

Parameter and Process Data

PAD20#-B0#.#####.###.####



IO-Link

PAD20#-B0#.#####.###.####

Device ID

Product	Hex	Decimal
PAD20#-B0#.#####.###.####	0x03F5	1013

IO-Link Version: V 1.1
 Data Storage: Yes
 Block Parameter: Yes
 Min. Cycle Time: 6.4 ms
 SIO-Mode: Yes
 COM-Mode: 38400 bit/s (COM 2)

Process Data (Length: 56 Bit)

Subindex	Bit offset	Name	Length	Type	Range
1	51	Short circuit wire 2	1 bit	Boolean	0 = false/off 1 = true/on
2	50	Quality bit	1 bit	Boolean	0 = false/off 1 = true/on
3	49	Switch 1 output	1 bit	Boolean	0 = good output quality 1 = bad output quality
4	48	Switch 2 output	1 bit	Boolean	0 = no short circuit 1 = short circuit
5	32	Measurement values	16 bit	Uint	0-1000
6	16	Accumulated data Switch 1	16 bit	int	-10000 - 10000
7	0	Accumulated data Switch 2	16 bit	int	-10000 - 10000

Octet 0

Bit Offset	55	54	53	52	51	50	49	48
Subindex		-	-	-	Short circuit wire 2	Quality bit	Switch output 1	Switch output 2

Octet 1

Bit Offset	47	46	45	44	43	42	41	40
Subindex	Measurement data							

Octet 2

Bit Offset	39	38	37	36	35	34	33	32
Subindex	Measurement data							

Octet 3

Bit Offset	31	30	29	28	27	26	25	24
Subindex	Accumulated data Switch 1							

Octet 4

Bit Offset	223	22	21	20	19	18	17	16
Subindex	Accumulated data Switch 1							

Octet 5

Bit Offset	15	14	13	12	11	10	9	8
Subindex	Accumulated data Switch 2							

Octet 6

Bit Offset	7	6	5	4	3	2	1	0
Subindex	Accumulated data Switch 2							

Index	Subindex	Access	SPDU name	Number of Bytes	Format	Range of values	Definition
System commands							
2	0	W	System Command	1	U08		Command Code Definition Public: 0x00 – 0x9F Vendor specific: 0xA0 – 0xFF - <u>64 (0x40)</u> : QTeach, press 1 = start Teach, press 2 = Measure and store. - <u>130 (0x82)</u> : Factory Reset. - <u>160 (0xA0)</u> : Teach Air. - <u>161 (0xA1)</u> : Teach Media channel 1 - <u>162 (0xA2)</u> : Teach Media channel 2
General information of sensors							
16	0	R	Vendor Name	18	String	ASCII	Baumer A/S
17	0	R	Vendor Text	14	String	ASCII	www.baumer.com
18	0	R	Product Name	22	String	ASCII	<Product Key Internal> (<Product Key External>) PAD20#-###.#####.###.####
19	0	R	Product Id	8	String	ASCII	Eg: PAD20
20	0	R	Device Text	64	String Max 64 Chars	ASCII	Sensor specific.
21	0	R	Serial number	19	String	ASCII	Baumer Serial Number Eg: L47327X05078212
22	0	R	Hardware revision	5	String	ASCII	Eg. 01.00
23	0	R	Firmware revision	8	String	ASCII	Eg. 01.00.00
24	0	R/W	Application Specific Tag	32	String	ASCII	The application specific tag can be used by the end user to store data that is specific to the end users application. The value does not influence the sensor operation. Length: 32 bytes.
36	1	R	Status / Diagnosis	1	UInt8	0-0x60	0x00 = OK. 0x01 = Warning mask. 0x02 = Alarm mask. 0x10 = Alarm Signal quality. 0x20 = Alarm short circuit out 1. 0x30 = Alarm short circuit out 2. 0x40 = Alarm EEPROM write error. 0x50 = Alarm ASIC write error. 0x60 = System alarm.
Sensor functions							
61	1	R/W	Switch 1 output polarity	1	UInt8	0-1	0 = Normally open / Active high. 1 = Normally closed / Active low.
63	1	R/W	Switch 2 output polarity	1	UInt8	0-1	0 = Normally open / Active high. 1 = Normally closed / Active low.
78	1	R/W	Switch 1 mode	1	UInt8	0-3	0 = PNP 1 = NPN 2 = Push Pull 3 = OFF
78	11	R/W	Switch 2 mode	1	UInt8	0-3	0 = PNP 1 = NPN 2 = Push Pull 3 = OFF
79	3	R	LED color status	1	UInt8	0-7	0 = LED OFF 2 = Red 3 = Green 4 = Blue 5 = Cyan 7 = Yellow

Index	Subindex	Access	SPDU name	Number of Bytes	Format	Range of values	Definition
90	0	R	Graph data	125	Uint8	0x00 - 0xFF	First part of graph data of the frequency sweep performed* [values 0-124]
91	0	R	Graph data	125	Uint8	0x00 - 0xFF	Second part of graph data of the frequency sweep performed* [values 125-249]
92	1	R	3 Point Graph Low edge	2	Uint16	0-1000	The low frequency of the graph
92	2	R	3 Point Graph High edge	2	Uint16	0-1000	The high frequency of the graph
92	3	R	3 Point Graph mid frequency	2	Uint16	0-1000	Measured frequency
92	4	R	3 Point Graph Low amplitude	2	Uint16	0-1000	The amplitude of the graph
120	2	R/W	Switch 1 release delay	2	Uint16	10-10000	Minimum switching time
120	12	R/W	Switch 2 release delay	2	Uint16	10-10000	Minimum switching time
770	3	R/W	Sensitivity Switch 1	2	Uint16	1-100	Sensitivity
770	4	R/W	Threshold Switch 1	2	Uint16	100-10000	Threshold value
770	13	R/W	Sensitivity Switch 2	2	Uint16	1-100	Sensitivity
770	14	R/W	Threshold Switch 2	2	Uint16	100-10000	Threshold value