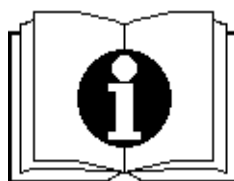


CUSTOMER: SIR	DATE: 14/04/2021	REV. 1.0
RED.: Lain B.	VER.: Ghirardello A.	SW REL.: /

Modbus TCP Protocol for SIR column



CUSTOMER: SIR	DATE: 14/04/2021	REV. 1.0
RED.: Lain B.	VER.: Ghirardello A.	SW REL.: /

Sommario

1) Modbus Function Codes.....	3
2) Modbus Slave ID	3
3) Measures	3
4) Commands.....	4

CUSTOMER: SIR	DATE: 14/04/2021	REV. 1.0
RED.: Lain B.	VER.: Ghirardello A.	SW REL.: /

1) Modbus Function Codes

The commands and the measurements of this application are accessible using the Modbus TCP protocol.

The following Modbus function codes are implemented:

FUNCTION CODE	NAME	DESCRIPTION
0x03	Read holding Registers	Reading a modifiable register, parameters
0x04	Read Input Registers	Reading a non-editable register, measures
0x06	Write Single Register	Writing a single register, parameter
0x10	Write Multiple Registers	Writing multiple register, parameters
0x17	Read/Write Multiple registers	Reading and writing holding registers in the same operation

2) Modbus Slave ID

Slave ID is always 1 (0x01).

3) Measures

Use function code **0x04** (Read Input Registers).

Measures (read only) of 7BL00045_SIR				
ADDRESS	DESCRIPTION	UM	LENGHT	DATA TYPE
10600	Motor <u>speed</u>	[rpm]	1 word	[unsigned]
10601	Motor direction	-	1 word	[unsigned]
10602	Reserved	-	1 word	-
10603	Motor voltage	[VRMS/10]	1 word	[unsigned]
10604	Motor current	[ARMS]	1 word	[unsigned]
10605	Power stage temperature	[°C]	1 word	[unsigned]
10606	Status	-	1 word	[unsigned]
10607	Alarms	-	1 word	[unsigned]
10608	Firmware Version	-	1 word	[unsigned]
10609	Reserved	-	1 word	-
10610	Column's elevation	[mm/10]	1 word	[unsigned]

CUSTOMER: SIR	DATE: 14/04/2021	REV. 1.0
RED.: Lain B.	VER.: Ghirardello A.	SW REL.: /

4) Commands

Commands (read and write) of 7BL0045_SIR

ADDRESS	DESCRIPTION	MIN. VAL.	MAX. VAL.	UM	LENGTH	DATA TYPE
604	Electrical <u>brake</u>	0	1	-	1 word	[unsigned]
605	Electrical brake delay	0	100	[s/10]	1 word	[unsigned]
606	Reserved	0	0	-	1 word	-
607	Reserved	0	0	-	1 word	-
608	Column's target elevation	0	20000	[mm/10]	1 word	[unsigned]
609	Start the zero search	0	1	-	1 word	[unsigned]