PROFINET Input Data Area

Area byte	Data	Description
0	0x00	I-7580 is currently not transmitting I/O data
	0x01	I-7580 is transmitting data to the COM port
	0x02	I-7580 is receiving data from the COM port
1	Error State	Bit 0: Output FIFO overflow
		Bit 1 : Input FIFO overflow
		Bit 2 : Output Data loss
		Bit 3 : Input Data loss
		Bit 4 : Input Data overflow
2	Length	Received data length (High byte)
3		Received data length (Low byte)
4	Input Count	Received data count (High byte)
5		Received data count (Low byte)
6	Output Count	Transmitted data count (High byte)
7		Transmitted data count (Low byte)
8	Byte	Calibration running
9	Byte	Calibration completed
10	Byte	Calibration error
11	Byte	Zero Positioning running
12	Byte	Zero Positioning completed
13	Byte	Zero positioning error
14	Byte	Measuring Running
15	Byte	Measuring error
16	Byte	Measuring completed
17	Byte	Measuring aborted
18	Byte	System in fault condition
19	Byte	Save measurements running
20	Byte	Save measurements completed
21	Byte	Save measurements error
22	Byte	Data Transfer read
23	Real	Diameter Min
27	Real	Diameter Max
31	Real	Diameter Avg
35	Real	Chamfer width Min
39	Real	Chamfer width Max
43	Real	Chamfer width Avg
47	Real	Circularity Min
51	Real	Circularity Max
55	Real	Circularity Avg
59	Real	Bevel angle of chamfers Min
63	Real	Bevel angle of chamfers Max
67	Real	Bevel angle of chamfers Avg
71	Real	Band Height Min
75	Real	Band Height Max
79	Real	Band Height Avg

PROFINET Output Data Area

Area byte	Data	Description
0	0～255	Data output command
1	0x01	Control bit – clear all diagnostic messages
	0x02	Control bit – clear Received data count
	0x04	Control bit – clear Transmitted data count
2	Length	Output data length (High byte)
3		Output data length (Low byte)
4	Length	Fixed data length (High byte)
5		Fixed data length (Low byte)
6	0～255	Interval time between the two batches of the data
7	0～255	Timeout value
8	Byte	Calibration start
9	Byte	Zero positioning start
10	Byte	Measuring start
11	Byte	Abort measure
12	Byte	Fault reset
13	Byte	Save Measurements
14	Byte	New Data Transfer
15	Real	Scan length
19	Real	Calibration diameter

Firstly, when you want to send a new data packet from PLC to System, you should increase progressively the first byte (**Data output command** – byte №0) (ex: 0->1, 1->2, 2->3, …255->0). When the value of the **Data output command** differs from the previous data packet, our System recognizes a new data packet and executes the commands. If the PLC sends in each polling cycle the same **Data output command**, the device will not recognize a new data packet and will not execute the commands. (Even if the remaining bytes in the output packet from PLC will be different).

Secondly, the output data length (byte №2, byte №3) has to be set to 15 (size of payload data between PLC and System) for every single output command, otherwise no data will be received into the System. These 2 bytes mean that the System will receive only the specified number of bytes in the **Output Data Length** field (byte №2, byte №3).

*You can read more information in paragraph 12 of the manual (page 21).