SB20

Level controller or power interface module with alarm sounder



- ***Primary output can directly control motors up to 2HP cosΦ 0.4-0.5 single phase***
- ***2 SPCO relay outputs***
- ***Alarm indicator LED and Beeper***
- ***1, 2 or 3 sensor inputs***
- ***240 or 415Vac supply***
- ***DIN rail mounting***

Technical Specification		
Supply Voltage	V	240 or 415ac
Sensor Voltage	V	12Vac
Sensor Inputs	switch contacts or conductive probes	

Output ratings		Output 1	Output 2
Contact Form		SPCO	SPCO
Switching Power Max ac	VA	1500	750
Switching Power Max dc	W	560	not approved
Switching Voltage AC Max	V	250	250
Switching Voltage DC Max	V	28	not approved
Switching Current Max Resistive			
(n/o contact)	A	20	10
(n/c contact)	A	10	10
Switching Current Max Inductive	A	8	4

Standard Parts	Inputs	Outputs
SB20	1, 2 or 3	2

Other versions can be made for particular applications. Please contact Cynergy3 with your requirements.

The SB20 is a versatile level control or interface module that can also be used in many other process control applications.

One level switch can be connected for an alarm or two level switches to start and stop a submersible pump or a solenoid valve for emptying/filling function

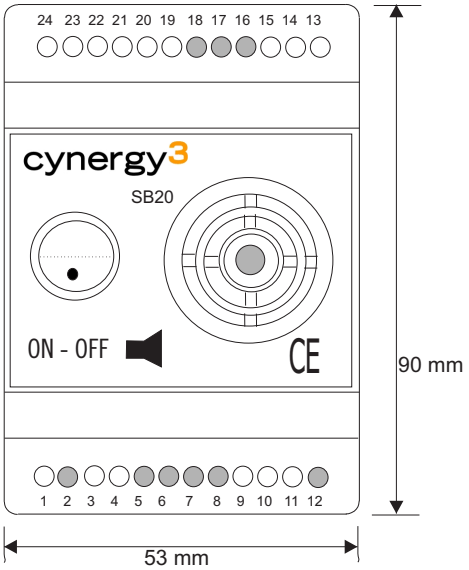
It works with all kind of level switches, including conductive probes, as well as pressure switches or other limit switches.

The module can be used as a dry-running protection, with a pressure switch or filling level control switch, to start and stop a pump.

Power supply 240/415 Vac.
Two outputs:
Main output SPCO 20(8) Amps 250V
Secondary output SPCO 10(4) Amps 250V

LED indicator and beeper for low level alarm

Mechanical Diagram



Terminal Assignment

1	Supply Neutral
3	Supply Live 240Vac
4	Supply Live 415Vac
9	Output 1 nc contact
10	Output 1 no contact
11	Output 1 common
13	Output 2 no contact
14	Output 2 common
15	Output 2 nc contact
19-20	Low voltage input sensor
21-22	Sensor common input
23	Sensor minimum level
24	Sensor maximum level

Low voltage input 19-20 for pressure/float switch with contacts closed at minimum pressure or level switch with contacts closed when level low. **NB These terminals must be bridged if no sensor is connected**.

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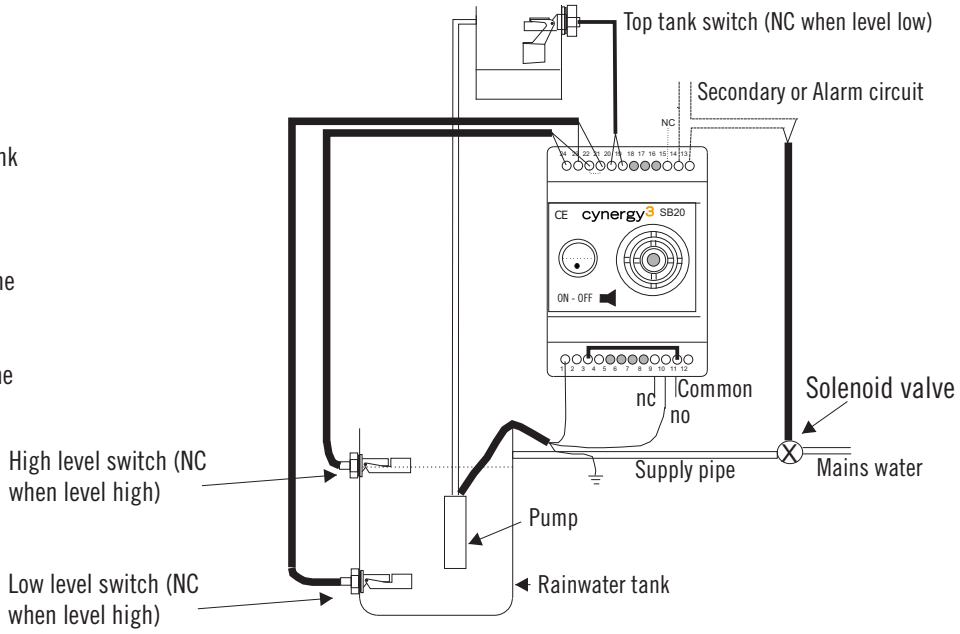
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Level controller or power interface module with alarm sounder

The SB20 can be used for many process control functions, including:
Dry running control with 2 level switches
Dry running control with 1 level switch
Dry running control with conductive probes
Pump control by pressure switch
Pump control by level switch
“No water” alarm and secondary control output

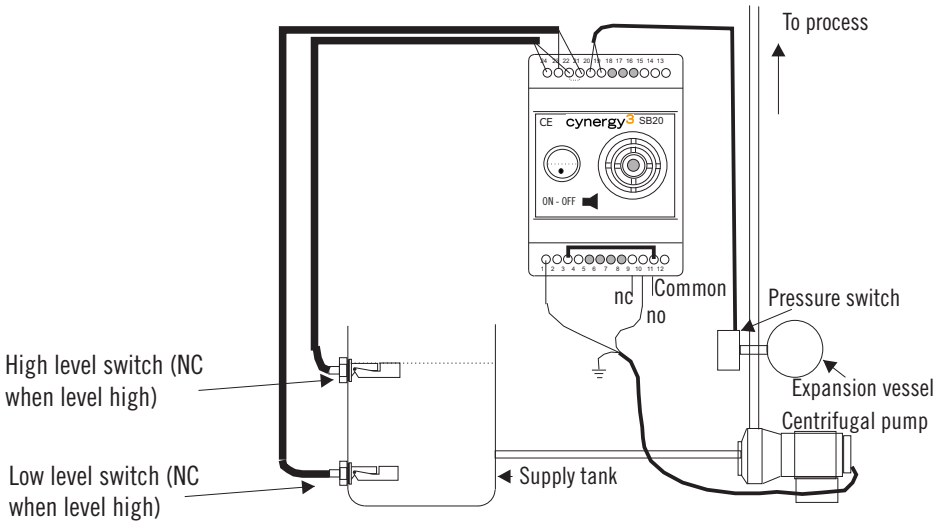
Example: Rainwater supply

Filling a vented roof tank from a rainwater tank.
The pump will operate when the roof tank level is not at max level and the water in the rainwater tank is above the low level.
The red alarm LED will illuminate and the Beeper will sound (with switch in ON position), if the level in the rainwater tank drops to the low level, and the secondary relay opens a solenoid valve to supply water from the mains water supply, which will remain operated until the rainwater tank fills to the high level. The Beeper alarm will, if switch is ON, sound until the tank is full.
The illustration is for 240Vac supply, which is connected to terminals 0 (neutral) and 3 (live).



Example: Process supply
Maintaining a pressurised supply to a process.
The pump will operate when the pressure switch is below the set level and the water in the supply tank is above the low level.
The red alarm LED will illuminate and the Beeper will sound (with switch in ON position), if the level in the supply tank drops to the low level, and the secondary relay will operate. The alarm will remain operated until the tank fills to the high level. The Beeper alarm will, if switch is ON, sound until the tank is full.

The illustration is for 240Vac supply, which is connected to terminals 0 (neutral) and 3 (live).



NB The diagrams shown above are simplified illustrations of how the module may be used and do not include any necessary safety devices, such as fuses or thermal cutouts, or statutory requirements for installation of such electrical equipment.

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