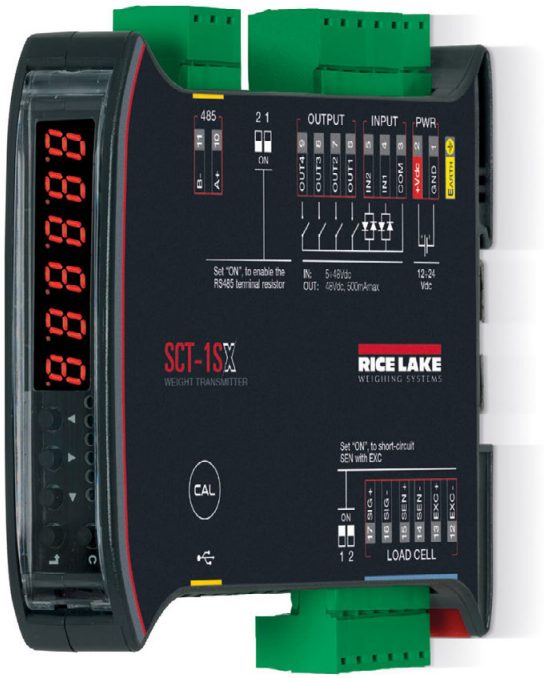
SCT-1SX Series

Firmware version 01.21.01

Fieldbus Protocol



RICE LAKE®
WEIGHING SYSTEMS

January 4, 2024

PN 221628 Rev A

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www.ricelake.com

Contents

Introduction

Thank you for purchasing this product.

This manual contains fieldbus information for the following SCT-1SX digital weight transmitters:

- SCT-1SX-E/IP
- SCT-1SX-MODTCP
- SCT-1SX-PRONET

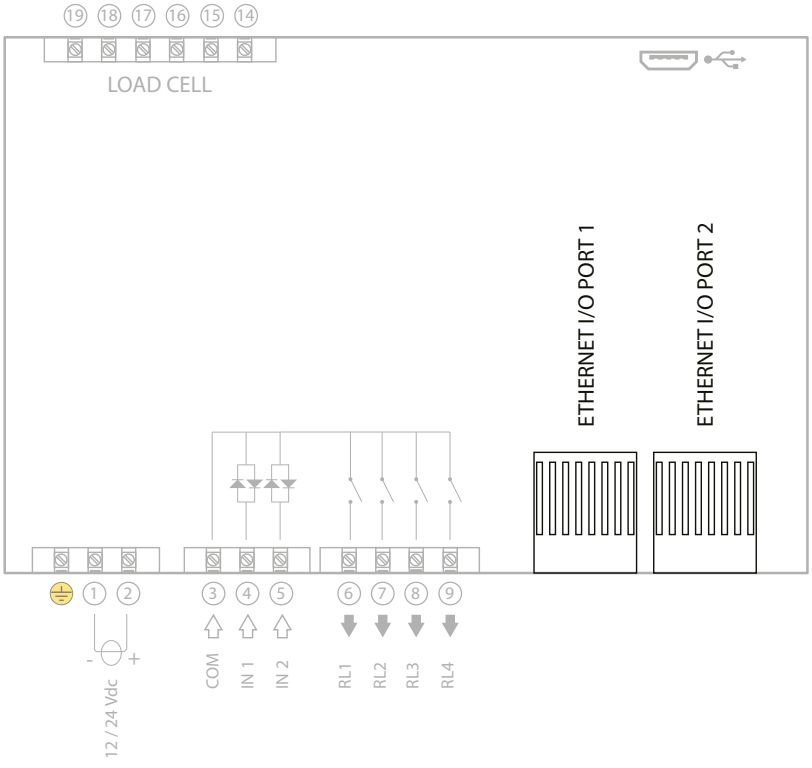
It is recommended that you carefully follow the instructions for programming the weight transmitter; performing actions not indicated in this manual could compromise the functionality of the scale.

Manuals are available from Rice Lake Weighing Systems at www.ricelake.com/manuals
Warranty information is available at www.ricelake.com/warranties

Any problem with the product must be reported to the manufacturer or to the retailer where it was purchased.
Always TURN OFF THE POWER SUPPLY prior to installation or repair action.

Connection

SCT-1SX-E/IP, SCT-1SX-PRONET, SCT-1SX-MODTCP



The connection to the Fieldbus goes through one of the two **ETHERNET** standard connectors of the device.

Fieldbus and Data Format Configuration

The Fieldbus can be set through the configuration menu, following the procedure below:

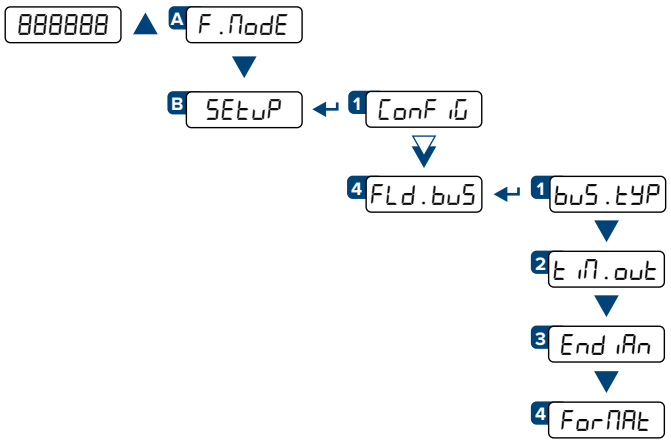
1. Access to the configuration menu:

- Restart the device.
- Press the key ▲ when 888888 is displayed.

2. Scroll the menu with the key ▼ until SEtuP is displayed and press ↵.

3. Scroll the menu with the key ▼ until FLd.bus is displayed and press ↵.

4. Selected the fieldbus type used and configure its parameters.



MENU OVERVIEW bus.tYP

Depending on the selected Fieldbus, set the appropriate configuration parameters:

For Profinet:

ProF in ↵	Aut.CFG	Dynamic IP configuration.
	iP.Add	Static IP address.
	nEt.MSK	Subnet mask.
	GAt.WAY	Gateway.

i The name of the Profinet node to use in the project linked to the network master node is **dini <IP4>**, <IP4> being the last Byte of the IP address incorporated in the device configuration, also when dynamic IP is used.
Ex. IP - 192.168.1.10, the node name will be **dini-010**.
If AUT.CFG parameter = YES, the IP address and Profinet name can be assigned directly from the network.

For Ethernet/IP:

Eth.IP ↵	Aut.CFG	Dynamic IP configuration.
	IP.Add	Static IP address.
	nEt.MSK	Subnet mask.
	GAt.WAY	Gateway.

For Modbus TCP:

Mb.tCP ↵	Aut.CFG	Dynamic IP configuration.
	IP.Add	Static IP address.
	nEt.MSK	Subnet mask.
	GAt.WAY	Gateway.

MENU OVERVIEW t iM.out End iAn ForMAt

t iM.out ↵	no	"Time out" error message displayed only once.
	YES	"Time out" error message repeated.

End iAn ↵	b iG	Big Endian.
	L ittLE	Little Endian.

i

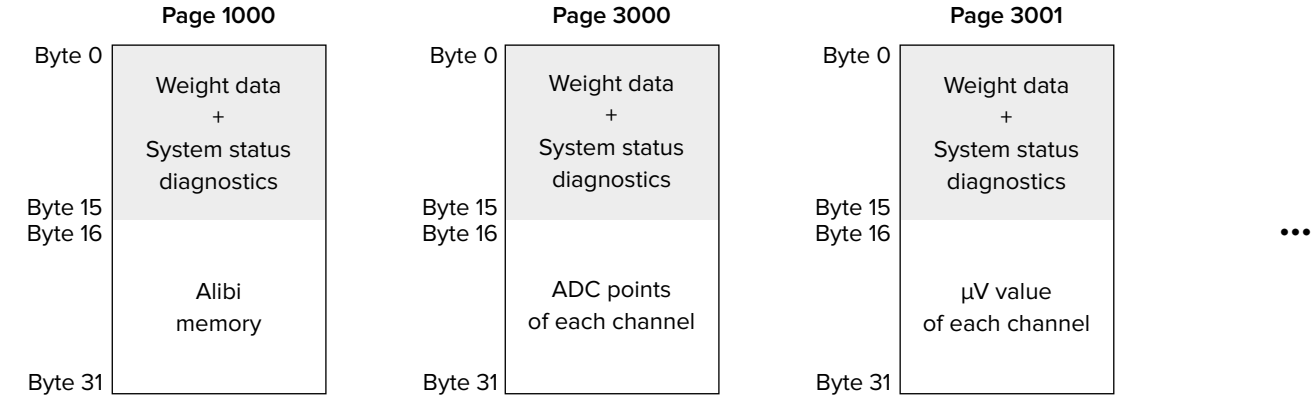
This parameter changes the order of the data sent to and received from the PLC. If data is available but does not relate to data on the display, try changing this parameter.

ForMAt ↵	unS.int	Unsigned integer (read the sign from Input status register).
	FLoAt	Float.
	S iG.int	Signed integer.

Data Reading (Input Area)

- The available data are divided into pages.
- To display data from pages 5xxx you must first send the command 35 (0x23) "LETTURA DATI".
- Depending on the Fieldbus, the data area size can be up to 128 Bytes.
- The size of each SCT-1SX page is 32 Bytes (therefore, even if the page size is 64 or 128 Bytes, only the first 32 available Bytes are used).
- The first 16 Bytes of each page always include the data concerning weight and weighing system status.
- Bytes 16 to 31 contain additional information, depending on the selected page (setup data, alibi memory etc.)
- The page selected by default is:
- - 3001 (0x0BB9).
- In factory configuration the data format is Big Endian. To change the format, follow the procedure on page 6.
- Weight data are expressed with unsigned integers. (Es. 12,345 ⟶ 0x3039). To change it, follow the procedure at page 6.
- µV and ADC points are always expressed with positive and negative integers. (Ex. -12,345 0xCFC7).

Model of the pages in the Input Area:



Available Pages

Page	Name	Desciption	Read	Write
1000 (0x03E8)	Alibi memory	See page 9	●	
3000 (0x0BB8)	ADC values	See page 10	●	
3001 (0x0BB9)	µV values (*)	See page 11	●	
5000 (0x1388)	Calibration 0 - Scale parameters	See page 12	●	●
5001 (0x1389)	Calibration 1 - Calibration points weights	See page 13	●	●
5002 (0x138A)	Calibration 2 - Calibration points ADC	See page 14	●	●
5003 (0x138B)	Calibration 3 - Legal state	See page 15	●	●
5004 (0x138C)	Calibration 4 - Filter and metrical parameters (1/2)	See page 16	●	●
5005 (0x138D)	Calibration 5 - Metrical parameters (2/2)	See page 17	●	●
5006 (0x138E)	Calibration 6 - Quick calibration	See page 18	●	●
5007 (0x138F)	Advanced filters	See page 19	●	●
5008 (0x1390)	Anti-peak filter	See page 20	●	●
5010 (0x1392)	Tare type	See page 21	●	●
5011 (0x1393)	Transmitter SN and firmware	See page 22	●	
5015 (0x1397)	Unit of measure 2 ("ConUEr" mode)	See page 23		
5030 (0x13A6)	Fieldbus configuration	See page 24	●	●
5031 (0x13A7)	Profinet name (only for SCT-1SX)	See page 25	●	●
5100 (0x13EC)	Inputs configuration	See page 26	●	●
5101 (0x13ED) ... **5104** (0x13F2)	Outputs configuration	See page 27	●	●
5110 (0x13F6)	Analog output configuration (1/3)	See page 28	●	●
5111 (0x13F7)	Analog output configuration (2/3)	See page 29	●	●
5112 (0x13F8)	Analog output configuration(3/3)	See page 30	●	●
6100 (0x17D4)	Setpoints values (1/2)	See page 31	●	
6101 (0x17D5)	Setpoints values (2/2)	See page 32	●	

(*) page selected by default at power-up.

Alibi Memory "Page 1000" (0x03E8)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	H	Gross weight.			*B0*	*L*
17		B2					*B1*	
18	30010	B1	L				*B2*	*H*
19		B0					*B3*	
20	30011	B3	H	Tare weight.			*B0*	*L*
21		B2					*B1*	
22	30012	B1	L				*B2*	*H*
23		B0					*B3*	
24	30013	B3	H	ID			*B0*	*L*
25		B2					*B1*	
26	30014	B1	L				*B2*	*H*
27		B0					*B3*	
28	30015	B1	-	Alibi status register			*B0*	-
29		B0					*B1*	
30	30016	-	-	Not used.			-	-
31								

ADC Value "Page 3000" (0x0BB8)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	H	ADC points.			*B0*	*L*
17		B2					*B1*	
18	30010	B1	L				*B2*	*H*
19		B0					*B3*	
20	30011	-	-	Not used.			-	-
...	...							
31	30016							

µV Value "Page 3001" (0x0BB9)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	µV value.			*B0*	-
17		B0					*B1*	
18	30010	-	-	Not used.			-	-
...								
31	30016							

Calibration 0 - Scale Parameters "Page 5000" (0x1388)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	-	Unit of measure	0 = g	1 = kg	*B0*	*L*
17		B2			2 = t	3 = lb	*B1*	
18	30010	B1	-	Range 1 division			*B2*	*H*
19		B0					*B3*	
20	30011	B3	-	Range 2 division			*B0*	*L*
21		B2					*B1*	
22	30012	B1	-	Decimals			*B2*	*H*
23		B0					*B3*	
24	30013	B3	H	Range 1			*B0*	*L*
25		B2					*B1*	
26	30014	B1	L				*B2*	*H*
27		B0					*B3*	
28	30015	B3	H	Range 2			*B0*	*L*
29		B2					*B1*	
30	30016	B1	L				*B2*	*H*
31		B0					*B3*	

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5000.

Calibration 1 - Calibration Points Weights "Page 5001" (0x1389)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Number of calibration points.			*B0*	-
17		B0					*B1*	
18	30010	B1	-	Sample weight 1.			*B0*	*L*
19		B0					*B1*	
20	30011	B1	-				*B2*	*H*
21		B0					*B3*	
22	30012	B1	-	Sample weight 2.			*B0*	*L*
23		B0					*B1*	
24	30013	B1	-				*B2*	*H*
25		B0					*B3*	
26	30014	B1	-	Sample weight 3.			*B0*	*L*
27		B0					*B1*	
28	30015	B1	-				*B2*	*H*
29		B0					*B3*	
30	30016	B1	-	Calibration state (same as page 5006, only reading)			*B0*	-
31		B0					*B1*	

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"**with PARAMETER 1 equals to 5001.

Calibration 2 - Calibration Points ADC "Page 5002" (0x138A)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	H	ADC value of the zero point.			*B0*	*L*
17		B2					*B1*	
18	30010	B1	L				*B2*	*H*
19		B0					*B3*	
20	30011	B3	H	ADC value of the point 1.			*B0*	*L*
21		B2					*B1*	
22	30012	B1	L				*B2*	*H*
23		B0					*B3*	
24	30013	B3	H	ADC value of the point 2.			*B0*	*L*
25		B2					*B1*	
26	30014	B1	L				*B2*	*H*
27		B0					*B3*	
28	30015	B3	H	ADC value of the point 3.			*B0*	*L*
29		B2					*B1*	
30	30016	B1	L				*B2*	*H*
31		B0					*B3*	

To set the data, write them to the same position in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equal to 5002.

Calibration 3 - Legal State "Page 5003" (0x138B)

Byte	*Modbus TCP Register*	Big Endian		Dato		Little Endian	
0	30001	B3	H	Gross weight.		*B0*	*L*
1		B2				*B1*	
2	30002	B1	L			*B2*	*H*
3		B0				*B3*	
4	30003	B3	H	Net weight.		*B0*	*L*
5		B2				*B1*	
6	30004	B1	L			*B2*	*H*
7		B0				*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).		*B1*	-
9		B0				*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).		*B0*	-
11		B0				*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).		*B0*	-
13		B0				*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer 01 = sig. integer	*B0*	-
15		B0			10 = float	*B1*	
16	30009		-	Not used in reading.		-	-
17							
18	30010						
19							
20	30011	B1	-	Pre-calibration state	0 = no.	*B0*	-
21		B0			1 = yes.	*B1*	
22	30012	B1	-	Setup size		*B0*	-
23		B0				*B1*	
24	30013	B1	-	Restricted	0 = internal use.	*B0*	-
25		B0			1 = restricted.	*B1*	
26	30014	-	-	Not used.		-	-
...	...						
31	30016						

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5003.
The instrument will permanently save the setting and reboot.

Calibration 4 - Filter and Metrical Parameters (1/2) "Page 5004" (0x138C)

Byte	*Modbus TCP Register*	Big Endian		Dato		Little Endian	
0	30001	B3	H	Gross weight.		*B0*	*L*
1		B2				*B1*	
2	30002	B1	L			*B2*	*H*
3		B0				*B3*	
4	30003	B3	H	Net weight.		*B0*	*L*
5		B2				*B1*	
6	30004	B1	L			*B2*	*H*
7		B0				*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).		*B1*	-
9		B0				*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).		*B0*	-
11		B0				*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).		*B0*	-
13		B0				*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer 01 = sig. integer	*B0*	-
15		B0			10 = float	*B1*	
16	30009	B1	-	Filter index (see Table 5 page 35)		*B0*	-
17		B0				*B1*	
18	30010	B1	-	Rate custom filter.		*B0*	-
19		B0				*B1*	
20	30011	B1	-	Win custom filter.		*B0*	-
21		B0				*B1*	
22	30012	B1	-	Avg custom filter.		*B0*	-
23		B0				*B1*	
24	30013	B1	-	Pit custom filter.		*B0*	-
25		B0				*B1*	
26	30014	B1	-	Auto zero at start-up.		*B0*	-
27		B0				*B1*	
28	30015	B1	-	Auto zero percentage.		*B0*	-
29		B0				*B1*	
30	30016	B1	-	Zero percentage (by key / command)		*B0*	-
31		B0				*B1*	

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5004.

Calibration 5 - Metrical Parameters (2/2) "Page 5005" (0x138D)

Byte	*Modbus TCP Register*	Big Endian		Dato		Little Endian	
0	30001	B3	H	Gross weight.		*B0*	*L*
1		B2				*B1*	
2	30002	B1	L			*B2*	*H*
3		B0				*B3*	
4	30003	B3	H	Net weight.		*B0*	*L*
5		B2				*B1*	
6	30004	B1	L			*B2*	*H*
7		B0				*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).		*B1*	-
9		B0				*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).		*B0*	-
11		B0				*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).		*B0*	-
13		B0				*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer 01 = sig. integer	*B0*	-
15		B0			10 = float	*B1*	
16	30009	B1	-	Zero tracking.	(see Table 6 page 35)	*B0*	-
17		B0				*B1*	
18	30010	B1	-	Division for stability.	(number of divisions)	*B0*	-
19		B0				*B1*	
20	30011	B1	-	G value of the calibration zone.	G value decimals – 9.7.	*B0*	-
21		B0				*B1*	
22	30012	B1	-	G value of the use zone.	E.g. g=9.80390, the value displayed will be 10390.	*B0*	-
23		B0				*B1*	
24	30013	B1	-	Zero tracking time.	(100-5000ms)	*B0*	-
25		B0				*B1*	
26	30014	B1	-	Stability detection time.	(10-10000ms)	*B0*	-
27		B0				*B1*	
28	30015	B1	-	Additional filter for stability detection.	(0-2000ms, 0 disabled)	*B0*	-
29		B0				*B1*	
30	30016	B1	-	Stability detection divisions.	(1-100 divisions)	*B0*	-
31		B0				*B1*	

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5005.

Calibration 6 - Condensed Calibration "Page 5006" (0x138E)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 34).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	00 = uns. integer 01 = sig. integer		*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Unit of measure.	00 = g	01 = kg	*B0*	-
17		B0			10 = t	11 = lb	*B1*	
18	30010	B1	-	Division.			*B0*	-
19		B0					*B1*	
20	30011	B1	-	Number of decimals.			*B0*	-
21		B0					*B1*	
22	30012	B3	H	Capacity.			*B0*	*L*
23		B2					*B1*	
24	30013	B1	L				*B2*	*H*
25		B0					*B3*	
26	30014	B3	H	Sample weight for calibration.			*B0*	*L*
27		B2					*B1*	
28	30015	B1	L				*B2*	*H*
29		B0					*B3*	
30	30016	B1	-	Calibration state (reading only)	0 (0x00) = Calibration not started.		*B0*	-
					1 (0x01) = Acquisition in progress.			
					2 (0x02) = Acquistion OK.			
					3 (0x03) = Acquisition error.			
31		B0			4 (0x04) = Calibration OK.		*B1*	
					5 (0x05) = Calibration error.			
					6 (0x06) = Zero calibration in progress.			

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5006.

Automatically will be set:
Division 2 = 0, Range 2 = 0, Number of calibration points = 1, Sample weight 2 = 0, Sample weight 3 = 0, ADC value of the point 2 = 0, ADC value of the point 3 = 0.

Advanced Filters "Page 5007" (0x138F)

Byte	*Modbus TCP Register*	Big Endian		Dato		Little Endian	
0	30001	B3	H	Gross weight.		*B0*	*L*
1		B2				*B1*	
2	30002	B1	L			*B2*	*H*
3		B0				*B3*	
4	30003	B3	H	Net weight.		*B0*	*L*
5		B2				*B1*	
6	30004	B1	L			*B2*	*H*
7		B0				*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).		*B1*	-
9		B0				*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).		*B0*	-
11		B0				*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).		*B0*	-
13		B0				*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer 01 = sig. integer	*B0*	-
15		B0			10 = float	*B1*	
16	30009	B1	-	Filter 1 ID.		*B0*	-
17		B0				*B1*	
18	30010	B1	-	Filter 1 value.		*B0*	-
19		B0				*B1*	
20	30011	B1	-	Filter 2 ID.		*B0*	-
21		B0				*B1*	
22	30012	B1	-	Filter 2 value.		*B0*	-
23		B0				*B1*	
24	30013	B1		Filter 3 ID.		*B0*	-
25		B0				*B1*	
26	30014	B1		Filter 3 value.		*B0*	-
27		B0				*B1*	
28	30015	-	-	Not used.		-	-
...							
31	30016						

ID	Filter type	Value
0	-	Filter disabled.
1	Coarse	Frequency, 1 decimal (the value 30 stands for 3,0 Hz)
4	Selective	Frequency, 1 decimal (the value 500 stands for 50,0 Hz)
5	Fine	Percentage, 2 decimal (the value 100 stands for 10%)

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5007.

Anti-Peak Filter "Page 5008" (0x139A)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Lock divisions (PR.LR.dU).			*B0*	-
17		B0					*B1*	
18	30010	B1	-	Unlocked to locked switch time (PR.LR.tM, 0,01 s).			*B0*	-
19		B0					*B1*	
20	30011	B1	-	Unlock divisions (PR.d iU).			*B0*	-
21		B0					*B1*	
22	30012	B1	-	Locked band divisions (PR.bn.dU).			*B0*	-
23		B0					*B1*	
24	30013	B1	-	Locked peak time (PR.t iME, 0,01 s).			*B0*	-
25		B0					*B1*	
26	30014	-	-	Not used.			-	-
...								
31	30016							

To set the data, write the same positions in the output area and use command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 equals to 5008.

Tare Type "Page 5010" (0x1392)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format. (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Tare type.	0 = disabled	1 = locked	*B0*	-
17		B0			2 = unlocked		*B1*	
18	30010	-	-	Not used.			-	-
...								
21	30011							
22	30012	B1	-	Restore zero			*B0*	-
23		B0					*B1*	
24	30013	B1	-	Restore tare			*B0*	-
25		B0					*B1*	
26	30014	-	-	Not used.			-	-
...								
31	30016							

To set the data, write the same positions in the output area and use command **27** (0x1B) **"SETUP WRITING"** with PARAMETER 1 equals to 5010.

Transmitter SN and Firmware "Page 5011" (0x1393)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Hardware ID.			*B0*	-
17		B0					*B1*	
18	30010	B3	H	Firmware version.	B3: 0		*B0*	*L*
19		B2			B2: release		*B1*	
20	30011	B1	L		B1: sub-release		*B2*	*H*
21		B0			B0: bug-release		*B3*	
22	30012	B3	H	SN.			*B0*	*L*
23		B2					*B1*	
24	30013	B1	L				*B2*	*H*
25		B0					*B3*	
26	30014	B1	-	Legal Hardware ID.			*B0*	*L*
27		B0		Legal ID.			*B1*	
28	30015	-	-	Not used.			-	-
...								
31	30016							

Unit of Measure 2 ("CONVER" mode) "Page 5015" (0x1397)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Decimals of the unit of measure 2.		(0 to 4)	*B0*	-
17		B0					*B1*	
18	30010	B1	-	Unit of measure 2.		0 = default	*B0*	-
19		B0				1 = custom	*B1*	
20	30011	B1	-	Division of the unit of measure 2.		(1, 2, 5, 10, 20, 50)	*B0*	-
21		B0					*B1*	
22	30012	B3	H	Conversion factor of the unit of measure 2 (in fixed-point integer 5 decimal places).			*B0*	*L*
23		B2					*B1*	
24	30013	B1	L				*B2*	*H*
25		B0					*B3*	
26	30014	-	-	Not used.			-	-
27								
28	30015							
29								
30	30016							
31								

To set these data write them in the same positions in the output area and use command **27** (0x1B) "**WRITE SETUP**" with parameter 1 equal to 5015.
To make the changes permanent use command **28** (0x1C) "**SAVE SETUP**."

Fieldbus Configuration "Page 5030" (0x13A6)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 34).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 35).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 34).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Baud rate index.			*B0*	-
17		B0					*B1*	
18	30010	B3	H	IP.			*B0*	*L*
19		B2					*B1*	
20	30011	B1	L				*B2*	*H*
21		B0					*B3*	
22	30012	B3	H	Subnet mask.			*B0*	*L*
23		B2					*B1*	
24	30013	B1	L				*B2*	*H*
25		B0					*B3*	
26	30014	B3	H	Gateway.			*B0*	*L*
27		B2					*B1*	
28	30015	B1	L				*B2*	*H*
29		B0					*B3*	
30	30016	B1	-	Dynamic IP (*) / ID.	(*)	0 = disabled	-	-
31		B0				1 = enabled	-	

	Profibus	Devicenet	Canopen	
ID	0 to 126	0 to 63	1 to 127	
Baud rate	-	0: 500kBaud 1: 250kBaud 2: 125kBaud	0: 1MBaud 1: 800kBaud 2: 500kBaud 3: 250kBaud 4: 125kBaud	5: 100kBaud 6: 50kBaud 7: 20kBaud 8: 10kBaud

To set the data, write it in the same positions in the output area and use command **27** (0x1B) **"SETUP WRITING"** with PARAMETER 1 equal to 5030.
To activate the new parameters reboot the instrument with the command **34** (0x22) **"REBOOT DEVICE"**.

Profinet Name (only for SCT-1SX-PRONET) "Page 5031" (0x13A7)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	-	-	1st Profinet name character (ASCII code).			-	-
17		-		2nd Profinet name character (ASCII code).			-	-
18	30010	-	-	3rd Profinet name character (ASCII code).			-	-
19		-		4th Profinet name character (ASCII code).			-	-
20	30011	-	-	5th Profinet name character (ASCII code).			-	-
21		-		6th Profinet name character (ASCII code).			-	-
22	30012	-	-	7th Profinet name character (ASCII code).			-	-
23		-		8th Profinet name character (ASCII code).			-	-
24	30013	-	-	9th Profinet name character (ASCII code).			-	-
25		-		10th Profinet name character (ASCII code).			-	-
26	30014	-	-	11th Profinet name character (ASCII code).			-	-
27		-		12th Profinet name character (ASCII code).			-	-
28	30015	-	-	13th Profinet name character (ASCII code).			-	-
29		-		14th Profinet name character (ASCII code).			-	-
30	30016	-	-	15th Profinet name character (ASCII code).			-	-
31		-		16th Profinet name character (ASCII code).			-	-

Allowed characters:

- a to z (lower case)
- 0 to 9
- symbol "-"

To write the parameters, use command **56** (0x38) **"SAVE PAGE"** with PARAMETER 1 equal to 5031.
To make the changes permanent, send the command **28** (0x1C) **"SAVE SETUP"**.
To activate the new parameters reboot the instrument with the command **34** (0x22) **"REBOOT DEVICE"**.

Inputs Configuration "Page 5100" (0x13EC)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Input 1 function (see table 7 page 35).			*B0*	-
17		B0					*B1*	
18	30010	B1	-	Input 2 function (see table 7 page 35).			*B0*	-
19		B0					*B1*	
20	30011	-	-	Not used.			-	-
...								
31	30016							

To set the data, write the same positions in the output area and use command **56** (0x38) **"SAVE PAGE"** with PARAMETER 1 equals to 5100.
To make the changes permanent, send the command **28** (0x1C) **"SAVE SETUP"**.

Outputs Configuration "Pages 5101 - 5104" (0x13ED - 13F0)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Output function (see table 8 page 35). (*)			*B1*	-
17		B0					*B0*	
18	30010	B1	-	Contact type. (*)	0 = Normally open		*B0*	-
19		B0			1 = Normally close		*B1*	
20	30011	B1	-	Modo di attivazione. (*)	0 = Direct		*B0*	-
21		B0			1 = At stability		*B1*	
22	30012	B1	-	Hysteresis. (*)	0 = Disabled		*B0*	-
23		B0			1 = Enabled		*B1*	
24	30013	B1	-	Sign. (*)	0 = Positive		*B1*	-
25		B0			1 = Negative		*B0*	
26	30014	B1	-	Activation delay. (*)	value in 0,1 s (max. 1000)		*B0*	-
27		B0					*B1*	
28	30015	B1	-	Activation time. (*)	value in 0,1 s (max. 1000)		*B1*	-
29		B0					*B0*	
30	30016	-	-	Not used.			-	-
31								

(*)
Page 5101 - Output 1
Page 5102 - Output 2
Page 5103 - Output 3
Page 5104 - Output 4

To set the data, write the same positions in the output area and use command **56** (0x38) **"SAVE PAGE"** with PARAMETER 1 equals to 5101-5104.
To make the changes permanent, send the command **28** (0x1C) **"SAVE SETUP"**.

Analogue Output Configuration (1/3) "Page 5101" (0x13F6)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B1	-	Operative mode	0 = Gross weight.		*B0*	-
17		B0			1 = Net weight.		*B1*	
18	30010	-	-	Not used.			-	-
...								
21	30011							
22	30012	B1	-	DAC value relative to 0V.			*B0*	-
23		B0					*B1*	
24	30013	B1	-	DAC value relative to 10 V.			*B0*	-
25		B0					*B1*	
26	30014	B1	-	DAC value relative to 4 mA.			*B0*	-
27		B0					*B1*	
28	30015	B1	-	DAC value relative to 20 mA.			*B0*	-
29		B0					*B1*	
30	30016	-	-	Not used.			-	-
31								

To set the data, write the same positions in the output area and use command **56** (0x38) **"SAVE PAGE"** with PARAMETER 1 equals to 5110.
To make the changes permanent, send the command **28** (0x1C) **"SAVE SETUP"**.

Analogue Output Configuration (2/3) "Page 5102" (0x13F7)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	3009	-	-	Not used.			-	-
...								
19	30010							
20	30011	B3	H	Weight of the calibration point 1.			*B0*	*L*
21		B2					*B1*	
22	30012	B1	L				*B2*	*H*
23		B0					*B3*	
24	30013	B1	-	DAC value relative to calibration point 1.			*B0*	-
25		B0					*B1*	
26	30014	-	-	Not used.			-	-
...								
29	30015							
30	30016	B1	-	Current value of the analogue output (DAC).			*B0*	-
31		B0					*B1*	

To set the data, write the same positions in the output area and use command **56** (0x38) **"SAVE PAGE"** with PARAMETER 1 equals to 5111.

To make the changes permanent, send the command **28** (0x1C) **"SAVE SETUP"**.

Analogue Output Configuration (3/3) "Page 5102" (0x13F8)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	H	Weight of the calibration point 2.			*B0*	*L*
17		B2					*B1*	
18	30010	B1	L				*B2*	*H*
19		B0					*B3*	
20	30011	B1	-	DAC value relative to calibration point 2.			*B0*	-
21		B0					*B1*	
22	30012	B3	H	Weight of the calibration point 3.			*B0*	*L*
23		B2					*B1*	
24	30013	B1	L				*B2*	*H*
25		B0					*B3*	
26	30014	B1	-	DAC value relative to calibration point 3.			*B0*	-
27		B0					*B1*	
28	30015	-	-	Not used.			-	-
29								
30	30016	B1	-	Current value of the analogue output (DAC).			*B0*	-
31		B0					*B1*	

To set the data, write the same positions in the output area and use command **56** (0x38) **"SAVE PAGE"** with PARAMETER 1 equals to 5112.
To make the changes permanent, send the command **28** (0x1C) **"SAVE SETUP"**.

Setpoint Values (1/2) "Page 6100" (0x17D4)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	H	ON value Setpoint 1.			*B0*	*L*
17		B2					*B1*	
18	30010	B1	L				*B2*	*H*
19		B0					*B3*	
20	30011	B3	H	OFF value Setpoint 1.			*B0*	*L*
21		B2					*B1*	
22	30012	B1	L				*B2*	*H*
23		B0					*B3*	
24	30013	B3	H	ON value Setpoint 2.			*B0*	*L*
25		B2					*B1*	
26	30014	B1	L				*B2*	*H*
27		B0					*B3*	
28	30015	B3	H	OFF value Setpoint 2.			*B0*	*L*
29		B2					*B1*	
30	30016	B1	L				*B2*	*H*
31		B0					*B3*	

Integers or float data depending on the indicator configuration.

Setpoint Values (2/2) "Page 6101" (0x17D5)

Byte	*Modbus TCP Register*	Big Endian		Dato			Little Endian	
0	30001	B3	H	Gross weight.			*B0*	*L*
1		B2					*B1*	
2	30002	B1	L				*B2*	*H*
3		B0					*B3*	
4	30003	B3	H	Net weight.			*B0*	*L*
5		B2					*B1*	
6	30004	B1	L				*B2*	*H*
7		B0					*B3*	
8	30005	B1	-	Input Status Register (see Table 1 page 33).			*B1*	-
9		B0					*B0*	
10	30006	B1	-	Command Status Register (see Table 3 page 34).			*B0*	-
11		B0					*B1*	
12	30007	B1	-	Output Status Register (see Table 2 page 33).			*B0*	-
13		B0					*B1*	
14	30008	B1	-	Selected page - Data format (bit 0 to 13) (bit 14 to 15)	0 = uns. integer	01 = sig. integer	*B0*	-
15		B0			10 = float		*B1*	
16	30009	B3	H	ON value Setpoint 3.			*B0*	*L*
17		B2					*B1*	
18	30010	B1	L				*B2*	*H*
19		B0					*B3*	
20	30011	B3	H	OFF value Setpoint 3.			*B0*	*L*
21		B2					*B1*	
22	30012	B1	L				*B2*	*H*
23		B0					*B3*	
24	30013	B3	H	ON value Setpoint 4.			*B0*	*L*
25		B2					*B1*	
26	30014	B1	L				*B2*	*H*
27		B0					*B3*	
28	30015	B3	H	OFF value Setpoint 4.			*B0*	*L*
29		B2					*B1*	
30	30016	B1	L				*B2*	*H*
31		B0					*B3*	

Integers or float data depending on the indicator configuration.

Table 1 - Input Status Register

(always Big Endian)

Byte		*Modbus TCP Register*	Bit	Description	Bit meaning	
Big Endian					0	1
8	B1	30005	15	Not used.	-	-
			14			
			13			
			12	Endian.	Big Endian	Little Endian
			11	Not used.	-	-
			10			
			9	Input 2.	Disabled	Enabled
			8	Input 1.	Disabled	Enabled
9	B0		7	Gross weight = 0.	No	Sì
			6	Manual tare condition.	No	Sì
			5	Inserted tare condition.	No	Sì
			4	Overload condition.	No	Sì
			3	Underload condition.	No	Sì
			2	Weight stability.	No	Sì
			1	Gross weight polarity.	+	-
			0	Net weight polarity.	+	-

Table 2 - Output Status Register

Byte		*ModbusTCP Register*	Bit	Description	Bit meaning	
Big Endian					0	1
12	B1	30007	15	Communication scale - Module.	Bit that changes every second if the communication between scale and module is active.	
			14	Decimals (B1).	00 = 0	01 = 1
			13	Decimals (B0).	10 = 2	11 = 3
			12	Not used.	-	-
			11			
			10			
			9			
			8	Load cell error.	No	Yes
13	B0		7	Unit of measure (B1)	00 = g	01 = kg
			6	Unit of measure (B0)	10 = t	11 = lb
			5	Not used.	-	-
			4			
			3	Relay 4.	Not energized	Energized
			2	Relay 3.	Not energized	Energized
			1	Relay 2.	Not energized	Energized
			0	Relay 1.	Not energized	Energized

Table 3 - Command Status Register

Byte		*Modbus TCP Register*	Bit	Description	Bit meaning	
Big Endian						
10	B1	**30006**	15	Last command received.		
			14			
			13			
			12			
			11			
			10			
			9			
			8			
11	B0		7 (MSB)	Processed commands counting.	Value in module 16.	
			6			
			5			
			4 (LSB)			
			3	Result of the last command received:	0000 = Correct and performed command. 0001 = Incorrect command. 0010 = Incorrect data in command. 0011 = Command not allowed. 0100 = Non-existent command.	
			2			
			1			
			0			

Table 4 - Alibi Status Register

Byte		*Modbus TCP Register*	Bit	Description	Bit meaning	
Big Endian					0	1
28	B1	**30015**	15	Not used.	-	
			14			
			13			
			12			
			11	Tare type.	Semiautomatic	Manual
			10	Scale number.	1 to 4.	
			9			
			8			
29	B0		7	Rewriting number.	0 to 255 rewritings.	
			6			
			5			
			4			
			3			
			2			
			1			
			0			

Table 5 - **Filter**

Index	Filter	Description
0 (0x00)	F 1	5 Hz filter
1 (0x01)	F 2	10 Hz filter
2 (0x02)	F 3	20 Hz filter
3 (0x03)	F 4	40 Hz filter
4 (0x04)	F 5	80 Hz filter
5 (0x05)	F 6	160 Hz filter
6 (0x06)	F 7	325 Hz filter
7 (0x07)	F 8	650 Hz filter (*)
8 (0x08)	F 9	1300 Hz filter (*)
9 (0x09)	F 10	2600 Hz filter (*)
10 (0x0A)	F 11	4800 Hz filter (*)
11 (0x0B)	CUSTOM	Custom filter (for manufacturer's use only).

(*) *Available only on SCT1SX models.*

Table 6 - **Zero Tracking**

Value	Meaning
0 (0x00)	Disabled.
1 (0x01)	1 / 4 Division.
2 (0x02)	1 / 2 Division.
4 (0x04)	1 Division.
8 (0x08)	2 Divisions.
16 (0x10)	4 Divisions.
24 (0x18)	6 Divisions.
32 (0x20)	8 Divisions.
40 (0x28)	10 Divisions.

Table 7 - **Input Functions**

Value	Meaning
0 (0x00)	No function.
1 (0x01)	Pression of Zero key.
2 (0x02)	Pression of Tare key.
3 (0x03)	Pression of Mode key.
4 (0x04)	Pression of Print key.
5 (0x05)	Pression of C key.
6 (0x06)	Off.
7 (0x07)	Disabled keyboard.

Table 8 - **Output Functions**

Value	Meaning
0 (0x00)	No function.
1 (0x01)	Setpoint on gross weight.
2 (0x02)	Setpoint on net weight.
4 (0x04)	Gross weight = 0.
5 (0x05)	Net weight = 0.
6 (0x06)	Unstable weight.
23 (0x17)	Print key pressed.
25 (0x19)	Mode key pressed.
26 (0x1A)	C key pressed.
27 (0x1B)	Zero key pressed.
28 (0x1C)	Tare key pressed.
29 (0x1D)	Error.
30 (0x1E)	Setpoint on gross weight if a tare is active.

- Commands are sent in the first 14 Bytes of the Output Area.
- Some commands need specific parameters.
- In the first 2 Bytes the command is specified, in Bytes 2 to 5 PARAMETER 1 is specified, in Bytes 6 to 9 PARAMETER 2 is specified, in Bytes 10 to 13 PARAMETER 3 is specified.
- Depending on the Fieldbus, the page size can reach 128 Bytes.
- Each SCT-1SX page size is 32 Bytes (therefore, even if the page size is 128 Bytes, only the first 32 avalaible Bytes are used).
- Only the first 10 Bytes of each page are used to send commands.
- The last 16 Bytes are used to write data.
- Data are expressed by default in Big Endian format. To modify the format follow the procedure at page 6.

How to Send a Command

1. If required by the command, insert the required parameters in Bytes 2 to 13.
2. Write the command in Byte 1. The execution of the command occurs when the content in Byte 1 changes.

WARNING: Byte 0 value must equal 0 (0x00).

Byte	*Modbus TCP Register*	Big Endian		Data	Little Endian	
0	**40001**	B1	-	0 (0x00) always zero.	*B0*	-
1		B0		Command (see command list at page 38).	*B1*	
2	**40002**	B3	H	Parameter 1.	*B0*	*L*
3		B2			*B1*	
4	**40003**	B1	L		*B2*	*H*
5		B0			*B3*	
6	**40004**	B3	H	Parameter 2.	*B0*	*L*
7		B2			*B1*	
8	**40005**	B1	L		*B2*	*H*
9		B0			*B3*	
10	**40006**	B3	H	Parameter 3.	*B0*	*L*
11		B2			*B1*	
12	**40007**	B1	L		*B2*	*H*
13		B0			*B3*	
14	**40008**	B1	-	Command counter.	*B0*	-
15		B0			*B1*	

Available Commands

COMMAND	DESCRIPTION	PARAMETER 1	PARAMETER 2
0 (0x00)	No commands.	*Use this command before repeating the same command twice.*	
1 (0x01)	Zero.	-	-
2 (0x02)	Tare.	-	-
3 (0x03)	Manual tare.	Tare value.	-
10 (0x0A)	Writing setpoint 1.	"Threshold" weight for output activation.	"Threshold" weight for output deactivation.
11 (0x0B)	Writing setpoint 2.	"Threshold" weight for output activation.	"Threshold" weight for output deactivation.
12 (0x0C)	Writing setpoint 3.	"Threshold" weight for output activation.	"Threshold" weight for output deactivation.
13 (0x0D)	Writing setpoint 4.	"Threshold" weight for output activation.	"Threshold" weight for output deactivation.
25 (0x19)	Set relay status. (relays must have function: 0 "no function").	Bitmask of relays status to be enabled *(bit 0 = relay 1, bit 1 = relay 2 bit 2 = relay 3, bit 3 = relay 4).*	Always 0 (0x00).
26 (0x1A)	Setup reading.	Setup page to read 0 to 63 (0x00 to 0x3F).	-
27 (0x1B)	Setup writing.	Setup page to write 0 to 63 (0x00 to 0x3F).	-
28 (0x1C)	Save setup.	-	-
29 (0x1D)	Change page.	Destination page.	-
30 (0x1E)	Alibi memory reading.	Rewriting number.	Weight alibi ID.
31 (0x1F)	Weight storage in alibi memory.	-	-
34 (0x22)	Reboot device.	-	-
35 (0x23)	Data reading.	-	-
36 (0x24)	Data writing and storage.	Parameter 1 = 0 (0x00) to store data. Parameter 1 = 500X (0x138x) for page writing.	-
37 (0x25)	Calibration point acquisition.	0 (0x00) = Zero point 1 (0x01) = First point 2 (0x02) = Second point 3 (0x03) = Third point.	-
38 (0x26)	Cancel ongoing calibration.	-	-
39 (0x27)	Zero calibration.	-	-
40 (0x28)	Enable / disable keypad.	1 (0x01): Enable keypad. 0 (0x00): Disable keypad.	-
55 (0x37)	Disable a peripheral device.	0 (0x00) = disables digital outputs (parameter 2). 1 (0x01) = disables analog output (parameter 2).	Bit 0 = 1 disables relay 1 / analog output. Bit 1 = 1 disables relay 2.
56 (0x38)	Save page.	Page to save.	-
59 (0x3B)	Data format setting.	0 (0x00) = Big Endian. 1 (0x01) = Little Endian.	-
63 (0x3F)	Data type setting.	0 (0x00) = Unsigned integer 1 (0x01) = Signed integer 2 (0x02) = Float	-
66 (0x42)	Theoretical calibration.	See par. "Theoretical calibration"	

PROCEDURE

1. Send the command **35** (0x23) **"DATA READING".**

2. Write the Bytes from 16 to 31 of the exit area of the page containing the desired parameter(s).
NOTA: All 16 Bytes are always written, so you must enter the values for all parameters.

3. Save the page that contains the modified parameter.
Use the commands specified below the table that contains the parameter(s).

4. Store the configuration.
Use the commands specified below the table that contains the parameter(s).

Theoretical Calibration

1. Write parameters registers:

Byte 2 to 5 (PARAMETER 1): total load cells capacity. Scale decimals.
Byte 6 to 9 (PARAMETER 2): load cells sensitivity (*). 5 decimals.
Byte 10 to 13 (PARAMETER 3): mechanical tare value (if not known, insert the value 0). Scale decimals + 1.

2. Send the command **66** (0x42) "**THEORETICAL CALIBRATION**".

3. Save the parameters by sending the command **28** (0x1C) "**SAVE SETUP**".

* If there are several load cells connected via a junction/equalisation box, enter the average value:

$$\frac{(mV/V\ cell\ 1) + (mV/V\ cell\ 2) + (mV/V\ cell\ 3) + \ldots + (mV/V\ cell\ n)}{n}$$

Example:
Theoretical calibration of a platform with 4 load cells.
Total capacity = 2000kg Mechanical tare = 55 kg
Load cells sensitivity: cell 1 = 2,01032 cell 2 = 1,99420 cell 3 = 1,98846 cell 4 = 2,00375

Byte	*Modbus TCP Register*	Big Endian		Data	Little Endian	
0	**40001**	B1	-	0 (0x00) always zero.	*B0*	-
1		B0		66 (0x42)	*B1*	
2	**40002**	B3	H	2000 (0x07D0)	*B0*	*L*
3		B2			*B1*	
4	**40003**	B1	L		*B2*	*H*
5		B0			*B3*	
6	**40004**	B3	H	199918 (0x00030CEE)	*B0*	*L*
7		B2			*B1*	
8	**40005**	B1	L		*B2*	*H*
9		B0			*B3*	
10	**40006**	B3	H	550 (0x0226)	*B0*	*L*
11		B2			*B1*	
12	**40007**	B1	L		*B2*	*H*
13		B0			*B3*	

Calibration

1. Send command **35** (0x23) "**DATA READING**".

2. Modify required parameters.

Parameter			Page	Byte	Modbus TCP Register	Big Endian		Little Endian	
Description	Possible values								
Unit of measure.	0 = kg 1 = g	2 = t 3 = lb	**5006** (0x138E)	16 17	40009	B1 B0	- -	B0 B1	- -
Resolution.	1, 2, 5.			18 19	40010	B1 B0	- -	B0 B1	- -
Decimal places.	0, 1, 2, 3, 4, 5.			20 21	40011	B1 B0	- -	B0 B1	- -
Capacity.	From 1 to 999999.			22 23	40012	B3 B2	H H	B0 B1	L L
				24 25	40013	B1 B0	L L	B2 B3	H H
Calibration weight.	From 1 to 999999.			26 27	40014	B3 B2	H H	B0 B1	L L
				28 29	40015	B1 B0	L L	B2 B3	H H

3. Save the parameters:
• Write in Bytes 2 to 5 (PARAMETER 1) the value **5006** (0x138E) and send the command **36** (0x24) **"DATA WRITING AND STORAGE"**.

4. Acquire calibration points:
• Unload the scale. Write in Bytes 2 to 5 (PARAMETER 1) the value 0 (0x00) and send the command **37** (0x25) **"CALIBRATION POINT ACQUISITION"**.
• Check that in Byte 30 and 31 the value is equal to 2 (Acquisition OK).
• Load the scale with the sample weight. Write in Bytes 2 to 5 (PARAMETER 1) the value 1 (0x01) and increase the command counter value (Byte 15).
• Check that in Byte 30 and 31 the value is equal to 4 (Acquisition OK).

5. Send the command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 = 0 (0x00) to save the calibration.
• Check that in Byte 30 and 31 the value is equal to 4 (Calibration OK).

Calibration Linearization

1. Send the command **35** (0X23) "**DATA READING**".

2. Modify required parameters:

Parameter		Page	Byte	Modbus TCP Register	Big Endian		Little Endian	
Description	Possible values $_{10}$							
Calibration point number.	1, 2, 3.	**5001** (0x1389)	16	40009	B1	-	B0	-
			17		B0		B1	
Calibration weight 1.	From 1 to 999999.		18	40010	B3	H	B0	L
			19		B2		B1	
			20	40011	B1	L	B2	H
			21		B0		B3	
Calibration weight 2.	From weight calibration value 1 to 999999.		22	40012	B3	H	B0	L
			23		B2		B1	
			24	40013	B1	L	B2	H
			25		B0		B3	
Calibration weight 3.	From calibration weight 2 to 999999.		26	40014	B3	H	B0	L
			27		B2		B1	
			28	40015	B1	L	B2	H
			29		B0		B3	

3. Save the parameters:
• Write in Bytes 2 to 5 (PARAMETER 1) the value **5001** (0x1389) and send the command **36** (0x24) **"DATA WRITING AND STORAGE"**.

4. Acquire calibration points:
• Unload the scale. Write in Bytes 2 to 5 (PARAMETER 1) the value 0 (0x00) and send the command **37** (0x25) **"CALIBRATION POINT ACQUISITION"**.
• Check that in Byte 30 and 31 the value is equal to 2 (Acquisition OK).
• Load the scale with the first sample weight. Write in Bytes 2 to 5 (PARAMETER 1) the value 1 (0x01) and increase the command counter value (Byte 15).
• Check that in Byte 30 and 31 the value is equal to 4 (Acquisition OK).
• Load the scale with the second sample weight. Write in Bytes 2 to 5 (PARAMETER 1) the value 1 (0x01) and increase the command counter value (Byte 15).
• Check that in Byte 30 and 31 the value is equal to 4 (Acquisition OK).
• Load the scale with the third sample weight. Write in Bytes 2 to 5 (PARAMETER 1) the value 1 (0x01) and increase the command counter value (Byte 15).
• Check that in Byte 30 and 31 the value is equal to 4 (Calibration OK).

5. Send the command **36** (0x24) **"DATA WRITING AND STORAGE"** with PARAMETER 1 = 0 (0x00) to save the calibration.

Filter / Metric Parameters 1

1. Send the command **35** (0x23) "**DATA READING**".

2. Modify required parameters.

Parameter		Page	Byte	Modbus TCP Register	Big Endian		Little Endian	
Description	Possible values [10]							
Filter index.	From 0 to 12 (see table 5 page 34).	**5004** (0x138C)	16	40009	B1	-	B0	-
			17		B0		B1	
Custom filter.	For manufacturer's use only.		18	40010	B1	-	B0	-
			19		B0		B1	
			20	40011	B1	-	B0	-
			21		B0		B1	
			22	40012	B1	-	B0	-
			23		B0		B1	
			24	40013	B1	-	B0	-
			25		B0		B1	
Auto-zeroing at power-up.	0 = Disabled. 1 = Enabled.		26	40014	B1	-	B0	-
			27		B0		B1	
Auto-zeroing percentage at power-up.	From 0 to 50. From 0 to 10 *(approved version).*		28	40015	B1	-	B0	-
			29		B0		B1	
Zero percentage by key / command.	Da 0 a 10. Da 0 a 2 *(approved version).*		30	40016	B1	-	B0	-
			31		B0		B1	

3. To save the parameters:

- Write in Bytes 2 to 5 (PARAMETER 1) the value **5004** (0x138C) and send the command **36** (0x24) "**DATA WRITING AND STORAGE**".
- Write in Bytes 2 to 5 (PARAMETER 1) the value **0** (0x00) and increase the command counter value (Byte 15).

Metric Parameters 2

1. Send the command **35** (0x23) "**DATA READING**".

2. Modify the desired parameters.

Parameter		Page	Byte	Modbus TCP Register	Big Endian		Little Endian	
Description	Possible values $_{10}$							
Zero tracking divisions.	See chart below.	**5005** (0x138D)	16	40009	B1	-	B0	-
			17		B0		B1	
Divisions for stability.	0 to 99. 0 to 2 *(approved version).*		18	40010	B1	-	B0	-
			19		B0		B1	
"g" calibration zone.	See note below.		20	40011	B1	-	B0	-
			21		B0		B1	
"g" area of use.	See note below.		22	40012	B1	-	B0	-
			23		B0		B1	

VALUE	MEANING
0 (0x00)	Disabled.
1 (0x01)	1 / 4 Division.
2 (0x02)	1 / 2 Division.
4 (0x04)	1 Division.
8 (0x08)	2 Divisions.
16 (0x10)	4 Divisions.
24 (0x18)	6 Divisions.
32 (0x20)	8 Divisions.
40 (0x28)	10 Divisions.

i

The value to insert is calculated by subtracting 9.7 from the gravity value and considering only decimal places.

Ex. for the gravity value 9.80390, insert **10390** / (0x2896).
9.80390 - 9.7 = 0.**10390**.

3. To save the parameters:
- Write in Bytes 2 to 5 (PARAMETER 1) the value **5005** (0x138D) and send the command **36** (0x24) "**DATA WRITING AND STORAGE**".
- Write Bytes 2 to 5 (PARAMETER 1) the value **0** (0x00) and increase the command counter value (Byte 15).

Digital Inputs

1. Write in Bytes 2 to 5 (PARAMETER 1) the value **5100** (0x13EC) and send the command **29** (0x1D) "**CHANGE PAGE**".

2. Modify the desired parameters.

Parameter		Page	*Byte*	*Modbus TCP Register*	*Big Endian*		*Little Endian*	
Description	Possible values							
Input 1 function.	See chart below.	**5100** (0x13EC)	*16*	*40009*	*B1*	-	*B0*	-
			17		*B0*		*B1*	
Input 2 function.	See chart below.		*18*	*40010*	*B1*	-	*B0*	-
			19		*B0*		*B1*	

VALUE	MEANING
0 (0x00)	No function.
1 (0x01)	Pressing Zero key.
2 (0x02)	Pressing Tare key.
3 (0x03)	Pressing Mode key.
4 (0x04)	Pressing Print key.
5 (0x05)	Pressing C key.
6 (0x06)	Off.
7 (0x07)	Keyboard disabling.

3. To save parameters:

- Write in Bytes 2 to 5 (PARAMETER 1) the value **5100** (0x13EC) and send the command **56** (0x38) "**SAVE PAGE**".
- Send command **28** (0x1C) "**SAVE SETUP**".

Digital Output 1

1. Write in Bytes 2 to 5 (PARAMETER 1) the value **5101** (0x13ED) and send the command **29** (0x1D) "**CHANGE PAGE**".

2. Modify the desired parameters.

Parameter		Page	Byte	Modbus TCP Register	Big Endian		Little Endian	
Description	Possible values							
Output function.	See chart below.	**5101** (0x13ED)	16	40009	B1	-	B0	-
			17		B0		B1	
Contact type (NO/NC).	0 (0x00) = Normally open. 1 (0x01) = Normally closed.		18	40010	B1	-	B0	-
			19		B0		B1	
Switching condition.	0 (0x00) = Direct. 1 (0x01) = At stability.		20	40011	B1	-	B0	-
			21		B0		B1	
Hysteresis.	0 (0x00) = Disabled. 1 (0x01) = Enabled.		22	40012	B1	-	B0	-
			23		B0		B1	
Sign.	0 (0x00) = Positive. 1 (0x01) = Negative.		24	40013	B1	-	B0	-
			25		B0		B1	
Delayed switching.	0 to 1000 (0x00 to 0x03E8) *(in tenths of seconds).*		26	40014	B1	-	B0	-
			27		B0		B1	
Activation time.	0 to 1000 (0x00 to 0x03E8) *(in tenths of seconds).*		28	40015	B1	-	B0	-
			29		B0		B1	

VALUE	MEANING
0 (0x00)	No function.
1 (0x01)	Setpoint on gross weight.
2 (0x02)	Setpoint on net weight.
4 (0x04)	Gross weight at zero.
5 (0x05)	Net weight at zero.
6 (0x06)	Moving weight.
23 (0x17)	Print key pressed.
25 (0x19)	Mode key pressed.
26 (0x1A)	C key pressed.
27 (0x1B)	Zero key pressed.
28 (0x1C)	Tare key pressed.
29 (0x1D)	Error.
30 (0x1E)	Setpoint in net weight if a tare was set.

3. To save the parameters:

- Write in Bytes 2 to 5 (PARAMETER 1) the value **5101** (0x13ED) and send the command **56** (0x38) "**SAVE PAGE**".
- Send the command **28** (0x1C) "**SAVE SETUP**".

Digital Output 2

1. Write in Bytes 2 to 5 (PARAMETER 1) the value **5102** (0x13EE) and send the command **29** (0x1D) "**CHANGE PAGE**".

2. Modify required parameters.

Parameter		Page	*Byte*	*Modbus TCP Register*	*Big Endian*		*Little Endian*	
Description	Possible values							
Output function.	See chart below.	**5102** (0x13EE)	*16*	*40009*	*B1*	-	*B0*	-
			17		*B0*		*B1*	
Contact type (NO/NC).	0 (0x00) = Normally open. 1 (0x01) = Normally closed.		*18*	*40010*	*B1*	-	*B0*	-
			19		*B0*		*B1*	
Switching condition.	0 (0x00) = Direct. 1 (0x01) = At stability.		*20*	*40011*	*B1*	-	*B0*	-
			21		*B0*		*B1*	
Hysteresis.	0 (0x00) = Disabled. 1 (0x01) = Enabled.		*22*	*40012*	*B1*	-	*B0*	-
			23		*B0*		*B1*	
Sign.	0 (0x00) = Positive. 1 (0x01) = Negative.		*24*	*40013*	*B1*	-	*B0*	-
			25		*B0*		*B1*	
Delayed switching.	0 to 1000 (0x00 to 0x03E8) *(in tenths of seconds).*		*26*	*40014*	*B1*	-	*B0*	-
			27		*B0*		*B1*	
Activation time.	0 to 1000 (0x00 to 0x03E8) *(in tenths of seconds).*		*28*	*40015*	*B1*	-	*B0*	-
			29		*B0*		*B1*	

VALUE	MEANING
0 (0x00)	No function.
1 (0x01)	Setpoint on gross weight.
2 (0x02)	Setpoint on net weight.
4 (0x04)	Gross weight at zero.
5 (0x05)	Net weight at zero.
6 (0x06)	Moving weight.
23 (0x17)	Print key pressed.
25 (0x19)	Mode key pressed.
26 (0x1A)	C key pressed.
27 (0x1B)	Zero key pressed.
28 (0x1C)	Tare key pressed.
29 (0x1D)	Error.
30 (0x1E)	Setpoint in net weight if a tare was set.

3. To save the parameters:

- Write in Bytes 2 to 5 (PARAMETER 1) the value **5102** (0x13EE) and send the command **56** (0x38) "**SAVE PAGE**".
- Send the command **28** (0x1C) "**SAVE SETUP**".

Profinet Name

1. Write in Bytes 16 to 31 of the Output Area the new Profinet name of the transmitter.
2. Write in Bytes 2 to 5 (PARAMETER 1) the value **5031** (0x13A7) and send the command **56** (0x38) **"SAVE PAGE"**.

Parameter		Page	Byte
Description	Possible values		
Command SAVE PAGE	00		*0*
	38		*1*
Page 5031 (0x13A7)	0		*2*
	0		*3*
	13		*4*
	A7		*5*
			...
Profinet name to be assigned to the transmitter, insert up to 16 ASCII characters in hex format. Allowed characters: • a to z (lowercase) • 0 to 9 • "-" If the length of the Profinet name is less than 16 characters, fill the remaining Bytes with the value 0. In the example: **ricelake-0123456**	r (0x72)	**5031** (0x13A7)	*16*
	i (0x69)		*17*
	c (0x63)		*18*
	e (0x65)		*19*
	l (0x6C)		*20*
	a (0x61)		*21*
	k (0x6B)		*22*
	e (0x65)		*23*
	- (0x2D)		*24*
	0 (0x30)		*25*
	1 (0x31)		*26*
	2 (0x32)		*27*
	3 (0x33)		*28*
	4 (0x34)		*29*
	5 (0x35)		*30*
	6 (0x36)		*31*

3. Save the parameters:
• Send the command **28** (0x1C) **"SAVE SETUP"**.
• Reboot the transmitter (command **34** (0x22)).

Scale Zeroing via Fieldbus

- Send the command **1** (0x01) **"ZERO"**.

Note: This command does not affect calibration. Once the device is turned off, the performed zeroing gets lost.

Mechanical Tare Zeroing via Fieldbus

- Send command **35** (0x23) **"DATA READING"**.
- Send command **39** (0x27) **"ZERO CALIBRATION"**.
- Verify that, in page **5001** (0x1389) in the Input Area, the value in Bytes 30 - 31 turns from 6 (0x06) "Ongoing zero calibration" into 4 (0x04) "Calibration OK".
- Send command **36** (0x24) **"DATA WRITING AND STORAGE"** inserting in PARAMETER 1 the value 0 (0x00).

Note: Unlike ZERO command, the ZERO CALIBRATION command affects the scale calibration and finalises the modification of the zero point.

Backup

It is possible to **copy the device setup** by reading in sequence all setup pages from 0 to 255 (0x00 to 0xFF).

1. Send the command **26** (0x1A) **"SETUP READING"** inserting in PARAMETER 1 the value 0 (0x00) "first setup page".

2. Copy data in Bytes 16 to 31 of page 0 (0x00) "Input Area".

3. Send the command **26** (0x1A) **"SETUP READING"** inserting in PARAMETER 1 the value 1 (0x01) "second setup page".

4. Copy data in Bytes 16 to 31 of page 1 (0x01) "Input Area".

5. Repeat this procedure for all the other pages.

Restore

To restore the backup, write in sequence all setup pages:

1. Copy in Bytes 16 to 31 of the Output Area previously saved data in page 0 (0x00).

2. Send the command **27** (0x1B) **"SETUP WRITING"** inserting in PARAMETER 1 the value 0 (0x00).

3. Copy in Bytes 16 to 31 of the Output Area previously saved data in page 1 (0x01).

4. Send the command **27** (0x1B) **"SETUP WRITING"** inserting in PARAMETER 1 the value 1 (0x01).

5. Repeat this procedure for all the other pages.

OPERATING MESSAGES

Message	Description
F.b.Conn	Fieldbus in operation.
F.b.oH	Communication with active network.
F.buS. in	Module initialisation.

ERROR MESSAGES

Message	Description
F.buS.Er	Fielbus not in operation.
F.b.Err + code	Error status, see error codes.

Code	Decription
1000	Module fatal error. Restart the device.
1001	Selected protocol differs from the one managed by the module. Check step FLd.buS.
1005	Internal communication error between fieldbus module and CPU board. Reboot the device. If the error persists, contact service.
000 140	General network error. Check network connections.
000 141	Closed connection.
000 142	Connection in timeout.
000 143	Isolated network.
000 144	Duplicated node.
000 145	Network cable unplugged.

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