

EnOcean Equipment Profiles

REVISION HISTORY

Ver.	Editor	Change	Date
2.6.8	NM	Last xml edition of the EEP-Specification	Dec 31, 2017

Copyright © EnOcean Alliance Inc. (2019). All rights reserved.

The information within this document is the property of the EnOcean Alliance and its use and disclosure are restricted. Elements of the EnOcean Alliance specifications may also be subject to third party intellectual property rights, including without limitation, patent, copyright or trademark rights (such a third party may or may not be a member of the EnOcean Alliance.)

The EnOcean Alliance is not responsible and shall not be held responsible in any manner for identifying or failing to identify any or all such third party intellectual property rights. This document and the information contained herein are provided on an "as is" basis and the EnOcean Alliance disclaims all warranties express or implied, including but not limited to

- (1) any warranty that the use of the information herein will not infringe any rights of third parties (including any intellectual property rights, patent, copyright or trademark rights, or
- (2) any implied warranties of merchantability, fitness for a particular purpose, title or non-infringement.

In no event will the EnOcean Alliance be liable for any loss of profits, loss of business, loss of use of data, interruption of business, or for any other direct, indirect, special or exemplary, incidental, punitive or consequential damages of any kind, in contract or in tort, in connection with this document or the information contained herein, even if advised of the possibility of such loss or damage. All Company, brand and product names may be trademarks that are the sole property of their respective owners.

The above notice and this paragraph must be included on all copies of this document that are made.

The EnOcean Alliance "EnOcean Equipment Profiles definitions" are available free of charge to companies, individuals and institutions for all non-commercial purposes (including educational research, technical evaluation and development of non-commercial tools or documentation.)

This specification includes intellectual property ("IPR") of the EnOcean Alliance and joint intellectual properties ("joint IPR") with contributing member companies. No part of this

EnOcean Equipment Profiles Page 1/19

enocean alliance No Wires. No Batteries. No Limits.

System Specification

specification may be used in development of a product or service for sale without being a participant or promoter member of the EnOcean Alliance and/or joint owner of the appropriate joint IPR.

These errata may not have been subjected to an Intellectual Property review, and as such, may contain undeclared Necessary Claims.

EnOcean Alliance Inc. 2400 Camino Ramon, Suite 375 San Ramon, CA 94583 USA Graham Martin Chairman & CEO EnOcean Alliance

EnOcean Equipment Profiles

enocean°alliance No Wires. No Batteries. No Limits.

System Specification

D2-01: Electronic Switches and Dimmers with Local Control

This EEP family shall be used for bidirectional actuators that control electric loads, e.g. for lightning purposes. Switching and dimming is controlled and high-resolution energy measurement is supported. Local Control, either thru a user interface or thru other measures shall be supported on the actuator. This may include other EnOcean enabled devices taught-in to a device belonging to the EEP family, e.g. a simple rocker switch or more sophisticated devices like occupancy sensors with timing control. The proposed EEP family serves up to 30 output channels and allows controlling them either individually or as a bulk. Extension of this EEP family is possible in different ways:

- 1. A new device with a different feature mix creates a new TYPE within this EEP family
- -> new column in following table
- 2. An additional feature is added and a new device with a new TYPE is created
- -> new column and new line in following table
- 3. Like 2, but EnOcean communication of the EEP family needs to be extended
- -> new column and new line in following table
- -> one or more additional messages need to be defined

For teach-in and teach-out UTE (Universal Uni- and Bidirectional Teach-In Procedure for EEP based Communication) shall be used.

Supported function of Type	00	01	02	03	04	05	06	07	08	09	0А	ОВ	0C	0D	0E	0F	10	11	12	13	14	15	16
No. of output channels	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	8	4	2
Switching	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Dimming	-	-	Х	Х	Х	Х	-	-	-	Х	-	-	-	-	-	-	-	-	-	-	-	-	Х
Dimming configurable	-	-	-	-	Х	Х	-	-	-	Х	-	-	-	-	-	-	-	-	-	-	-	-	Х
Pilot wire	-	-	-	-	-	-	-	-	-	-	-	-	Х	-	-	-	-	-	-	-	-	-	-
Local control	Х	Х	Х	Х	Х	Х	-	-	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Χ
Local control enable/disable	-	-	-	-	Х	Х	-	-	Х	-	Х	Х	Х	Х	Х	Х	-	-	Х	-	-	Х	Χ
External Switch / Push Button Control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-	-	X	-	-	Х	Χ
External Switch / Push Button Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-	-	Χ	-	-	Х	Χ
Auto OFF Timer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-	-	X	-	-	Х	Χ
Delay OFF Timer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-	-	Χ	-	-	Χ	Χ
Taught-in devices enable/disable 2)	-	-	-	-	Х	Х	-	-	Х	Х	Х	Х	Х	Х	Х	Х	-	-	X	-	-	-	-
User interface day/night mode	-	-	-	-	-	Х	-	-	Χ	-	Х	Χ	Х	Χ	Χ	Х	-	-	Х	-	-	Χ	Χ
Over current reporting	-	-	-	-	Х	Х	-	-	Х	Х	-	-	Х	-	-	-	-	-	-	-	-	-	-
Over current configurable	-	-	-	-	Χ	Х	-	-	Х	-	-	-	Χ	-	-	-	-	-	-	-	-	-	-
Energy measurement	Х	-	Х	-	Х	Х	Χ	-	Χ	Χ	-	Χ	Х	-	Х	-	Х	-	-	-	-	-	-
Power measurement	-	-	-	-	Х	Х	-	-	Χ	Х	-	Х	Х	-	Х	-	-	-	-	-	-	-	-
Measurement Roll Over 1)	Х	-	Х	-	-	-	Χ	-	-	-	-	Χ	-	-	Х	-	Х	-	-	-	-	-	-
Measurement Auto Scaling 1)	-	-	-	-	Х	Х	-	-	Х	Х	-	-	Х	-	-	-	-	-	-	-	-	-	-
Measurement configurable	-	-	-	-	-	Х	-	-	Х	Х	-	Χ	Х	-	Х	-	-	-	-	-	-	-	-
Measurement report on query	Х	-	Х	-	Х	Х	X	-	Х	Х	-	Х	Х	-	Х	-	Х	-	-	-	-	Х	-
Measurement auto reporting	-	-	-	-	Х	Х	-	-	Х	Х	-	Χ	Х	-	Х	-	-	-	-	-	-	-	-
Default state configurable	-	-	-	-	-	Х	-	-	Х	Х	Х	Х	Х	X	Х	Х	-	-	X	-	-	Х	-
Error level reporting	-	-	-	-	-	Х	-	-	Χ	Х	-	-	Х	-	-	-	-	-	-	-	-	Х	-
Power Failure Detection	-	-	-	-	-	-	-	-	-	-	Х	Х	-	-	-	-	-	-	-	-	-	-	-
Power Failure Detection enable/disable	-	-	-	-	-	-	-	-	-	-	Х	Χ	-	-	-	-	-	-	-	-	-	-	-
Maximum Dimming Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х
Minimum Dimming Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х

¹⁾ A device may either support Measurement Roll Over or Measurement Auto Scaling.

EnOcean Equipment Profiles

Enable / disable only effects devices that are taught-in to a device belonging to this EEP family; it does not effect communication between a device belonging to this EEP family and any other entity where this device has been taught-in by itself.



RORG	D2	VLD Telegram
FUNC	01	Electronic Switches and Dimmers with Local Control
TYPE	16	Type 0x16

Submitter: Menred GmbH

<u>Description</u>
This profile is used to adjust the incandescence of two types of lamp, an ordinary and a LED one. The principle used is dimming, linearly for an ordinary lamp and nonlinearly for the LED lamp (due to the light dimming characteristics of each kind of light). The dim value itself will be always between 0 and 100%.

The maximum and minimum values are received at the same time; the device knows whether or not the values are valid by comparing them. If an invalid value is entered, the device discards this data and no change is applied. To know the valid values please refer to the "ValidRange" section of the commands description.

Data exchange

Direction: bidirectional

Addressing: unicast (ADT) / broadcast

Communication trigger: data change-triggered / time-triggered

Communication interval: 100 ms

Trigger event: e.g.: event description, threshold/delta for observed value, downtime, heartbeat, ...

Tx delay: default 100 - 200 ms, max. 5000 ms

Rx timeout: 100 ms (minimum time between two received messages)

Teach-in

Teach-in method: RPS teach-in / 1BS teach-in / 4BS teach-in 1 / Universal teach-in (UTE)

Security

Encryption supported: no Security level format: -

Supported command	Type 0x16
0x1 – Actuator Set Output	Х
0x2 – Actuator Set Local	X
0x3 – Actuator Status Query	Х
0x4 – Actuator Status Response	Х
0x5 – Actuator Set Measurement	-
0x6 – Actuator Measurement Query	-
0x7 – Actuator Measurement Response	-
0x8 – Actuator Set Pilot Wire Mode	-
0x9 – Actuator Pilot Wire Mode Query	-
0xA – Actuator Pilot Wire Mode Response	-
0xF – Actuator Set Dimming Limits, Dimming Limits Query, Dimming Limits Response (= Extended commands)	Х

Supported Extended command	0xF
0x0 – Actuator Set Dimming Limits	Х
0x1 – Actuator Dimming Limits Query	Х
0x2 – Actuator Status Query	Х

EnOcean Equipment Profiles Page 4/19



CMD 0x1 - Actuator Set Output

This message is sent to an actuator. It controls switching / dimming of one or all channels of an actuator.

Command ID 01 (CMD)



REMARK:

In case an Actuator Set Output message specifies a parameter that is not supported by the addressed device, such device should react as following:

- Channel not supported by device -> ignore message
- Dimming command to switching device -> no change of status
- Dimming command with non-supported speed -> dim with regular speed

RECOMMENDATION:

Dimmers should take things like phase shifting into account to provide dimming based on power consumption (results in brightness for lamps) rather than interpreting percentage values as phase angle only.

Offset	Size	Data	ShortCut	Description	Vali	d Range	Scale	Unit
0	4	Not Used (=	0)					
4	4	Command ID	CMD	command identifier	Enum: 0x01: ID 01	 8		
8	3	Dim value	DV		Enum: 0x00: 0x01: 0x02: 0x03: 0x04:	Switch to new output Dim to new output Dim to new output Dim to new output Stop dimming	t value – dim tim t value – dim tim	ner 2
					0x050x07			
11	5	I/O channel	I/O		Enum:		W - 26	
					0x000x1D:	Output channel (to	o load)	
					0x1E:	All output channel device	s supported by t	he
					0x1F:	Input channel (fro	m mains supply)	
16	1	Not Used (=	0)		20			
17	7	Output value	ov		Enum:	V	- 110000000	
					0x00:	Output value 0%	Control Contro	
						: Output value 1% t	to 100% or ON	
					0x650x7E			
					0x7F:	Output value not v	valid / not application	able



CMD 0x2 - Actuator Set Local

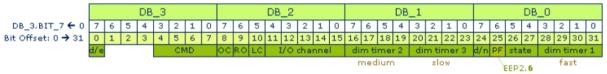
This message is sent to an actuator. It configures one or all channels of an actuator.

Response Timing: None

RECOMMENDATION:

In case the device implements an internal order for dim timers, this order should be from "dim timer 1" (fast) to "dim timer 3" (slow). The configured time shall always be interpreted for a full range (0 to 100%) dimming.

Command ID 02 (CMD)



EnOcean Equipment Profiles Page 6/19



Offset	Size	Data	ShortCut	Description		Valid Range	Scale	Unit
0	1	Taught-in devices	d/e		Enum:			
						Disable taught-in de EEP)	vices (with diff	ferent
						Enable taught-in dev EEP)	vices (with diff	erent
1	3	Not Used (= 0)						
4	4	Command ID	CMD	Command identifier	Enum: 0x02:	: ID 02		
8	1	Over current shut down	ос		Enum:			
					0b0:	Over current shut do	own: static off	
						Over current shut do restart	own: automation	С
9	1	reset over current shut	RO		Enum:			
		down			0b0:	Reset over current s	shut down: not	active
						Reset over current s signal	shut down: trig	iger
10	1	Local control	LC		Enum:			
						Disable local control		
	_				0b1:	Enable local control		
11	5	I/O channel	I/O		Enum:			
					0x00	0x1D:	nnel (to load)	
					0x1E	the device	nannels suppor	
					0x1F:	: Input chann supply)	el (from mains	5
16	4	Dim timer 2	DT2		Enum:			
					0x00			
					0x01		[0,5 7,5s /	steps
20	4	Dim timer 3	DT3		Enum:			
					0x00			
					0x01		[0,5 7,5s /	steps
24	1	User interface	d/n		Enum:			
		indication				User interface indica		
						User interface indica	ation: night op	eration
25	1	Power Failure	PF		Enum:			_
						Disable Power Failur		-
26	2	Default etate	DC		 	Enable Power Failure	e Detection	
26	2	Default state	DS		Enum:	· Dofault state · 00/	or OFF	
						: Default state: 0% : Default state: 100		
						: Default state: 100		s state
						: Not used	citibet previou	3 state
28	4	Dim timer 1	DT1		Enum:			
			_		0×00	: Not used		
					0x01		[0,5 7,5s /	steps
					OKOTIII	5,1311 5,55]		

EnOcean Equipment Profiles Page 7/19



CMD 0x3 - Actuator Status Query

This message is sent to an actuator. It requests the status of one or all channels of an actuator.

Response Timing:

An Actuator Status Response message shall be received within a maximum of 300ms from the time of transmission of this message. In case no such response is received within this time frame the action shall be treated as completed without result.

Command ID 03 (CMD) DB_1.BIT_7 ← 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 Bit Offset: 0 → 15 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Offset	Size	Data	ShortCut	Description	Valid	l Range	Scale	Unit
0	4	Not Used (=	0)					
4	4	Command ID	CMD	Command identifier	Enum: 0x03: ID 03	_		
8	3	Not Used (=	0)					
11	5	I/O channel	I/O		Enum: 0x000x1D:	Output channel (to	o load)	
					0x1E:	All output channel device	s supported by t	ne
					0x1F:	Input channel (fro	m mains supply)	

CMD 0x4 - Actuator Status Response

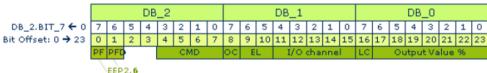
This message is sent by an actuator if one of the following events occurs:

- Status of one channel has been changed locally
- Message Actuator Status Query has been received

Response Timing:

This message shall be sent within a maximum of 50ms from the time of reception of the Actuator Status Query message.

Command ID 04 (CMD)



REMARK 1:

In case an Actuator Status Query message specifies a parameter that is not supported by the device being addresses, such device shall ignore the message and shall not answer using the Actuator Status Response message.

REMARK 2:

In case an Actuator Status Query message queries all output channels supported by a device being addresses, such device shall answer per each output channel by using an individual Actuator Measurement Response message.

EnOcean Equipment Profiles Page 8/19



Offset	Size	Data	ShortCut	Description	Valid Range Scale Unit
0	1	Power Failure	PF		Enum:
					Power Failure Detection disabled/not 0b0: supported
					Power Failure Detection enabled 0b1:
1	1	Power Failure	PFD		Enum:
		Detection			Power Failure not detected/not 0b0: supported/disabled
					Power Failure Detected 0b1:
2	2	Not Used (= 0)			
4	4	Command ID	CMD	Command identifier	Enum: 0x04: ID 04
8	1	Over current switch	ОС		Enum:
		off			Over current switch off: ready / not 0b0: supported
					Over current switch off: executed 0b1:
9	2	Error level	EL		Enum:
					0b00: Error level 0: hardware OK
					0b01: Error level 1: hardware warning
					0b10: Error level 2: hardware failure
					0b11: Error level not supported
11	5	I/O channel	I/O		Enum:
					0x000x1D: Output channel (to load)
					0x1E: Not applicable, do not use
					0x1F: Input channel (from mains supply)
16	1	Local control	LC		Enum:
					0b0: Local control disabled / not supported
					0b1: Local control enabled
17	7	Output value	ov		Enum:
					0x00: Output value 0% or OFF
					0x010x64: Output value 1% to 100% or ON
					0x650x7E: Not used
					0x7F: output value not valid / not set

EnOcean Equipment Profiles Page 9/19



CMD 0x5 - Actuator Set Measurement

The command defines values at offset 32 and at offset 40 which are the limits for the transmission periodicity of messages. MIT must not be set to 0, MAT \geq MIT.

Response Timing: None

Command ID 05 (CMD) DB_5.BIT_7 + 0 Bit Offset: 0 + 47 O 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 OMD RM RE k/p I/O channel LSB Unit MSB max. time Responce mess. Measurement delta to be reported

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	4	Not Used (= 0)		•			
4	4	Command ID	CMD	Command identifier	Enum: 0x05: ID 05		
8	1	Report measurement	RM		Report measu 0b0: only Report measu	ırement: que	
9	1	Reset measurement	RE		0b1: auto reporting Enum: Reset measur 0b0: Reset measur 0b1: signal	rement: not a	
10	1	Measurement mode	e/p		Enum: 0b0: Energy meas 0b1: Power measu		
11	5	I/O channel	I/O		0x000x1D: load) 0x1E: All our suppo 0x1F: Input	t channel (to tput channels orted by the d channel (fron s supply)	evice
16	4	Measurement delta to be reported (LSB)	MD_LSB		04095	04095	N/A
20	1	Not Used (= 0)					
21	3	Unit	UN		0x01: Energy 0x02: Energy 0x03: Power	gy [Ws] gy [Wh] gy [KWh] er [W] used	
24	8	Measurement delta to be reported (MSB)	MD_MSB		04095	04095	N/A
32	8	Maximum time between two subsequent actuator messages	MAT	Measurement Response messages [10s]	Enum: 1255: 0: Reserved	s 102550	_
40	8	Minimum time between two subsequent actuator messages	MIT	Measurement Response messages [s]	Enum: 1255: 0: Reserved	s 1255	

EnOcean Equipment Profiles Page 10/19



CMD 0x6 - Actuator Measurement Query

This message is sent to an actuator. The actuator replies with an Actuator Measurement Response message.

Response Timing:

An Actuator Message Response message shall be received within a maximum of 300ms from the time of transmission of this message. In case no such response is received within this time frame the action shall be treated as completed without result.

Command ID 06 (CMD) DB_1 DB_0 DB_1.BIT_7 ← 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 Bit Offset: 0 → 15 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 CMD Qu | VO channel

Offset	Size	Data	ShortCut	Description	Vali	d Range	Scale	Unit
0	4	Not Used (=	0)					
4	4	Command ID	CMD	Command identifier	Enum: 0x06: ID 06	_		
8	2	Not Used (=	0)					
10	1	Query	qu		Enum: 0b0: Query 6 0b1: Query p			
11	5	I/O channel	I/O		0x000x1D: 0x1E: 0x1F:	Output channel (t All output channel device Input channel (fro	ls supported by t	

CMD 0x7 - Actuator Measurement Response

This message is sent by an actuator if one of the following events occurs:

- Measurement results trigger an automated transmission (see Actuator Set Measurement message)
- Message Actuator Measurement Query has been received

Response Timing:

This message shall be sent within a maximum of 50ms from the time of reception of the Actuator Measurement Query message.

	Con	nma	nd	ID	07	((MI	D)																																			
			DB	_5		DB_4								Т	DB_3										DB_	2			П			DB	_1			П	DB_0						
DB_5.BIT_7 ← 0 Bit Offset: 0 → 47	7	6 5	4	3	2	1 0	7	7 6	5	4	3	2	1 0	7	7 6	5	4	3	2	1	0	7	6	5	4	3	2 1	По	7	6	5	4	3	2	1	이	7 7	5];	5 4	- 3	2	1	이
Bit Offset: 0 → 47	0	1 2	3	4	5	6 7	1 8	9	10	11	12	13 1	4 1	5 1	6 1	7 18	19	20	21	22	23	24 :	25 2	26	27	28 2	9 3	0 3:	1 32	33	34	35	36	37	38	39	40 4	1 4	2 4:	3 44	45	46	47
	CIVID Unit I/O channel (MSB)												3)										M	east	urem	ent	valu	e											(LSE	0			

REMARK 1

In case an Actuator Measurement Query message specifies a parameter that is not supported by the device

EnOcean Equipment Profiles Page 11/19



addressed, such device shall ignore the message and shall not answer using the Actuator Measurement Response message.

REMARK 2:

In case an Actuator Measurement Query message queries all output channels supported by a device being addresses, such device shall answer per each output channel by using an individual Actuator Measurement Response message.

Offset	Size	Data	ShortCut	Description	Valid F	tange	Scale	Unit
0	4	Not Used (= 0)						
4	4	Command ID	CMD	Command identifier	Enum:			
					0x07: ID 07			
8	3	Unit	UN		Enum:			
					0x00:	Energy [Ws]		
					0x01:	Energy [Wh]		
					0x02:	Energy [KWl	h]	
					0x03:	Power [W]		
					0x04:	Power [KW]		
					0x050x07	: Not used		
11	5	I/O channel	I/O		Enum:			
						Output chan	nel (to load	I)
					0x000x1D:			
					0x1E:	Not applicab	le, do not ι	ise
					0x1F:	Input channe supply)	el (from ma	ains
16	32	Measurement value (4 bytes)	MV	DB3 = MSB / DB0 = LSB	0429496729	95		N/A

CMD 0x8 - Actuator Set Pilot Wire Mode

	Co	mr	na	nd	ID	0	8	(CI	MD)						
				DB	_1							DB	_0			
	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Bit Offset: 0 → 15	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
						CI	4D								PM	

Offset	Size	Data	ShortCut	Description	Valid Range Scale Unit
0	4	Not Used (= 0))		
4	4	Command ID	CMD	Command identifier	Enum:
					0x08: ID 08
8	5	Not Used (= 0)			
13	3	Pilotwire mode	PM		Enum:
					0x00: Off
					0x01: Comfort
					0x02: Eco
					0x03: Anti-freeze
					0x04: Comfort-1
					0x05: Comfort-2

EnOcean Equipment Profiles Page 12/19



CMD 0x9 - Actuator Pilot Wire Mode Query

Command ID 09 (CMD) | DB_0 | | 7 6 5 4 3 2 1 0 | | 0 1 2 3 4 5 6 7 | | CMD |

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	4	Not Used (=	0)				
4	4	Command ID	CMD	Command identifier	Enum:		
					0x09: ID 09	9	

CMD 0xA - Actuator Pilot Wire Mode Response

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	4	Not Used (= 0))				
4	4	Command ID	CMD	Command identifier	Enum:		
					0x0A: ID 0A	١	
8	5	Not Used (= 0)					
13	3	Pilotwire mode	PM		Enum:		
					0x00: Off		
					0x01: Comf	ort	
					0x02: Eco		
					0x03: Anti-	freeze	
					0x04: Comf	ort-1	
					0x05: Comf	ort-2	

EnOcean Equipment Profiles Page 13/19



CMD 0xB - Actuator Set External Interface Settings



Offset	Size	Data	ShortCut	Description	Valid Ra	ange	Scale	Unit
0	4	Not Used (= 0)		•				
4	4	Command ID	CMD	Command identifier	Enum:	_		
					0x0B: ID 0B			
8	3	Not Used (= 0)						
11	5	I/O channel	I/O		Enum:			
					0x000x1D:	Output channel	(to load)
						All output chan by the device	nels supp	oorted
						Input channel (supply)	from ma	ins
16	16	Auto OFF Timer	AOT	Timer to automatically set	Enum:			
				OFF output channel when it is set ON	0x0000:	Timer deactivated		
					0x00010xFFF	E:	0.1.	6553.4 s
					0xFFFF:	Does not modify save value	d	
32	16	Delay OFF	DOT	Delay timer before setting	Enum:			
		Timer		output channel to OFF value received by radio	0x0000:	Timer deactivated		
				cmd	0x00010xFFF	-E:	0.1.	6553.4 s
					0xFFFF:	Does not modify save value	ed	
48	2	External	EBM	External interface mode	Enum:			
		Switch/Push			0b00: Not ap	plicable	_	
		Button			0b01: Extern	al Switch	_	
					0b10: Extern	al Push Button		
					0b11: Auto d	etect		
50	1	2-state switch	SWT	Switching state	Enum:			
					0b00: Change	e of key state s	ets ON o	r OFF
						c ON/OFF posit		
						en contacts are		
	_	Not Head (a)			OFF WI	nen contacts ar	e open.	
51	5	Not Used (= 0)						

EnOcean Equipment Profiles Page 14/19



CMD 0xC - Actuator External Interface Settings Query

Command ID OC (CMD)

				DB	_1							DB	_0			
DB Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Bit Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
						CI	ИD					I	/0	Cha	nne	I

Offset	Size	Data	ShortCut	Description	Valid	l Range	Scale	Unit
0	4	Not Used (=	0)					
4	4	Command ID	CMD	Command identifier	Enum: 0x0C: ID 0C	_		
8	3	Not Used (=	0)					
11	5	I/O channel	I/O		Enum: 0x000x1D:	Output channel (to	load)	
					0x1E: 0x1F:	All output channel device Input channel (fro	,	

EnOcean Equipment Profiles Page 15/19



CMD 0xD - Actuator External Interface Settings Response

1	Con	nma	and	ID	00) (CM	D)																																								
			DE	3_6			Т			DB	_5						DE	3_4						DB	3_3			Т			DB.	2			Т			DB_	1			Т			DB.	0		
DB Bit	DB BIE 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 7 6 5 4 3 2 1 0 7 7 6 5 4 3 2 1 0 7 6 5 5 4 3 2 1 0 7 6 5 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 4 3 2 1 0 7 6 5 6 5 6 5 6 5 6 6 5 6 6 6 6 6 6 6 6															3 2	1	0																														
Bit Offset	0 1	1 2	3	4	5	6 7	8	9	10	11	12	13	14	15 1	6 1	7 1	8 19	20	21	22	23 2	4 2:	3 26	27	28	29	30	31 3	2 3	3 34	35	36 3	37 3	8 39	40	41	42	43 4	14 4	5 4	6 43	7 48	49	50	51	52 5	3 54	55
					CM	D					1/0	Cha	nnel								AOT													0	OT							E	ИΒ	SWT				

Offset	Size	Data	ShortCut	Description	Valid R	ange	Scale	Unit
0	4	Not Used (= 0)		•				
4	4	Command ID	CMD	Command identifier	Enum:			
					0x0D: ID 0D			
8	3	Not Used (= 0)	•		•			
11	5	I/O channel	I/O		Enum:			
					0x000x1D:	Output channe	el (to loa	ad)
					0x1E:	Not applicable	:	
					0x1F:	Input channel supply)	(from n	nains
16	16	Auto OFF Timer	AOT	Timer to automatically set	Enum:			
				OFF output channel when it is set ON	0x0000:	Timer deactivated	d	
					0x00010xFFI	FE:	0.	16553.4 s
					0xFFFF:	Does not modify sav value	ed	
32	16	Delay OFF	DOT	Delay timer before setting	Enum:			
		Timer		output channel to OFF value received by radio	0x0000:	Timer deactivated	d	
				cmd	0x00010xFFI	FE:	0.	16553.4 s
					0xFFFF:	Does not modify sav value	ed	
48	2	External	EBM	External interface mode	Enum:			
		Switch/Push			0b00: Not ap	plicable		
		Button			0b01: Extern	al Switch		
					0b10: Extern	al Push Button		
					0b11: Auto d	etect		
50	1	2-state switch	SWT	Switching state	Enum:			
						e of key state		or OFF
						ic ON/OFF posi		
						en contacts ar hen contacts a		
51	5	Not Used (= 0)			OI F WI	nen contacts a	re open.	
21	3	Not used (= 0)						

EnOcean Equipment Profiles Page 16/19



CMD 0xF / ECID 0x00 - Actuator Set Dimming Limits

This message is sent to the actuator. It controls the maximum and minimum brightness of the channel output. If the actuator receives an out of range dimming value or an error command, the following actions should be performed:

- Channel not supported by device -> ignore the message
- Set dimming minimum value is less than 0% -> The minimum value is set to 0%
- Set dimming maximum value greater than 100% -> The maximum value is set to 100%

Command ID 0xF / Ext. CID 0x00

Data Byte												DB	_3							DB	_2							DB.	_1							DB	_0			
DB Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Bit Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Data										EC	ID						I/O									M	IAX۱	/						N	//IN	/				

Offset	Size	Data	ShortCut	Description	Valid	l Range	Scale	Unit
0	4	Not Used (= 0)						
4	4	Command ID	CMD		Enum: 0xF: ID F	-		
8	8	Extended Command ID	ECID		Enum: 0x00: ID 00	_		
16	5	I/O Channel	I/O		Enum:			
					0x000x1D:	Output channel (t	o load)	
					0x1E:	All output channe device	ls supported by	y the
					0x1F:	Reserved		
21	4	Not Used (= 0)						
25	7	Maximum Value	MAXV		Enum:			
					0x00:	Reserved		
					0x010x64	: Set maximum val	ue	
					0x650x7F	: Reserved		
32	1	Not Used (= 0)						
33	7	Minimum Value	MINV		Enum:			
					0x000x63	: Set minimum val	ue	
					0x640x7F	: Reserved	<u> </u>	

EnOcean Equipment Profiles Page 17/19



CMD 0xF / ECID 0x01 - Actuator Dimming Limits Query

Command ID 0xF / Ext. CID 0x01

Data Byte	DB_2											DB	_1			DB_0									
DB Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	
Bit Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Data					CMD						EC	ID				I/O									

Offset	Size	Data	ShortCut	Description	Valid	l Range	Scale	Unit
0	4	Not Used (= 0)						
4	4	Command ID	CMD		Enum: 0xF: ID F	-		
8	_	Extended Command ID	ECID		Enum: 0x01:ID 01	_		
16	5	I/O Channel	I/O		Enum: 0x000x1D: 0x1E: 0x1F:	Single channel (t All output channed device Reserved		the
21	3	Not Used (= 0)	•					

EnOcean Equipment Profiles Page 18/19



CMD 0xF / ECID 0x02 - Actuator Dimming Limits Response

Command ID 0xF / Ext. CID 0x02

Data Byte	DB_4							DB_3							DB_2								DB_1									DB_0								
DB Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Bit Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Data CMD				ECID					I/O							MAXV								MINV																

Offset	Size	Data	ShortCut	Description	Valid	l Range	Scale	Unit
0	4	Not Used (= 0)					'	
4	4	Command ID	CMD		Enum:	_		
-	_				0xF: ID F			
8	8	Extended Command ID	ECID		Enum:			
					0x02: ID 02			
16	5	I/O Channel	I/O		Enum:			
					0x000x1D:	Output channel (t	o load)	
					0x1E:	All output channe device	ls supported by	the the
					0x1F:	Reserved		
21	4	Not Used (= 0)			_			
25	7	Maximum Value	MAXV		Enum:			
					0x00:	Reserved		
					0x010x64	: Set maximum val	ue	
					0x650x7F	: Reserved		
32	1	Not Used (= 0)						
33	7	Minimum Value	MINV		Enum:			
					0x000x63	: Set minimum valu	ie .	
					0x640x7F	: Reserved		

EnOcean Equipment Profiles Page 19/19