MD or MP

- Compact control unit in plastic housing (IP 54)
- Micro controller based
- Level control via float switch or pneumatically
- All control functions for pumping stations
- Operating parameters are stored, safe from power failures, in an EEPROM
- Option: Prepared for plug in telemetry system AQUALEVEL[®] RDT - APV
- DOL-start up to 3 kW
- Star-delta-start up to 11 kW
- Single-phase motors with starting device up to 1.7 kW



AQUALEVEL® SMG control unit for pumps

General

Control for standard pumps and pumps in Ex-applications of Zone 1. The module has been developed specifically for the control of simplex and duplex pumping stations. It covers the necessary functions to control pumps.

The control module consist of a base plate on a sub-rack (clamp bracket for top hat rail) with clamped-on display unit. The input/output necessary for operation are handled via this display unit. Modes of operation and parameters are indicated in a text display. Important messages are additionally indicated by the LED display and by audible alarm devices.

The input/output via text display are menu controlled. With the help of push button(s), the menu can be rolled up and down. The operating parameters are stored, safe from power failures, in an EEPROM.

Standard parameters are implemented, when the controller is delivered ex works. The parameters (basic data that can be re-called) are stored in the default file.

Base version for 1 or 2 three-phase motor pumps

Control module and display unit

- Control module
- Main switch
- Motor circuit breaker (MCCB)
- Motor contactor (s)

For wall mounting (for indoor and outdoor installation). Suitable for installation in an outdoor cabinet.

Additional equipment in the same housing

- Battery 12 V/1.2 Ah
- Electronic seal monitor

With additional equipment in larger housing

Plastic housing (IP 54)

- Small capacity compressor
- Intrinsincally safe relais for float switches
- Modem for telemetry system

Selection guide for AQUALEVEL® SMG compact pump control

Series produced Control Panel for one or two pumps up to 3kW direct start 230V / 400V

ISO- plastic casing IP 54


Notice: Additional accessories have to be ordered as text in clear.

Horn 230 V
Horn 12 V

Ampere meter for one pump
two pumps

Notice: The flashlight is supplied separately. In case the SMG is ordered with an outdoor cabinet, the flashlight is mounted on top of the cabinet ex works.

Control panels for outdoor



Mains
W 230 V Alternating current
D 400 V Three-phase current

Number of pumps
1 Pump
Z Pumps

Level control system
S Float switch
E Ex-Relay for pump(s)
M Max. water and pump(s) with Ex-Relay
D Duplex with one Ex-Relay only
N Follow-up time
K Compressor for forced air bubbling
H Lifting station
L Air bell connection

Range of Current
A 1.0-1.0
B 1.5-2.5
C 2.5-4.0
D 4.0-6.3
E 6.0-9.0
F 9.0-12.0
Z Motor S10 7.5 A with capacitor start
Y Motor S12 9.2 A with capacitor start
X Motor S17 10.8 A with capacitor start

Monitoring System
D Seal monitoring
B Hours run meter
K Seal monitoring and hours run meter
O None

Alarm
B Battery alarm incl. fused terminal
N Mains alarm incl. fused terminal


Installation
A Outdoor
H Heating and thermostat

Flashlight
B Flashlight
K Flashlight in protective casing

Article Code: **SMGW1NEON**

Series produced Control Panel for one or two pumps up to 11 kW / 400 V Star-Delta start

ISO- plastic casing IP 54



Notice: The flashlight is supplied separately. In case the SMG is ordered with an outdoor cabinet, the flashlight is mounted on top of the cabinet ex works.

Control panels for outdoor installation must be ordered with heating and thermostat.

Motorstarter
Y Star - Delta start 400V

Number of pumps
1 Pump
Z Pumps

Level control system
S Float switch
E Ex-Relay for pump(s)
M Max. water and pump(s) with Ex-Relay
D Duplex with one Ex-Relay only
N Follow-up time
K Compressor for forced air bubbling
H Lifting station
L Air bell connection

Range of Current
E 6.0-9.0
F 9.0-14.0
G 13.0-18.0
H 17.0-23.0
I 20.0-25.0
K 24.0-32.0

Monitoring System
D Seal monitoring
B Run hour meter
K Seal monitoring and run hour meter
O None

Alarm
B Battery alarm incl. fused terminals
N Mains alarm incl. fused terminals

Special for outdoor installation
H Heating and thermostat

Flashlight
B Flashlight
K Flashlight in protective casing

Article Code: **SMGY1EHBH**

AQUALEVEL® SMG control unit for pumps

Technical data

Rated voltage		3 x 400 / 230 V / N / PE / 50 Hz			
Control unit for:		1 x DOL	2 x DOL	1 x Star-delta	2 x Star-delta
Housing		Euro-Installation distributor, plastic housing IP 54			
(W x H x D in mm)		285 x 375 x 138	285 x 375 x 138	285 x 500 x 138	570 x 375 x 138
according to features and options		285 x 500 x 138	285 x 500 x 138	285 x 750 x 138	570 x 500 x 138
			285 x 750 x 138		
Level control		for connection of float switches AQUALEVEL® KS			
Type MD		level control via piezoresistive pressure sensor for connection to air bell or air pipe			
Type MP					
Actuators					
Hand-0-Automatic pump (s)		1	2	1	2
UP		1	1	1	1
DOWN		1	1	1	1
Enter (acknowledge fault)		1	1	1	1
LED displays					
Module ready		1	1	1	1
Pump running		1	2	1	2
Pump fault		1	2	1	2
Max. filling level of sump		1	1	1	1
Buzzer indication		for max. water alarm and collective fault			
Relay outputs					
Collective fault indication		1 no/nc contact	1 no/nc contact	1 no/nc contact	1 no/nc contact
Alarm with acknowledgement		1 no contact	1 no contact	1 no contact	1 no contact
Parameter input					
Time delay for pump stop ²⁾		0 to 249 s (increment: 1 s)			
Lead time for max. water alarm ¹⁾		0 to 249 s (increment: 1 s)			
Level pump ON ²⁾		1	2	1	2
Level pump OFF ²⁾		1	2	1	2
Level max. water alarm ON/OFF ²⁾		1	1	1	1
Fault indication inputs		manual acknowledgement of motor protection switch and thermal overload contact, connected for each pump in series			
Functions					
Hand and automatic operation of pump		1	2	1	2
Re-start delay pump		10 to 249 s (increment: 1 s)			
Forced starting of pump		Interval 0...249 h; operating time 3 s (increment: 1 h)			
Forced emptying ²⁾		Interval 0...249 h; emptying below level OFF			
Change starting sequence		-	yes	-	yes
Lock pumps, not ready for operation		-	yes	-	yes
Motor circuit breaker (MCCB)		1	2	1	2
Contactors		1 x DOL	2 x DOL	1 x Star-delta	2 x Star-delta
Main switch		1	1	1	1
Control transformer		-	1	1	1
Terminals for float switch AQUALEVEL® KS					
Level ON/OFF ¹⁾		1	2	1	2
Max. water alarm ⁴⁾		1	1	1	1

Battery charge output

13.7 V, approx. 50 mA

¹⁾ only for version AQUALEVEL® KS

³⁾ only displayed in connection with external DI-booster

²⁾ only in connection with piezo pressure sensor

⁴⁾ for version MD and as second safety for version MP

Technical data for single-phase controllers 230 V / N / PE / 50 Hz on request

ABS offers the complete range

PIRANHA®

Sewage pumps with shredding action for reliable and economical discharge of effluent under pressure, using small diameter discharge lines in communal schemes and for effluent removal from houses.

Pumped medium: Sewage and other heavily polluted wastewater.



AFP

Submersible pumps from 1.3 to 1000 kW. Pressure-tight encapsulated fully flood-proof motors. Hydraulics with ContraBlock®-System or closed, single or multivane impellers for handling clear water, polluted water, sewage containing solids, faecal slurry and sludge.

Suitable for both wet well and dry well installation.



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Flood-proof lifting station for the automatic removal of sewage from areas below the backwash level in accordance with DIN 1986.

Ideal for effective sewage removal from apartments, larger buildings and for both new and renovated structures.

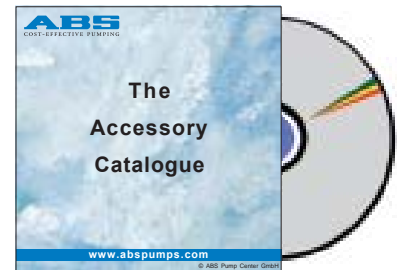


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The best basis for an easy installation and a trouble-free operation of your plant.

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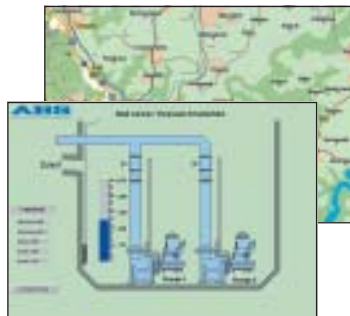
ABS - "Whatever you need". Order your copy of the accessory catalogue today.



AQUALEVEL®

The RDT - APV is a Windows® based configuration and process visualization software.

AQUALEVEL® MD/MP control modules can be connected.



AQUALEVEL®

Float switch KS for automatic level control. Impact, shock resistant, mercury free and environmentally friendly.

The recessed rolling surface for the ball ensures trouble-free functioning.



ABS reserves the right to alter specifications due to technical developments.

ABS
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