

# Type AirLINE8653

CANopen

Object Description

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# 1 Overview

Used datatypes:

Unsigned8	8 bit: unsigned integer
Unsigned16	16 bit: unsigned integer
Unsigned32	32 bit: unsigned integer
REAL32	32 bit: float value IEEE 754

## 2 Objects

### 2.1 Cyclic data

#### Object 0x2500 – BM1\_Valve State

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	7	x		
0x01	BM1_Valve State	Unsigned8	0	x		x
0x02 - 0x07	Internal settings			x		

Description of the subindexes

Value: cyclic output for valve status

Internal settings: for internal use only

#### Object 0x2506 BM1\_Feedback up

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	7	x		
0x01	BM1_Feedback up	Unsigned8	0	x		x
0x02 - 0x07	Internal settings			x		

Description of the subindexes

Value: cyclic output for current position feedback status of the upper end position

Internal settings: for internal use only

#### Object 0x250C BM1\_Feedback Down

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	7	x		
0x01	BM1_Feedback Down	Unsigned8	0	x		x
0x02 - 0x07	Internal settings			x		

Description of the subindexes

Value: cyclic output for current position feedback status of the lower end position

Internal settings: for internal use only

### Object 0x2540 BM1\_Valves

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	7	x		
0x01	BM1_Valves	Unsigned8	0	x	x	x
0x02 - 0x07	Internal settings			x		

Description of the subindexes

Value: cyclic input for valves

Internal settings: for internal use only

### Object 0x2546 BM1\_ext Feedback up

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	7	x		
0x01	BM1_ext Feedback up	Unsigned8	0	x	x	x
0x02 - 0x07	Internal settings			x		

Description of the subindexes

Value: cyclic input for external position feedbacks of the upper end position

Internal settings: for internal use only.

### Object 0x254C BM1\_ext Feedback Down

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	7	x		
0x01	BM1_ext Feedback Down	Unsigned8	0	x	x	x
0x02-0x07	Internal settings			x		

Description of the subindexes

Value: cyclic input for external position feedbacks of the lower end position

Internal settings: for internal use only

## 2.2 Acyclic data



The standard objects are described in separate operating instruction:  
[www.burkert.com](http://www.burkert.com) → Type 8652 “CANopen Network configuration”  
 The device specific objects are described below

### Object 0x200A Power Supplyalarm Values

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	5	x		
0x01	Voltage error limit high	Real32	26.4	x		
0x02	Voltage error limit low	Real32	21.6	x		
0x05	Voltage hysteresis	Real32	1.0	x		

Description of the subindexes

Voltage error limit high: Limit value supply voltage, error message when exceeded  
 Voltage error limit low: Limit value supply voltage, error message when undercut  
 Voltage hysteresis: Tolerance range upper and lower limit value supply voltage

### Object 0x200B Temperature Alarm Values

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	5	x		
0x01	Temperature error limit high	Real32	363.15	x		
0x02	Temperature error limit low	Real32	258.15	x		
0x05	Temperature hysteresis	Real32	2.0	x		

Description of the subindexes

Temperature error limit high: Limit value device temperature, error message when exceeded  
 Temperature error limit low: Limit value device temperature, error message when undercut  
 Temperature hysteresis: Tolerance range upper and lower limit value device temperature

### Object 0x2C00 NoOfValveUnits

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Valve Units	Unsigned8	0	x		

Description of the subindexes

Number Of Valve Units: Number of recognized valve units

### Object 0x2C01 Source

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Source	Unsigned8	0	x	x	

Dummy object

### Object 0x2C02 Feedback Source

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	6	x		
0x01	Unit 1	Unsigned8	0	x	x	

Description of the subindexes

Unit 1: Source for position feedback position

0: Not used

2: external device via bÜS/CANopen, e.g. ME44 8DI

### Object 0x2C0B Actual SCC Pilot Unit 1

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	8	x		
0x01 - 0x08	Valve X	Unsigned32	0	x	x	

Description of the subindexes

Valve X: current status of the switching cycle counter of each pilot valve (set to 0 after maintenance, the maintenance message is then deleted by the device)

### Object 0x2C11 Actual SCC Actuator Unit 1

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	8	x		
0x01 - 0x08	Actuator X	Unsigned32	0	x	x	

Description of the subindexes

Actuator X: current status of the switching cycle counter of each actuator (set to 0 after maintenance, the maintenance message is then deleted by the device)

### Object 0x2C17 SCC Limit Pilot

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	SCC limit pilot	Unsigned32	30 000 000	x		

Description of the subindexes

SCC limit pilot: Limit switching cycle counter for pilot valves

### Object 0x2C18 SCC Limit Actuator Unit 1

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	8	x		
0x01 - 0x08	Actuator X	Unsigned32	30 000 000	x	x	

Description of the subindexes

Actuator X: Limit switching cycle counter for each actuator

### Object 0x2C1E Last Maintenance Actuator Unit 1

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	8	x		
0x01 - 0x08	Actuator X	Unsigned32	0	x	x	

Description of the subindexes

Actuator X: Last scheduled maintenance of each actuator. Value is entered by the device as soon as 'Next Maintenance Actuator Unit 1' is once again larger than the current system period (value in seconds since 01.01.1970).

### Object 0x2C24 Next Maintenance Actuator Unit 1

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	8	x		
0x01 - 0x08	Actuator X	Unsigned32	0	x	x	

Description of the subindexes

Actuator X: Next scheduled maintenance of each actuator (value in seconds since 01.01.1970).



### Object 0x2C2A Channel Diagnostics Unit 1

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	8	x		
0x01-0x08	Channel X	Unsigned16	0	x		

Description of the subindexes

Channel X: Channel diagnostics (bit field)

1-3: unused

4: Short circuit of the position feedback – upper end position

5: Short circuit of the position feedback – lower end position

6: Wire break of the position feedback – upper end position

7: Wire break of the position feedback – lower end position

8: Position feedback error – upper end position

9: Position feedback error – lower end position

10: Actuator maintenance necessary

11: Pilot valve maintenance necessary

12: Scheduled maintenance necessary

13-16: unused

### Object 0x2C30 Activate SCC Pilot

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	6	x		
0x01	Unit 1	Unsigned8	0	x	x	

Description of the subindexes

Unit 1: activates/deactivates switching cycle counter for pilot valves (bit field)

### Object 0x2C31 Activate SCC Actuator

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	6	x		
0x01	Unit 1	Unsigned8	0	x	x	

Description of the subindexes

Unit 1: activates/deactivates switching cycle counter for actuators (bit field)

### Object 0x2C32 Fault Values

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	6	x		
0x01	Unit 1	Unsigned8	0	x	x	

Description of the subindexes

Unit 1: State of valve in case of an error (bit field). Is only considered if the corresponding valve is not activated in 'Fault Actions'.

Valve activated: the valve is actuated in case of an error

Valve not activated: the valve is not actuated in case of an error

### Object 0x2C33 Fault Actions

Sub-Index	Name	Data type	Default	Access		PDO mappable
				Read	Write	
0x00	Number Of Entries	Unsigned8	6	x		
0x01	Unit 1	Unsigned8	0	x	x	

Description of the subindexes:

Unit 1: Action in case of an error (bit field).

Valve marked: in case of an error, the valve retains its current state

Valve not marked: in case of an error, the valve assumes the state from 'Fault Values'

### Object 0x4900 Display Backlight Brightness

Sub-Index	Name	Data type	Default	Access		pdo mappable
				Read	Write	
0x00	Display Backlight Brightness	Unsigned16	70	x	x	

Description of the subindexes

Display Backlight Brightness: Brightness in percentage terms, if screensaver is not active

### Object 0x4901 Display Contrast

Sub-Index	Name	Data type	Default	Access		pdo mappable
				Read	Write	
0x00	Display Contrast	Unsigned16	50	x	x	

Description of the subindexes

Display Contrast: Contrast in percentage terms

### Object 0x4902 Display Timeout

Sub-Index	Name	Data type	Default	Access		pdo mappable
				Read	Write	
0x00	Display Timeout	Unsigned16	3600	x	x	

Description of the subindexes

Display Timeout: Time in seconds until the screensaver is active

### Object 0x4903 Backlight Value Screensaver

Sub-Index	Name	Data type	Default	Access		pdo mappable
				Read	Write	
0x00	Backlight Value Screensaver	Unsigned8	20	x	x	

Description of the subindexes

Backlight Value Screensaver: Brightness in percentage terms, if screensaver is active

### Object 0x4905 Display Orientation

Sub-Index	Name	Data type	Default	Access		pdo mappable
				Read	Write	
0x00	Display Orientation	Unsigned8	0	x	x	

Description of the subindexes

Display Orientation : Installation position fieldbus gateway

0: Automatic

1: Electrical connection top

2: Electrical connection bottom