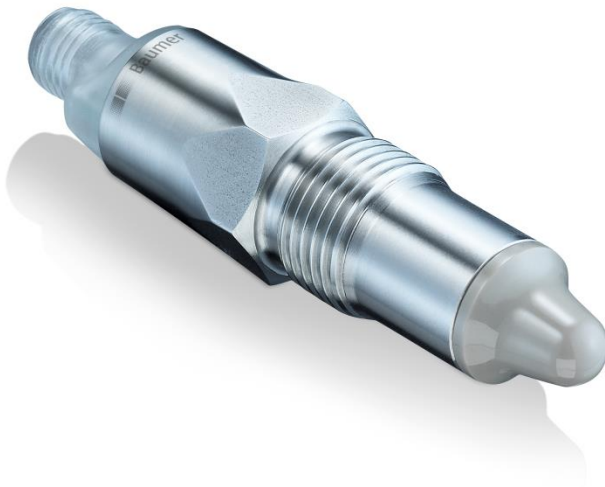


Parameter and Process Data

LBFx-2x.xxx.xxxxxx.x.xxxx.x



IO-Link

LBFx-2x.xxx.xxxxxx.x.xxxx.x

Device ID

Product	Hex	Decimal
LBFx-2x.xxx.xxxxxx.x.xxxx.x	0x03E9	1001

IO-Link Version: V 1.1
 Data Storage: Yes
 Block Parameter: Yes
 Min. Cycle Time: 6.4 ms
 SIO-Mode: Yes
 COM-Mode: Yes

Process Data (Length: 16 Bit)

Subindex	Name	Bit Offset	Length	Range
1	Switch Output 1	0	1 bit	0 = false/off 1 = true/on
2	Switch Output 2	1	1 bit	0 = false/off 1 = true/on
3	Quality Bit	2	1 bit	0 = good output quality 1 = bad output quality

Octet 0

Subindex	-	-	-	-	-	3	2	1
Bit Offset	7	6	5	4	3	2	1	0

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 channel 1. - <u>161 (0xA1)</u> : Teach Media channel 1 - <u>162 (0xA2)</u> : Teach Air Channel 2. - <u>163 (0xA3)</u> : Teach Media channel 2
12	0	R/W	Device locks	2	Uint16		0x0000 = Remote teach disabled 0x0004 = Remote teach enabled
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>) LBFS /XXXXXX? (IO-Link Series)
19	0	R	Product Id	8	String	ASCII	Baumer Article Number Eg: 11128156
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: K193.27.X-0346.3652
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: Max 32.
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							
60	1	R/W	Switch 1 trigger value min	1	Uint8	0-100	Read / Write min trigger value for switch 1.
60	2	R/W	Switch 1 trigger value max	1	Uint8	0-100	Read / Write max trigger value for switch 1.
61	1	R/W	Switch 1output polarity	1	Uint8	0-1	0 = Normally open / Active high. 1 = Normally closed / Active low.
61	2	R/W	Switch 1output mode	1	Uint8	0-3	0 = PNP. 1 = NPN. 2 = Push-Pull. 3 = OFF.
61	3	R/W	Switch 1 trigger frequency hysteresis.	1	Uint8	0-50	Read / Write hysteresis for switch 1 trigger.
62	1	R/W	Switch 2 trigger value min	1	Uint8	0-100	Read / Write min trigger value for switch 2.
62	2	R/W	Switch 2 trigger value max	1	Uint8	0-100	Read / Write max trigger value for switch 2.
63	1	R/W	Switch 2 output polarity	1	Uint8	0-1	0 = Normally open / Active high. 1 = Normally closed / Active low.

63	2	R/W	Switch 2 output mode	1	Uint8	0-3	0 = PNP. 1 = NPN. 2 = Push-Pull. 3 = OFF.
63	3	R/W	Switch 2 trigger frequency hysteresis.	1	Uint8	0-50	Read / Write hysteresis for switch 2 trigger.
79	3	R	LED color status	1	Uint8	0-7	0 = LED OFF. 1 = White. 2 = Red. 3 = Green. 4 = Blue. 5 = Cyan. 6 = Magenta. 7 = Yellow.
90	0	R	Graph data	128	Uint8	0x00 - 0xFF	First part of graph data of the frequency sweep performed* [values 0-127]
91	0	R	Graph data	127	Uint8	0x00 - 0xFF	Second part of graph data of the frequency sweep performed* [values 128-255]
92	1	R	3 Point Graph Low edge	1	Uint8	0-255	The low frequency of the graph*
92	2	R	3 Point Graph High edge	1	Uint8	0-255	The high frequency of the graph*
92	3	R	3 Point Graph mid frequency	1	Uint8	0-255	Measured frequency*
92	4	R	3 Point Graph Low amplitude	1	Uint8	0-255	The amplitude of the graph*
121	2	R/W	Switch 1 damping.	1	Uint8	0-100	Delay timing of output – 0-10 seconds in 1/10 seconds steps
121	12	R/W	Switch 2 damping.	1	Uint8	0-100	Delay timing of output – 0-10 seconds in 1/10 seconds steps

*To get measured values in % divide by 2.55

Index 92 can be used to draw a quick graph. The low and high frequency are where the dip in the graph occurs and measured frequency is the measure point. Before the low frequency and after the high frequency the amplitude is 255 (100%).