

EnOcean Equipment Profiles

REVISION HISTORY

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System Specification



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A5-38: Central Command

RORG	A5	4BS Telegram
FUNC	38	Central Command
TYPE	08	Gateway

Communication between gateway and actuator uses byte DB_3 to identify Commands. Commands 0x01 to 0x7F shall be common to all types belonging to this profile. Commands 0x80 to 0xFE can be defined individually for each device type.

0x01 Switching

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x01:		
8	16	DB2.7...DB1.0	Time	TIM	Time in 1/10 seconds. 0 = no time specified	1...65535	0.1...6553.5s	
24	4	DB0.7...DB0.4	Not Used (= 0)					
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram		
29	1	DB0.2	Lock/Unlock	LCK	Lock for duration time if time > 0, unlimited time of no time specified. Locking may be cleared with „unlock“. During lock phase no other commands will be accepted or executed	Enum: 0: Unlock 1: Lock		
30	1	DB0.1	Delay or duration	DEL	Delay or duration (if Time > 0); 0 = Duration (Execute switching command immediately and switch back after duration) 1 = Delay (Execute switching command after delay)	Enum: 0: Duration 1: Delay		
31	1	DB0.0	Switching Command	SW	Switching Command ON/OFF	Enum: 0: Off 1: On		

System Specification

0x02 Dimming

REMARK:

Ramp time is the time needed to transition from minimum to maximum dimming levels.

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x02:		
8	8	DB2.7...DB2.0	Dimming value	EDIM	Dimming value (absolute [0...255] or relative [0...100])	0...255	0...100	%
16	8	DB1.7...DB1.0	Ramping time	RMP	Ramping time in seconds, 0 = no ramping, 1... 255 = seconds to 100%	0...255	0...255	s
24	4	DB0.7...DB0.4	Not Used (= 0)					
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram		
29	1	DB0.2	Dimming Range	EDIM R	Dimming Range	Enum: 0: Absolute value 1: Relative value		
30	1	DB0.1	Store final value	STR	Store final value	Enum: 0: No 1: Yes		
31	1	DB0.0	Switching Command	SW	Switching Command ON/OFF	Enum: 0: Off 1: On		

0x03 Setpoint shift

Submitter: Thermokon Sensortechnik GmbH

Used for changing set point, for example summer / winter compensation

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x03:		
8	8	DB2.7...DB2.0	Not Used (= 0)					
16	8	DB1.7...DB1.0	Setpoint	SP	Setpoint shift	0...255	-12.7...12.8	K
24	4	DB0.7...DB0.4	Not Used (= 0)					
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram		
29	3	DB0.2...DB0.0	Not Used (= 0)					

System Specification

0x04 Basic Setpoint

Submitter: Thermokon Sensortechnik GmbH

Send a new basic set point via DDC to an actuator

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x04:		
8	8	DB2.7...DB2.0	Not Used (= 0)					
16	8	DB1.7...DB1.0	Basic Setpoint	BSP	Basic Setpoint	0...255	0...+51.2	°C
24	4	DB0.7...DB0.4	Not Used (= 0)					
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram		
29	3	DB0.2...DB0.0	Not Used (= 0)					

0x05 Control variable

Submitter: Thermokon Sensortechnik GmbH

Set occupancy, energy holdoff and control directly actuator

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x05:		
8	8	DB2.7...DB2.0	Not Used (= 0)					
16	8	DB1.7...DB1.0	Control variable override	CVOV	Control variable override	0...255	0...100	%
24	1	DB0.7	Not Used (= 0)					
25	2	DB0.6...DB0.5	Controller mode	CM	Controller Mode	Enum: 0: Automatic mode selection 1: Heating 2: Cooling 3: Off		
27	1	DB0.4	Controller state	CS	Controller state	Enum: 0: Automatic 1: Override		
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram		
29	1	DB0.2	Energy hold off	ENHO	Energy Hold Off	Enum: 0: Normal 1: Energy holdoff/ Dew point		
30	2	DB0.1...DB0.0	Room occupancy	RMOCC	Room occupancy	Enum: 0: Occupied 1: Unoccupied 2: Standby		

0x06 Fan stage

Submitter: Thermokon Sensortechnik GmbH

Set directly fan stage

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x06:		
8	8	DB2.7...DB2.0	Not Used (= 0)					
16	8	DB1.7...DB1.0	FanStage override	FO	FanStage override	Enum: 0: Stage 0 1: Stage 1 2: Stage 2 3: Stage 3 255: Auto		
24	4	DB0.7...DB0.4	Not Used (= 0)					
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram		
29	3	DB0.2...DB0.0	Not Used (= 0)					

0x07 Blind Central Command

Submitter: PEHA / infratec

With this central command all blinds, awnings and shutters can be manipulated.

Remarks for data table:

REMARK 1:

The angle is usually available in blinds and awning modules.

Normally, in shutter modules the angle value is ignored.

The angle value can be set from -180° (e.g. maximum slat angle at the fully SHUT position) to 180° (e.g. maximum slat angle at the fully OPEN position).

The byte is set with following rule:

Bit7: Sign of the slat angle (0 = positive value, 1 = negative value)

Bit6..0: Slat angle value in 2° steps (e.g. 50 = 100°)

REMARK 2:

If this function (Blind drives to position with angle value) is not supported or not configured, use following rule:

- Position is 0 to 49% -> The blind opens
- Position is 50 to 100% -> The blind closes.

REMARK 3:

Conventional blinds and shutters can be configured with these 3 parameters to calculate the sufficiently accurate position and angle of the blind.

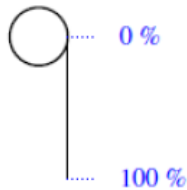
REMARK 4:

With this command you can adjust the minimal and maximal position of the blinds. So it's possible to override the running-range of blinds via a central control unit. Local operations are restricted and increase safety (e.g. to open blinds in case of wind or fire).

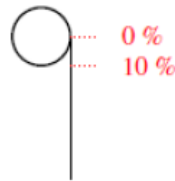
Condition: The Minimal value must be smaller or equal the maximal value.

System Specification

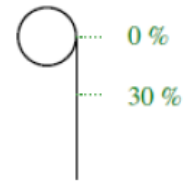
Standard running-range.



Example 1: Override for fire alarm



Example 2: Terrace door is opened

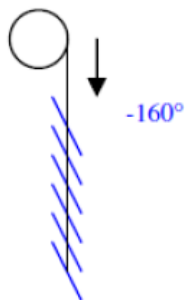


Example to lock the local functionality: Drive the shutters to a define position and set the minimal and maximal values to this position.

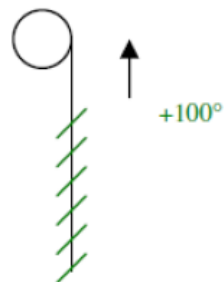
REMARK 5:

These to angle values describe the maximum slat angle at the fully SHUT position and the maximal slat angle at the fully OPEN position. With the time parameter, e.g.:

Fully SHUT position



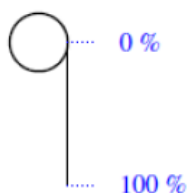
Fully OPEN position



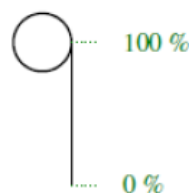
REMARK 6:

Set the position logic for the blind control and visualization.

Normal mode 0% ... 100%



Inverse mode 100% ... 0%



Note: If the mode is changed, the minimum and maximal values (function 9) are converted as well!

REMARK 7:

For important central commands, it's not necessary to send directly the statefeedback, e.g. when many modules are activated simultaneously.

Note: Special functionality is in function "Status request (0)", the status is always sent.

System Specification

Offset	Size	Bitrange	Data	ShortCut	Description	Valid Range	Scale	Unit
0	8	DB3.7...DB3.0	Command	COM	Command ID	Enum: 0x07: Shutters / Blinds		
8	8	DB2.7...DB2.0	Parameter 1	P1	Function defined parameter value	Enum: Func. 00: -- not used -- Func. 01: -- not used -- Func. 02: -- not used -- Func. 03: -- not used -- Func. 04: 0% ... 100% e.g.: 0% = Blind fully open / 100% = Blind fully closed		
						<p>Func. 05: 0 ... 255 seconds</p> <p>Func. 06: 0 ... 255 seconds</p> <p>Func. 07: Runtime value to close the blind 0 ... 255 seconds</p> <p>Func. 08: Runtime value for the sunblind reversion time This is the time to revolve the sunblind from one slat angle end position to the other end position: 0.0 ... 25.5 seconds (0.1s steps)</p> <p>Func. 09: Set minimal position value 0 ... 100%</p> <p>Func. 10: Angle at the fully SHUT position Bit7 0 = positive sign Bit7 1 = negative sign Bit6...0 0 ... 90 Angle in 2° steps (e.g. 0 = 0°, 90 = 180°)</p> <p>Func. 11: Position logic 0 = Highest position = 0% / Lowest position = 100% 1 = Highest position = 100% / Lowest position = 0%</p>		

System Specification

16	8	DB1.7...DB1.0	Parameter 2 P2	Function defined parameter value	Enum:
					<p>Func. 00: -- not used --</p> <p>Func. 01: -- not used --</p> <p>Func. 02: -- not used --</p> <p>Func. 03: -- not used --</p> <p>Func. 04: Angel (see remark 1) Bit7 0 = positive sign Bit7 1 = negative sign Bit6...0 0 ... 90 Angle in 2° steps (e.g. 0 = 0°, 90 = 180°)</p> <p>Func. 05: 0.0 ... 25.5 seconds</p> <p>Func. 06: 0.0 ... 25.5 seconds</p> <p>Func. 07: Runtime value to open the blind 0 ... 255 seconds</p> <p>Func. 08: -- not used --</p> <p>Func. 09: Set maximal position value 0 ... 100%</p> <p>Func. 10: Angle at the fully OPEN position Bit7 0 = positive sign Bit7 1 = negative sign Bit6...0 0 ... 90 Angle in 2° steps (e.g. 0 = 0°, 90 = 180°)</p> <p>Func. 11: -- not used --</p>

System Specification

24	4	DB0.7...DB0.4	Function	FUNC		Enum:
						0: Do nothing, status request
						1: Blind stops
						2: Blind opens
						3: Blind closes
						4: Blind drives to position with angle value (see remark 2)
						5: Blind opens for time (position value) and angle (angle value)
						6: Blind closes for time (position value) and angle (angle value)
						7: Set Runtime parameters (see remark 3)
						8: Set angle configuration (see remark 3)
						9: Set Min, Max values (see remark 4)
						10: Set slat angle for SHUT and OPEN position (see remark 5)
						11: Set position logic (see remark 6)
28	1	DB0.3	LRN Bit	LRNB	LRN Bit	Enum: 0: Teach-in telegram 1: Data telegram
29	1	DB0.2	Send status flag	SSF	see remark 7	Enum: 0: Send new status of device 1: Send no status (e.g. Global central commands)
30	1	DB0.1	Pos. and Angle flag	PAF		Enum: 0: No Angle and position value available 1: Angle and position value available
31	1	DB0.0	Service Mode Flag	SMF		Enum: 0: Normal operation 1: Service mode: The module disables all senders, except this sender, which has set the service mode. (For example for maintenance)