

## 17.15. EXP

Identifiers from the **EXP** group are used for control and integration of **Satel** expanders connected to **DO-MIQ/Expander** module.

The following table provides an overview of **EXP** identifiers and their main features. A detailed description of the individual identifiers along with examples of applications can be found later in this chapter.

Group	Short description	State	Event	Command
EXP.output	Control and state of a single relay in expander.	Y	Y	Y
EXP.outputs	Control of multiple relays.	N	N	Y
EXP.group	Control of all relays assigned to particular group.	N	N	Y
EXP.all	Control of all relays in installation.	N	N	Y
EXP.input	State and information about changes of state of a single expander input	Y	Y	N

## 17. Identifiers

### EXP.output

This identifier is used to control and display state of a single relay in expander. It also informs about changes of value of a relay.

	Identifier	Value	Description
<b>State</b>	EXP.output.E.O E- Expander address O - Output number	0	Relay off
		1	Relay on
<b>Event</b>	E.EXP.output.E.O	0	Relay has been turned off
		1	Relay has been turned on
<b>Command</b>	C.EXP.output.E.O	0, 1	Sets a relay to given value
		toggle	Toggles relay value
		on	Turn on
		off	Turn off



- C.EXP.output.1.1=toggle  
Toggle relay no. 1 in expander with the address 1.
- EXP.output.31.4  
State of relay no. 4 in expander with the address 31.
- E.EXP.output.5.2=0  
Relay no. 2 in expander with the address 5 has been turned off.

## EXP.outputs

This identifier is used to control multiple relays within a single expander. The syntax of this identifier is very similar to syntax of the `LCN.relays` identifier.

	Identifier	Value	Description
<b>Command</b>	<code>C.EXP.outputs.E</code> E - Expander address	0	Turn off
		1	Turn on
		T	Toggle
		-	Do not change



- `C.EXP.outputs.1=--11----`  
Turn on relays 3 and 4 and do not change values of the remaining relays, expander with the address: 1.
- `C.EXP.outputs.1=TT1100--`  
Toggle relays 1 and 2, turn on relays 3 and 4, turn relays 5 and 6 off. Do not change value of the last two relays in expander with the address: 1.

## 17. Identifiers

### EXP.group

The `EXP.group` identifier is used to control all relays assigned to a given group. Group commands are very useful when some global commands are required. For example by assigning all relays to the same group, they can be turned on or off by a single command

	Identifier	Value	Description
Command	<code>C.EXP.group.G</code> <code>G</code> - group number	toggle	Toggle
		on or 1	Turn on
		off or 0	Turn off



- `C.EXP.group.1=1` lub `C.EXP.group.1=on`  
Turn on all relays assigned to group no. 1.
- `C.EXP.group.1=0` lub `C.EXP.group.1=off`  
Turn off all relays assigned to group no. 1.
- `C.EXP.group.1=toggle`  
Toggle all relays assigned to group no. 1.

## EXP.all

This identifier allows to control all relays in installation simultaneously.

	Identifier	Value	Description
<b>Command</b>	C.EXP.all	toggle	Toggle
		on or 1	Turn on
		off or 0	Turn off



- C.EXP.all=1 lub C.EXP.all=on  
Turn on all relays in installation.
- C.EXP.all=0 lub C.EXP.all=off  
Turn off all connected relays.
- C.EXP.all=toggle  
Toggle all relays in installation.

## 17. Identifiers

### EXP.input

The `EXP.input` informs about state of a single expander input. **Base** module also emits events that informs about changes of inputs states.

	Identifier	Value	Description
<b>State</b>	<code>EXP.input.E.I</code> <b>E</b> - expander number <b>I</b> - input number	0	Input open
		1	Input closed
<b>Event</b>	<code>E.EXP.input.E.I</code>	0	Input has been opened
		1	Input has been closed



- `EXP.input.1.4`  
State of input no. 4 in expander with the address 1.
- `E.EXP.input.5.2=1`  
Input no. 2 in expander with the address 5 has been closed. In case, when a wall-mounted button is connected to this input, this event informs that the button was pressed.