Instructions manual

KNX weather station art. 01546

Installation manual

WELL-CONTACT PLUS

VIMAR

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For all the details about the Well-contact Plus system, refer to the installer manual that can be downloaded from the Software ➡ Product Software ➡ Well-contact Plus section on the website www.vimar.com.

KNX weather station

General features and functionality

Weather station, KNX standard, power supply 12-32 Vdc or 12-24 Vac. Can be integrated with the By-me home automation system.

01546

General information

The device measures quantities such as temperature, wind speed, rainfall, and brightness whose values can be used for viewing on supervisors or, on exceeding a threshold, to activate automation systems in the installation. The KNX weather station 01546 can be integrated with the By-me home automation system via a dedicated configuration using the EasyTool Professional software.

Characteristics

- Auxiliary supply voltage AUX: 12-32 V ⎓, 12-24 V~ SELV
- AUX current draw: 100 mA max, ripple 10%

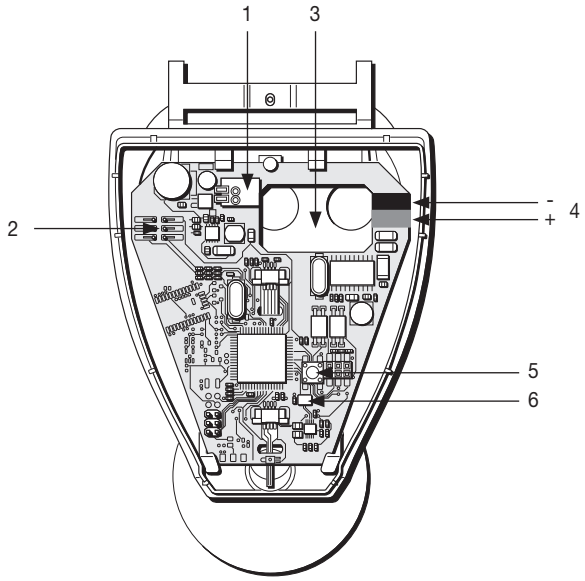
Current draw from the Bus: 10 mA

- Terminals:
  - Auxiliary power supply AUX
  - TP bus connector
- Configuration push-button
- Configuration LED
- Configuration LED: 254 max
- Possible associations: 255 max
- Communication objects: 109
- Rain sensor heating: approximately 1.2 W
- Temperature measurement range: -40°C to +80°C
- Definition (temperature): 0.1°C
- Accuracy (temperature):
  - 1°C with -10°C - +85°C
  - 1.5°C with -25°C - +150°C
- Wind measurement range: 0 - 70 m/s
- Definition (wind): <10% of the reading
- Accuracy (wind): 25% with 0 - 15 m/s with an angle of incidence of 45° and mounting on a suitable support
- Brightness measurement range: 0 - 150,000 Lux
- Definition (brightness):
  - 1 Lux with 0-120 Lux
  - 2 Lux with 121-1,046 Lux
  - 63 Lux with 1,047-52,363 Lux
  - 423 Lux with 52,364-150,000 Lux
- Accuracy (brightness): 35%
- Operating temperature: -30°C - +50°C (outdoor use)
- Protection class: IP44
- Dimensions: 96x77x118 mm (W x H x D)
- Weight: approximately 170 g

Operation

- **Brightness measurement**: the current brightness is measured by the specific sensor.
- **Wind measurement**: the strength of the wind is measured electronically and is quiet and reliable even in the event of hail, snow and sub-zero temperatures.

FRONT VIEW.



1. Fast spring terminal for auxiliary power supply AUX; terminal assignment is independent of polarity (+/- or -/+). Use a solid cable of cross-section up to 1.5 mm² or a stranded cable.
2. Connector for connecting the cable of the precipitation sensor located under the front cover of the weather station.
3. Space for feeding through the power supply cable and the Bus cable.
4. KNX TP Bus connector (-, +). We recommend using the KNX cable art. 01890 using a corrugated pipe for the outside or to protect the cable from UV radiation.
5. Configuration button.
6. Configuration LED.

The weather station is also able to detect whirlwinds and updraughts.

- **Precipitation measurement**: the weather station is equipped with a sensor with a heated surface so that only the raindrops and snowflakes (and therefore not fog or dew) are measured as precipitation. Once it has stopped raining or snowing, the sensor dries quickly and the precipitation message is turned off.
- **Temperature measurement**: the weather station measures the value of the current ambient temperature.
- **Control outputs for all values**: the limit values can be set via the respective parameters or via the ETS communication objects.
- **8 AND logic gates and 8 OR logic gates each one with 4 inputs**: the control operations themselves as well as the 8 logic inputs (in the form of communication objects) can be used as inputs for the AND and OR logic gates; the output of each gate can be configured as 1 bit or as 2 x 8 bits.

IMPORTANT: Press the configuration button to assign the physical address to the device.

Behaviour after switching on the Bus

Switching on the Bus: the state will be set based on the setting of the parameters and the corresponding telegrams sent over the Bus.

Behaviour after reset

As for Bus on.

ETS parameters and communication objects

List of existing communication objects and standard settings

No.	ETS name	Function	Description	Type	Flag 1						Priority
					C	R	W	T	U	I	
0	Night control output	Output	Sends the command over the BUS when the "Night" condition occurs (1 = Night | 0 = Day).	1 bit	C	R	-	T	-	-	Low
1	Rain control output	Output	Sends the command over the BUS when the "Rain" condition occurs (1 = Rain | 0 = No Rain).	1 bit	C	R	-	T	-	-	Low
2	Logic input 1	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
3	Logic input 2	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
4	Logic input 3	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
5	Logic input 4	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
6	Logic input 5	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
7	Logic input 6	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
8	Logic input 7	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
9	Logic input 8	Input	Input that can be enabled to be used for performing the logic functions made available by the weather station.	1 bit	C	R	W	-	-	-	Low
10	Temperature sensor error	Output	Indicates malfunctioning of the weather station temperature sensor (0 = OK | 1 = NOT OK).	1 bit	C	R	-	T	-	-	Low
11	Wind sensor error	Output	Indicates malfunctioning of the wind sensor (0 = OK | 1 = NOT OK).	1 bit	C	R	-	T	-	-	Low
12	Measured value temperature	Output	Lets you know the temperature measured by the weather station in °C.	2 bytes	C	R	-	T	-	-	Low
13	Min/max temperature request	Request	Requests the weather station to send the measured minimum and maximum temperature values over the Bus.	1 bit	C	R	W	-	-	-	Low
14	Measured min. temperature value	Sends min. temperature	Lets you know the minimum temperature measured by the weather station in °C.	2 bytes	C	R	-	T	-	-	Low
15	Measured max. temperature value	Sends max. temperature	Lets you know the maximum temperature measured by the weather station in °C.	2 bytes	C	R	-	T	-	-	Low
16	Min/max temperature reset	Temperature reset	Deletes the saved minimum and maximum temperature values.	1 bit	C	R	W	-	-	-	Low
17	Temperature 1 LV	Default value	Temperature 1 limit value: to set the setpoint of the limit value	2 bytes	C	R	-	T	-	-	Low
18	Temperature 1 LV	Actual value	Temperature 1 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
19	Temperature 2 LV	Default value	Temperature 2 limit value: to set the setpoint of the limit value	2 bytes	C	R	-	T	-	-	Low
20	Temperature 2 LV	Actual value	Temperature 2 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low

Continues

C = Communication; **R** = Read; **W** = Write; **T** = Transmission; **U** = Enable update

ETS parameters and communication objects

Continued

No.	ETS name	Function	Description	Type	Flag 1						Priority
					C	R	W	T	U	I	
21	Temperature 3 LV	Default value	Temperature 3 limit value: to set the setpoint of the limit value	2 bytes	C	R	-	T	-	-	Low
22	Temperature 3 LV	Actual value	Temperature 3 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
23	Temperature 4 LV	Default value	Temperature 4 limit value: to set the setpoint of the limit value	2 bytes	C	R	-	T	-	-	Low
24	Temperature 4 LV	Actual value	Temperature 4 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
25	Control output	Temp 1 LV	Temperature 1 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
26	Control output	Temp 2 LV	Temperature 2 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
27	Control output	Temp 3 LV	Temperature 3 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
28	Control output	Temp 4 LV	Temperature 4 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
29	Measured value wind speed	Output	Lets you know the wind speed measured by the weather station in m/s.	2 bytes	C	R	-	T	-	-	Low
30	Request for max. wind strength	Request	Requests the weather station to send the measured maximum wind speed value over the Bus.	1 bit	C	R	W	-	-	-	Low
31	Max. measured wind strength value	Sends the maximum wind strength	Lets you know the maximum wind speed measured by the weather station in m/s.	2 bytes	C	R	-	T	-	-	Low
32	Reset max. wind strength	Wind strength reset	Deletes the saved maximum wind strength value.	1 bit	C	R	W	-	-	-	Low
33	Wind speed 1 LV	Default value	Wind speed 1 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
34	Wind speed 1 LV	Actual value	Wind speed 1 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
35	Wind speed 2 LV	Default value	Wind speed 2 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
36	Wind speed 2 LV	Actual value	Wind speed 2 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
37	Wind speed 3 LV	Default value	Wind speed 3 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
38	Wind speed 3 LV	Actual value	Wind speed 3 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
39	Control output	Wind 1 LV	Wind Speed 1 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
40	Control output	Wind 2 LV	Wind Speed 2 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
41	Control output	Wind 3 LV	Wind Speed 3 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
42	Measured value brightness	Output	Lets you know the brightness measured by the weather station in lux.	2 bytes	C	R	-	T	-	-	Low
43	Limit value brightness 1	Default value	Brightness 1 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
44	Limit value brightness 1	Actual value	Brightness 1 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low

Continues

C = Communication; **R** = Read; **W** = Write; **T** = Transmission; **U** = Enable update

ETS parameters and communication objects

Continued

No.	ETS name	Function	Description	Type	Flag 1						Priority
					C	R	W	T	U	I	
45	Limit value brightness 2	Default value	Brightness 2 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
46	Limit value brightness 2	Actual value	Brightness 2 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
47	Limit value brightness 3	Default value	Brightness 3 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
48	Limit value brightness 3	Actual value	Brightness 3 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
49	Control output	Brightness 1 LV	Brightness 1 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
50	Control output	Brightness 2 LV	Brightness 2 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
51	Control output	Brightness 3 LV	Brightness 3 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
52	Limit value twilight 1	Default value	Twilight function 1 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
53	Limit value twilight 1	Actual value	Twilight function 1 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
54	Limit value twilight 2	Default value	Twilight function 2 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
55	Limit value twilight 2	Actual value	Twilight function 2 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
56	Limit value twilight 3	Default value	Twilight function 3 limit value: to set the setpoint of the limit value	2 bytes	C	R	W	T	U	-	Low
57	Limit value twilight 3	Actual value	Twilight function 3 limit value: to read the actual limit value	2 bytes	C	R	W	-	-	-	Low
58	Twilight 1 LV control output	Output	Twilight 1 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
59	Twilight 2 LV control output	Output	Twilight 2 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
60	Twilight 3 LV control output	Output	Twilight 3 Limit Value control output.	1 bit	C	R	-	T	-	-	Low
61	Logic AND 1	Control output	Logic output AND 1 at 1 bit.	1 bit	C	R	-	T	-	-	Low
62	Logic AND 1	Output A at 8 bits	Output A at 8 bits of the logic output AND 1.	1 bytes	C	R	-	T	-	-	Low
63	Logic AND 1	Output B at 8 bits	Output B at 8 bits of the logic output AND 1.	1 bytes	C	R	-	T	-	-	Low
64	Logic AND 2	Control output	Logic output AND 2 at 1 bit.	1 bit	C	R	-	T	-	-	Low
65	Logic AND 2	Output A at 8 bits	Output A at 8 bits of the logic output AND 2.	1 bytes	C	R	-	T	-	-	Low
66	Logic AND 2	Output B at 8 bits	Output B at 8 bits of the logic output AND 2.	1 bytes	C	R	-	T	-	-	Low
67	Logic AND 3	Control output	Logic output AND 3 at 1 bit.	1 bit	C	R	-	T	-	-	Low
68	Logic AND 3	Output A at 8 bits	Output A at 8 bits of the logic output AND 3.	1 bytes	C	R	-	T	-	-	Low
69	Logic AND 3	Output B at 8 bits	Output B at 8 bits of the logic output AND 3.	1 bytes	C	R	-	T	-	-	Low
70	Logic AND 4	Control output	Logic output AND 4 at 1 bit.	1 bit	C	R	-	T	-	-	Low
71	Logic AND 4	Output A at 8 bits	Output A at 8 bits of the logic output AND 4.	1 bytes	C	R	-	T	-	-	Low

Continues

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ETS parameters and communication objects

Continued

No.	ETS name	Function	Description	Type	Flag 1						Priority
					C	R	W	T	U	I	
72	Logic AND 4	Output B at 8 bits	Output B at 8 bits of the logic output AND 4.	1 bytes	C	R	-	T	-	-	Low
73	Logic AND 5	Control output	Logic output AND 5 at 1 bit.	1 bit	C	R	-	T	-	-	Low
74	Logic AND 5	Output A at 8 bits	Output A at 8 bits of the logic output AND 5.	1 bytes	C	R	-	T	-	-	Low
75	Logic AND 5	Output B at 8 bits	Output B at 8 bits of the logic output AND 5.	1 bytes	C	R	-	T	-	-	Low
76	Logic AND 6	Control output	Logic output AND 6 at 1 bit.	1 bit	C	R	-	T	-	-	Low
77	Logic AND 6	Output A at 8 bits	Output A at 8 bits of the logic output AND 6.	1 bytes	C	R	-	T	-	-	Low
78	Logic AND 6	Output B at 8 bits	Output B at 8 bits of the logic output AND 6.	1 bytes	C	R	-	T	-	-	Low
79	Logic AND 7	Control output	Logic output AND 7 at 1 bit.	1 bit	C	R	-	T	-	-	Low
80	Logic AND 7	Output A at 8 bits	Output A at 8 bits of the logic output AND 7.	1 bytes	C	R	-	T	-	-	Low
81	Logic AND 7	Output B at 8 bits	Output B at 8 bits of the logic output AND 7.	1 bytes	C	R	-	T	-	-	Low
82	Logic AND 8	Control output	Logic output AND 8 at 1 bit.	1 bit	C	R	-	T	-	-	Low
83	Logic AND 8	Output A at 8 bits	Output A at 8 bits of the logic output AND 8.	1 bytes	C	R	-	T	-	-	Low
84	Logic AND 8	Output B at 8 bits	Output B at 8 bits of the logic output AND 8.	1 bytes	C	R	-	T	-	-	Low
85	Logic OR 1	Control output	Logic output OR 1 at 1 bit.	1 bit	C	R	-	T	-	-	Low
86	Logic OR 1	Output A at 8 bits	Output A at 8 bits of the logic output OR 1.	1 bytes	C	R	-	T	-	-	Low
87	Logic OR 1	Output B at 8 bits	Output B at 8 bits of the logic output OR 1.	1 bytes	C	R	-	T	-	-	Low
88	Logic OR 2	Control output	Logic output OR 2 at 1 bit.	1 bit	C	R	-	T	-	-	Low
89	Logic OR 2	Output A at 8 bits	Output A at 8 bits of the logic output OR 2.	1 bytes	C	R	-	T	-	-	Low
90	Logic OR 2	Output B at 8 bits	Output B at 8 bits of the logic output OR 2.	1 bytes	C	R	-	T	-	-	Low
91	Logic OR 3	Control output	Logic output OR 3 at 1 bit.	1 bit	C	R	-	T	-	-	Low
92	Logic OR 3	Output A at 8 bits	Output A at 8 bits of the logic output OR 3.	1 bytes	C	R	-	T	-	-	Low
93	Logic OR 3	Output B at 8 bits	Output B at 8 bits of the logic output OR 3.	1 bytes	C	R	-	T	-	-	Low
94	Logic OR 4	Control output	Logic output OR 4 at 1 bit.	1 bit	C	R	-	T	-	-	Low
95	Logic OR 4	Output A at 8 bits	Output A at 8 bits of the logic output OR 4.	1 bytes	C	R	-	T	-	-	Low
96	Logic OR 4	Output B at 8 bits	Output B at 8 bits of the logic output OR 4.	1 bytes	C	R	-	T	-	-	Low
97	Logic OR 5	Control output	Logic output OR 5 at 1 bit.	1 bit	C	R	-	T	-	-	Low
98	Logic OR 5	Output A at 8 bits	Output A at 8 bits of the logic output OR 5.	1 bytes	C	R	-	T	-	-	Low
99	Logic OR 5	Output B at 8 bits	Output B at 8 bits of the logic output OR 5.	1 bytes	C	R	-	T	-	-	Low

Continues

C = Communication; **R** = Read; **W** = Write; **T** = Transmission; **U** = Enable update

ETS parameters and communication objects

Continued

No.	ETS name	Function	Description	Type	Flag 1						Priority
					C	R	W	T	U	I	
100	Logic OR 6	Control output	Logic output OR 6 at 1 bit.	1 bit	C	R	-	T	-	-	Low
101	Logic OR 6	Output A at 8 bits	Output A at 8 bits of the logic output OR 6.	1 bytes	C	R	-	T	-	-	Low
102	Logic OR 6	Output B at 8 bits	Output B at 8 bits of the logic output OR 6.	1 bytes	C	R	-	T	-	-	Low
103	Logic OR 7	Control output	Logic output OR 7 at 1 bit.	1 bit	C	R	-	T	-	-	Low
104	Logic OR 7	Output A at 8 bits	Output A at 8 bits of the logic output OR 7.	1 bytes	C	R	-	T	-	-	Low
105	Logic OR 7	Output B at 8 bits	Output B at 8 bits of the logic output OR 7.	1 bytes	C	R	-	T	-	-	Low
106	Logic OR 8	Control output	Logic output OR 8 at 1 bit.	1 bit	C	R	-	T	-	-	Low
107	Logic OR 8	Output A at 8 bits	Output A at 8 bits of the logic output OR 8.	1 bytes	C	R	-	T	-	-	Low
108	Logic OR 8	Output B at 8 bits	Output B at 8 bits of the logic output OR 8.	1 bytes	C	R	-	T	-	-	Low

C = Communication; **R** = Read; **W** = Write; **T** = Transmission; **U** = Enable update

Number of communication objects	Max. number of group addresses	Max. number of associations
109	254	255

ETS parameters and communication objects

Reference ETS parameters

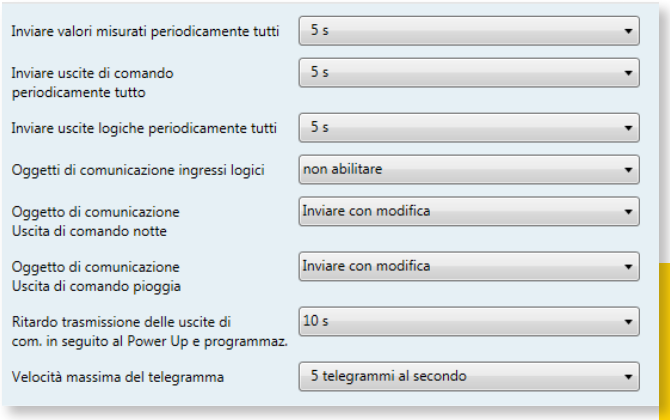
Behaviour in the event of a power failure and when power is restored.

Behaviour if there is no Bus voltage or auxiliary voltage:
The device transmits no data.

Behaviour if there is no Bus voltage or auxiliary voltage and subsequent programming or restarting:
The device sends all the measured values, control outputs and the status of the logic gates according to the behaviour set by the parameters in the "General Settings". When powering up, information will be sent with a settable delay.

General settings

ETS text	Available values [Default value]	Comment
Send measured values periodically all	5 s ... 2 h	
	[5 s]	
Send control outputs periodically all	5 s ... 2 h	
	[5 s]	
Send logic outputs periodically all	5 s ... 2 h	
	[5 s]	
Logic input communication objects	do not enable	
	enable	
	[do not enable]	
Night control output communication object	Do not send	
	Send with change	
	Send reversed with change	
	Send with change and cyclically	
	Send reversed with change and cyclically	
	[Send with change]	
Rain control output communication object	Do not send	
	Send with change	
	Send reversed with change	
	Send with change and cyclically	
	Send reversed with change and cyclically	
	[Send with change]	
Control output transmission delay after Power up and programm.	5 s ... 2 h	When powering up and after programming, the weather station waits for the set time delay before transmitting the control outputs.
	[10 s]	
Maximum speed of the telegram	1... 20 telegrams per second	
	[5 telegrams per second]	



General settings

ETS parameters and communication objects

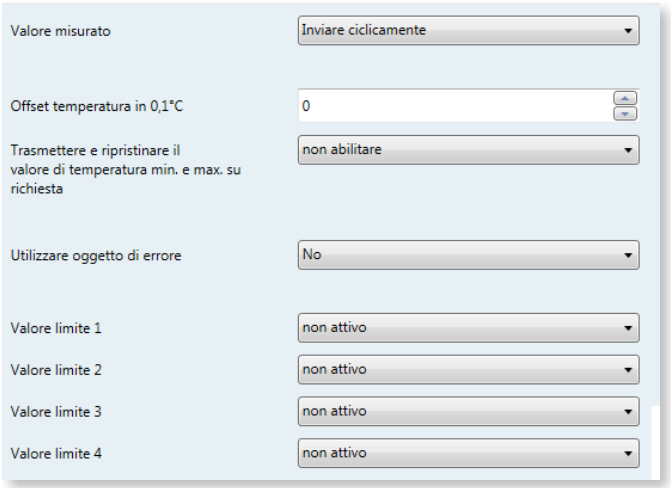
Temperature

ETS text	Available values [Default value]	Comment
Measured value	Do not send	
	Send cyclically	
	Send with change	
	Send with change or cyclically	
	[Send cyclically]	
Starting from a temperature change of	0.5 °C ... 5 °C	It is displayed when selecting "Send with change" for the measured value
	[0.5 °C]	
Temperature offset 0.1°C	-50...50	
	[0]	
Transmit and reset the min. and max temperature value on request	do not enable	Enables/disables the communication objects 13-14-15 and 16. 13-Min/max temperature request. 14-Measured min. temperature value. 15-Measured max. temperature value. 16-Min/max temperature reset.
	enable	
	[do not enable]	
Use error object	No	Enables/disables communication object: 10- Temperature sensor error
	Yes	
	[No]	
Limit value 1	off	
	on	
	[off]	

Continues

Continued

ETS text	Available values [Default value]	Comment
Limit value 2	off	
	on	
	[off]	
Limit value 3	off	
	on	
	[off]	
Limit value 4	off	
	on	
	[off]	



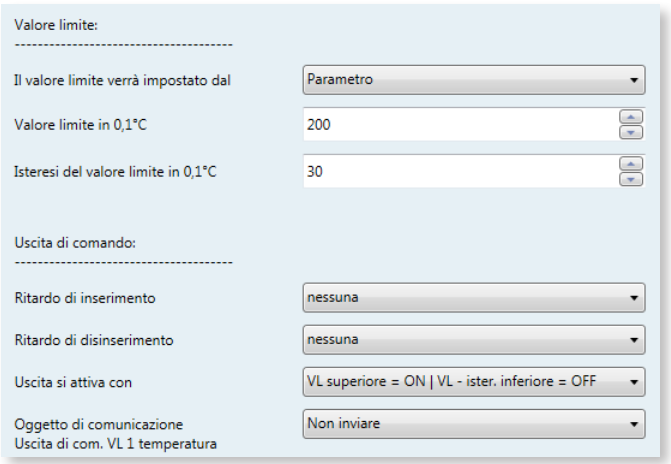
Temperature

Limit value 1,2,3,4

When the above parameter **Limit Value** is selected as **on** it is necessary to set its characteristics and those of the **Control output** too.

ETS text	Available values [Default value]	Comment
The limit value will be set by the	Parameter	
	Communication object	
	Communication object saving the last value	
	[Parameter]	
Limit value in 0.1°C	-300 ...800	
	[200]	
Hysteresis of the limit value in 0.1°C	0..100	See par. Hysteresis on page 20
	[30]	

Continues

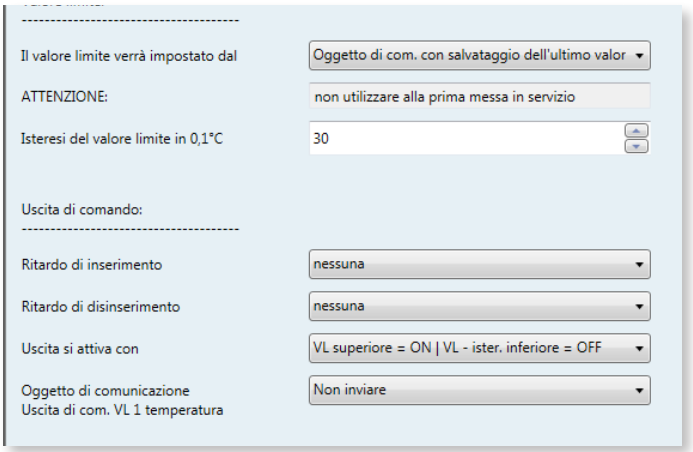


Limit value on

ETS parameters and communication objects

Continued

ETS text	Available values [Default value]	Comment
On delay	none, 1s, 1min...2h	
	[none]	
Off delay	none, 1s, 1min...2h	
	[none]	
Output activates with	LV upper = ON | LV - lower hyst. = OFF	
	LV lower = ON | LV + lower hyst. = OFF	
	[LV upper = ON | LV - lower hyst. = OFF]	
Control output communication object LV 1 temperature	Do not send	
	Send with change	
	Send reversed with change	
	Send with change and cyclically	
	Send reversed with change and cyclically	
	[Do not send]	



Limit value set by "Comm. object saving the last value"

Note: If the threshold value is set by a communication object, the threshold value must be specified during configuration because this value remains valid until the 1st object is sent with the new threshold value. In the case of weather stations that have already been put into service, the last threshold value sent by the communication object is used. If a threshold is set once using the parameter or a communication object, the last set threshold value remains until a new threshold value is transmitted by a communication object. The last threshold values set by the communication objects are saved in EEPROM memory, so as to preserve the values during a power failure that are then available when power is restored.

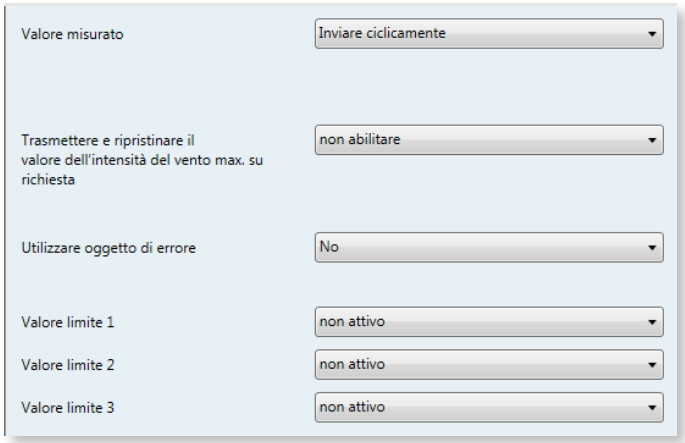
Wind

ETS text	Available values [Default value]	Comment
Measured value	Do not send	
	Send cyclically	
	Send with change	
	Send with change or cyclically	
	[Send cyclically]	
Starting from a change in wind strength of:	1m/s...4m/s	It is displayed when selecting "Send with change" and "Send with change and cyclically"
	[1m/s]	
Transmit and reset the max wind strength value on request	do not enable	Enables/disables the communication objects 30-31 and 32. 30- Request for max. wind strength 31-Max. measured wind strength value. 32-Reset max. wind strength.
	enable	
	[do not enable]	
Use error object	No	Enables/disables communication object: 11- Wind sensor error.
	Yes	
	[No]	
Limit value 1	off	
	on	
	[off]	

Continues

Continued

ETS text	Available values [Default value]	Comment
Limit value 2	off	
	on	
	[off]	
Limit value 2	off	
	on	
	[off]	



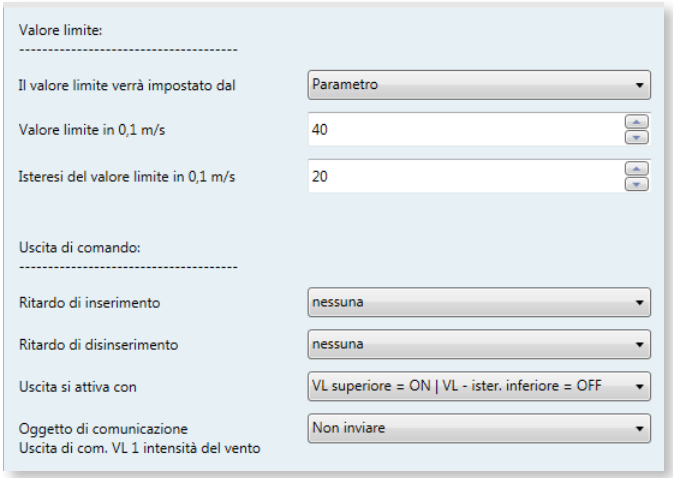
Wind

ETS parameters and communication objects

Limit value 1,2,3

When the above parameter **Limit Value** is selected as **on** it is necessary to set its characteristics and those of the **Control output** too.

ETS text	Available values [Default value]	Comment
The limit value will be set by the	Parameter	
	Communication object	
	Communication object saving the last value	
	[Parameter]	
Limit value in 0.1 m/s	0 ...350	
	[40]	
Hysteresis of the limit value in 0.1 m/s	0..250	See par. Hysteresis on page 20
	[20]	
On delay	none, 1s, 1min...2h	
	[none]	
Off delay	none, 1s, 1min...2h	
	[none]	
Output activates with	LV upper = ON | LV - lower hyst. = OFF	
	LV lower = ON | LV + lower hyst. = OFF	
	[LV upper = ON | LV - lower hyst. = OFF]	
Control output communication object LV 1 wind strength	Do not send	
	Send with change	
	Send reversed with change	
	Send with change and cyclically	
	Send reversed with change and cyclically	
	[Do not send]	



Limit value on

Note: If the threshold value is set by a communication object, the threshold value must be specified during configuration because this value remains valid until the 1st object is sent with the new threshold value.
In the case of weather stations that have already been put into service, the last threshold value sent by the communication object is used.
If a threshold is set once using the parameter or a communication object, the last set threshold value remains until a new threshold value is transmitted by a communication object.
The last threshold values set by the communication objects are saved in EEPROM memory, so as to preserve the values during a power failure that are then available when power is restored.

ETS parameters and communication objects

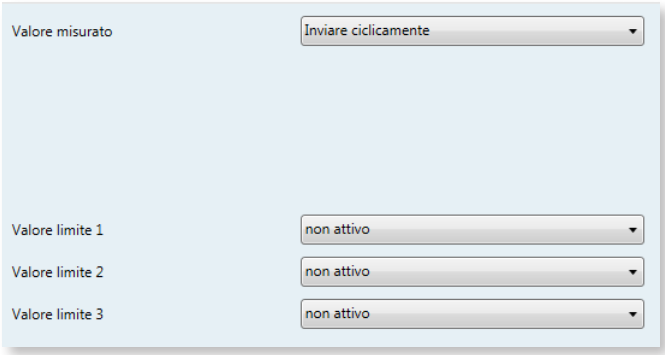
Brightness

ETS text	Available values [Default value]	Comment
Measured value	Do not send	
	Send cyclically	
	Send with change	
	Send with change or cyclically	
	[Send cyclically]	
Starting from a change in %	1 ... 50	It is displayed when selecting "Send with change" and "Send with change and cyclically" for the measured value
	[10]	
Limit value 1	off	
	on	
	[off]	
Limit value 2	off	
	on	
	[off]	

Continues

Continued

ETS text	Available values [Default value]	Comment
Limit value 3	off	
	on	
	[off]	



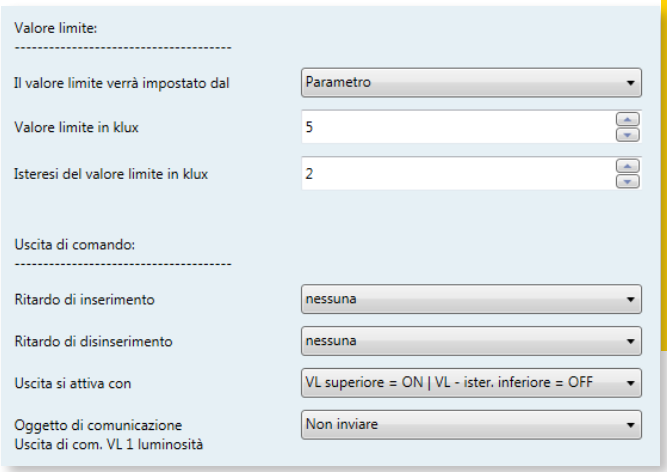
Brightness

Limit value 1,2,3

When the above parameter **Limit Value** is selected as **on** it is necessary to set its characteristics and those of the **Control output** too.

ETS text	Available values [Default value]	Comment
The limit value will be set by the	Parameter	
	Communication object	
	Communication object saving the last value	
	[Parameter]	
Limit value in klux	1 ...99	
	[5]	
Hysteresis of the limit value in klux	0..99	See par. Hysteresis on page 20
	[2]	
On delay	none, 1s, 1min...2h	
	[none]	
Off delay	none, 1s, 1min...2h	
	[none]	
Output activates with	LV upper = ON | LV - lower hyst. = OFF	
	LV lower = ON | LV + lower hyst. = OFF	
	[LV upper = ON | LV - lower hyst. = OFF]	

Continues



Limit value on

ETS parameters and communication objects

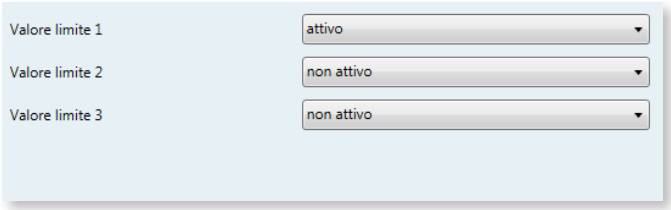
Continued

ETS text	Available values [Default value]	Comment
Control output communication object LV 1 brightness	Do not send	
	Send with change	
	Send reversed with change	
	Send with change and cyclically	
	Send reversed with change and cyclically	
	[Do not send]	

Note: If the threshold value is set by a communication object, the threshold value must be specified during configuration because this value remains valid until the 1st object is sent with the new threshold value.
In the case of weather stations that have already been put into service, the last threshold value sent by the communication object is used.
If a threshold is set once using the parameter or a communication object, the last set threshold value remains until a new threshold value is transmitted by a communication object.
The last threshold values set by the communication objects are saved in EEPROM memory, so as to preserve the values during a power failure that are then available when power is restored.

Twilight

ETS text	Available values [Default value]	Comment
Limit value 1	off	
	on	
	[off]	
Limit value 2	off	
	on	
	[off]	
Limit value 2	off	
	on	
	[off]	

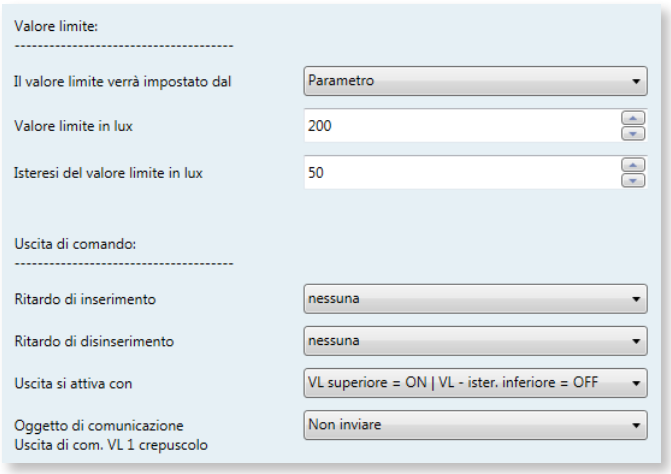


Twilight

Limit value 1,2,3

When the above parameter **Limit Value** is selected as **on** it is necessary to set its characteristics and those of the **Control output** too.

ETS text	Available values [Default value]	Comment
The limit value will be set by the	Parameter	
	Communication object	
	Communication object saving the last value	
	[Parameter]	
Limit value in lux	1 ...1000	
	[200]	
Hysteresis of the limit value in lux	0..1000	See par. Hysteresis on page 20
	[50]	
On delay	none, 1s, 1min...2h	
	[none]	
Off delay	none, 1s, 1min...2h	
	[none]	



Limit value on

ETS parameters and communication objects

ETS text	Available values [Default value]	Comment
Output activates with	LV upper = ON | LV - lower hyst. = OFF	
	LV lower = ON | LV + lower hyst. = OFF	
	[LV upper = ON | LV - lower hyst. = OFF]	
Control output communication object LV 1 twilight	Do not send	
	Send with change	
	Send reversed with change	
	Send with change and cyclically	
	Send reversed with change and cyclically	
	[Do not send]	

Note: If the threshold value is set by a communication object, the threshold value must be specified during configuration because this value remains valid until the 1st object is sent with the new threshold value.
In the case of weather stations that have already been put into service, the last threshold value sent by the communication object is used.
If a threshold is set once using the parameter or a communication object, the last set threshold value remains until a new threshold value is transmitted by a communication object.
The last threshold values set by the communication objects are saved in EEPROM memory, so as to preserve the values during a power failure that are then available when power is restored.

Logics

ETS text	Available values [Default value]	Comment
Logic 1	off	
	on	
	[off]	
Logic 2	off	
	on	
	[off]	
Logic 3	off	
	on	
	[off]	
Logic 4	off	
	on	
	[off]	
Logic 5	off	
	on	
	[off]	
Logic 6	off	
	on	
	[off]	
Logic 7	off	
	on	
	[off]	
Logic 8	off	
	on	
	[off]	

Logics

ETS parameters and communication objects

Logic AND

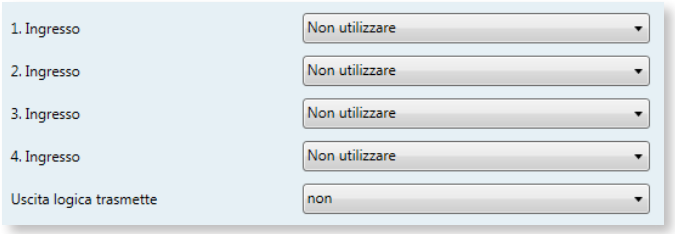
ETS text	Available values [Default value]	Comment
1. Input	Do not use	Communication objects can be selected as an input for the logic function.
	Night = 1	
	Night = 0	
	Limit value twilight 1	
	Limit value twilight 1 reversed	
	Limit value twilight 2	
	Limit value twilight 2 reversed	
	Limit value twilight 3	
	Limit value twilight 3 reversed	
	Limit value brightness 1	
	Limit value brightness 1 reversed	
	Limit value brightness 2	
	Limit value brightness 2 reversed	
	Limit value brightness 3	
	Limit value brightness 3 reversed	
	Logic input 1 communication object	
	Logic input 1 rev. communication object	
	Logic input 2 communication object	
	Logic input 2 rev. communication object	
	Logic input 3 communication object	
	Logic input 3 rev. communication object	
	Logic input 4 communication object	
	Logic input 4 rev. communication object	
	Logic input 5 communication object	
	Logic input 5 rev. communication object	
	Logic input 6 communication object	
	Logic input 6 rev. communication object	
	Logic input 7 communication object	
	Logic input 7 rev. communication object	
	Logic input 8 communication object	
	Logic input 8 rev. communication object	

Continues

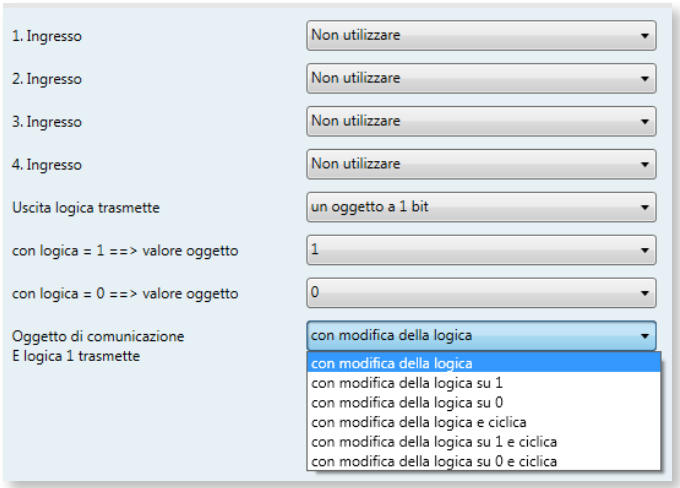
Continued

ETS text	Available values [Default value]	Comment
1. Input	Rain Yes	Communication objects can be selected as an input for the logic function.
	Rain No	
	Temperature error	
	Temperature error reversed	
	Wind error	
	Reversed wind error	
	Temperature 1 LV	
	Temperature 1 LV reversed	
	Temperature 2 LV	
	Temperature 2 LV reversed	
	Temperature 3 LV	
	Temperature 3 LV reversed	
	Temperature 4 LV	
	Temperature 4 LV reversed	
	Wind 1 LV	
	Wind 1 LV reversed	
	Wind 2 LV	
	Wind 2 LV reversed	
	Wind 3 LV	
	Wind 3 LV reversed	
	[Do not use]	
2. Input	As 1. Input	As 1. Input
3. Input	As 1. Input	As 1. Input
4. Input	As 1. Input	As 1. Input
Logic output transmits	no	
	one 1-bit object	
	two 8-bit objects	
	[no]	

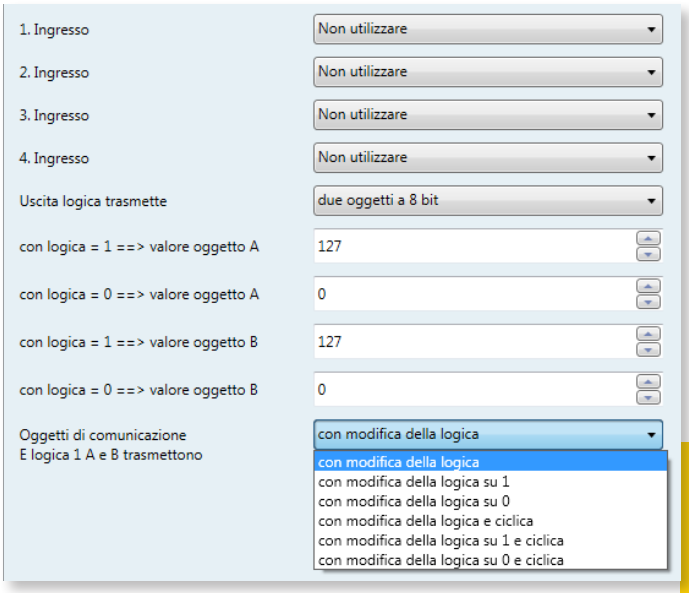
ETS parameters and communication objects



Logic AND



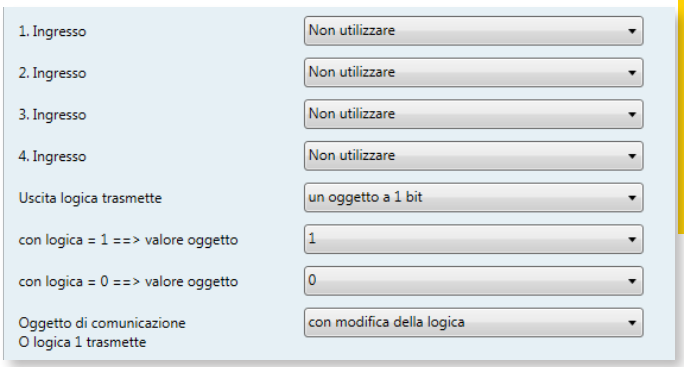
Logic AND with Logic output transmits "one 1-bit object"



Logic AND with Logic output transmits "two 8-bit objects"

Logic OR

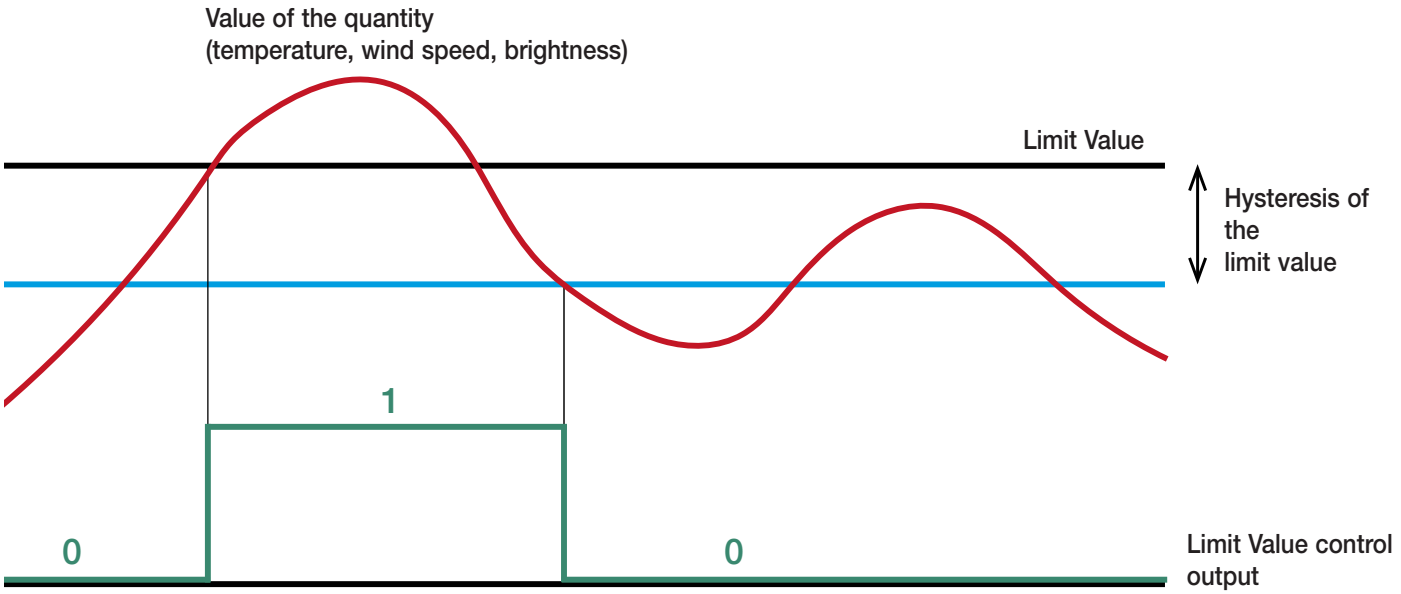
The parameters with which the OR logic gates are configured are similar to those previously illustrated for the AND logic gates. Therefore please refer to the information on the previous pages.



Logic OR

Hysteresis of the limit value.

This section graphically illustrates the meaning of the Hysteresis parameter for the object with Limit Value 1,2,3 for Temperature, Wind, Brightness and Twilight.



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