SIEMENS

GB CE

Weather control unit
for 4 sensors **5WG1 257-3AB11**
for 8 sensors **5WG1 257-3AB01**

As at: April 2006

Product and functional description

The central device of the weather station forms the interface between the sensors and the bus.
The 4- and 8-sensor weather control units are central switching and control systems which enable for example the automatic adjustment of various blinds/shutters.
Examples of these include the textile sun blind, external shutters as well as interior motor-driven sun protection systems such as venetian blinds or vertical blinds.
4 or 8 sensors can be connected to the central devices. Apart from a special digital input for the wind sensor, either 3 or 7 further analogue inputs are available for the connection of light, rain, temperature and dusk sensors.

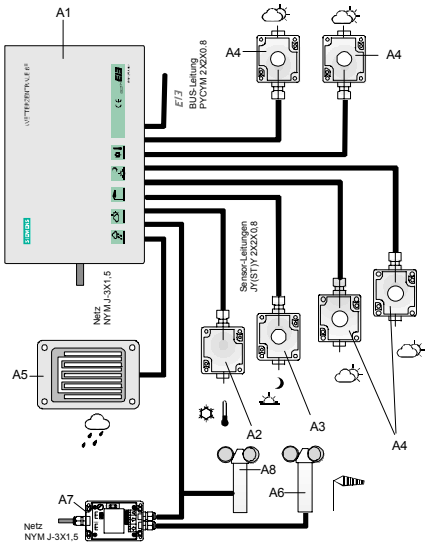
The following accessories for the weather control units must be ordered separately:

Dusk sensor	5WG1 258-3AB11
Temperature sensor	5WG1 258-3AB21
Light sensor	5WG1 258-3AB31
Rain sensor heated	5WG1 258-3AB41
Wind sensor heated	5WG1 258-7AB02
Wind sensor heated n.w.	5WG1 258-7AB03
Wind sensor unheated n.w.	5WG1 258-7AB13
Heating transformer	5WG1 258-8AB01
Mast mounting for sensors	5WG1 258-8AB21

Application programs

http://www.siemens.de/gamma

Application example



A1 Weather control unit
A2 Temperature sensor
A3 Dusk sensor
A4 Light sensor
A5 Rain sensor, heated
A6 Wind sensor heated
A7 Heating transformer for wind sensor heated
A8 Wind sensor unheated

Technical data

Power supply

- Bus voltage: via the bus line
- Operating voltage: 230V~ 50Hz
- Sensors are supplied by the control unit

Inputs

4-sensor	8-sensor
3 analogue inputs for:	7 analogue inputs for:
- Dusk sensor - Temperature sensor - Light sensor - Rain sensor	
1 digital input for	1 digital input for:
Wind sensor	

⚠ WARNING

- A separate 230 V AC circuit should be used to connect the weather control unit.
- The operating voltage 230V should only be connected at the designated terminals.
- Only the sensors indicated may be used.
- The sensor cables may not be laid parallel to the power cables.
- The connections to the sensors should remain non-earthed and may not exceed 20 m in length.
- The device may not be installed in the immediate vicinity of heating systems and air conditioning devices.
- Both the central devices and the sensors should not be installed in the vicinity of radio transmitters.
- The device may be opened to connect the mains cable and the sensors. The internal cover plate may not be removed.
- The fuse may only be replaced by a fuse of the same type and nominal data (5x20mm 1.6AT HB).
- The device may only be installed and commissioned by an authorised electrician.

NOTE:
The controller must only ever be reset once the fault has been repaired (replacement of a sensor).
To reset, switch off the 230V voltage supply to the weather central controller and the heating transformer for at least 10 minutes.

Connections

- Power supply 230V
  - NYM J – 3x1.5 mm²
- Sensor inputs
  - JY(ST)Y 2x2x0.6 or
  - PYCYM 2x2x0.6
- Bus line: screwless bus terminal
  0.6 … 0.8 mm ∅ single core

Mechanical data

- Housing: Plastic
- Dimensions: 4-sensor (WxHxD) 200x150x55 mm
  8-sensor (WxHxD) 250x160x55 mm
- Weight: 4-sensor: approx. 800 g
  8-sensor: approx. 850 g
- Fire load: 4-sensor: 15060 kJ ♀ 10%
  8-sensor: 20560 kJ ♀ 10%
- Installation: Surface-mounted

Electrical safety

- Complies with EN 60950 and EN 50090-2-2
- Type of protection (in accordance with EN 60529): IP 54
- Bus: safety extra-low voltage SELV DC 24V
- Sensor connections: safety extra-low voltage SELV DC 24V
- Protection class (in accordance with IEC 61140): I

EMC requirements EN 50090-2-2
Complies with EN 50081-1, EN 50082-2 and EN 50090-2-2

Environmental conditions

- Climatic withstand capability: EN 50090-2-2
- Ambient operating temperature: - 20 … + 40°C
- Storage temperature: - 25 … + 70°C
- Relative humidity (not condensing): 5% to 93%

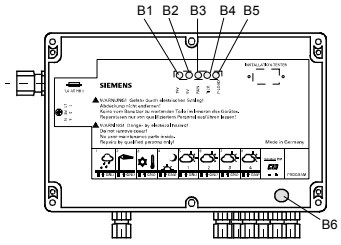
Approval

EIB certified

CE mark

in accordance with the EMC guideline (residential and functional buildings), low voltage guideline

Location and function of the display and operating elements



Display elements

B1 LED "15V" to indicate the operating voltage
B2 LED "5V" to indicate the operating voltage
B3 LED (flickering) to indicate whether the device is running properly on the EIB bus;
B4 LED (flashing) to indicate whether the controller is functioning;
B5 LED (lights up 1-3 seconds) to indicate data transmission from the bus coupler when the device is initialised or after programming;

Operating elements

B6 Learning button:
For toggling between normal mode / addressing mode

Installation and wiring

General description
The 4- and 8-sensor weather control units are surface-mounted using screws. The housing should be mounted on an inside wall in an accessible position. The devices are suitable for installation in dry and damp interior rooms. It should be ensured that there is sufficient space available for the supply cables.

Terminal plan of the 8-sensor weather control unit

Terminal number	Terminal markings	Sensor cable	Cable	Sensor
1	L		NYM J-3x1.5	Mains connection
2	PE			
3	N			
4	+	1	1(white)	Rain sensor
5	Signal	3	3(green)	
6	GND	2	2(brown)	
7	+		**	Wind sensor
8	Signal	1	(white)	
9	GND	2	(brown)	
10	+	1	JY(ST)Y 2x2x0.8	Temperature sensor
11	Signal	3		
12	GND	2		
13	+	1	JY(ST)Y 2x2x0.8	Dusk sensor
14	Signal	3		
15	GND	2		
16	+	1	JY(ST)Y 2x2x0.8	Light sensor 1
17	Signal	3		
18	GND	2		
19	+	1	JY(ST)Y 2x2x0.8	Light sensor 2
20	Signal	3		
21	GND	2		
22	+	1	JY(ST)Y 2x2x0.8	Light sensor 3
23	Signal	3		
24	GND	2		
25	+	1	JY(ST)Y 2x2x0.8	Light sensor 4
26	Signal	3		
27	GND	2		
-	black	black	YCYM 2x2x0.8	EIB bus connection block
+	red	red		

Terminal plan of the 4-sensor weather control unit

Terminal number	Terminal markings	Sensor cable	Cable	Sensor
1	L			Mains connection
2	PE			
3	N			
4	+	1	1(white)	Rain sensor
5	Signal	3	3(green)	
6	GND	2	2(brown)	
7	+		**	Wind sensor
8	Signal	1	(white)	
9	GND	2	(brown)	
10	+	1	JY(ST)Y 2x2x0.8	Light sensor 1
11	Signal	3		
12	GND	2		
13	+	1	JY(ST)Y 2x2x0.8	Light sensor 2
14	Signal	3		
15	GND	2		
-	black	black	YCYM 2x2x0.8	EIB bus connection block
+	red	red		

! Caution:

If a rain sensor is required, it should generally be connected at terminals 4-6.

The wind sensor heated be only connected at terminals 8-9. (signal) white wire and (GND) brown wire

** The wind sensor unheated also be connected at terminal 7 (+) green wire

General Notes

- Any faulty devices should be returned to the local Siemens office.
- If you have further questions about the product, please contact our Technical Support:

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