

IO-Link Data Map

This document refers to the following IODD file: Banner_Engineering-VSM-2S4NAEL-20190405-IODD1.0.1.xml. The IODD file and support files can be found on www.bannerengineering.com under the download section of the product family page.

Communication Parameters

The following communication parameters are used.

Parameter	Value	Parameter	Value
IO-Link revision	V1.0	SIO mode	Yes
Process Data In length	N/A	Bit Rate	38400 bps
Process Data Out length	N/A	Minimum cycle time	10 ms

IO-Link Process Data Out (Master to Device)

Not applicable.

IO-Link Process Data In (Device to Master)

Not applicable.

Parameters Set Using IO-Link

Index	Subindex	Bit Offset	Name	Length	Value Range	Default	Access Rights
0	1-16		Direct Parameter Page 1 (incl. Vendor ID & Device ID)				ro
1			Direct Parameters Page 2				
	1	126	Reserved	2-bit uinteger			
	1	124	Reserved	2-bit uinteger			
	1	122	Reserved	2-bit uinteger			
	1	120	Reserved	2-bit uinteger			
	2	112	Reserved	8-bit uinteger			
	3	104	Reserved	8-bit uinteger			
	4	98	Reserved	6-bit uinteger			
	4-5	88	Reserved	10-bit uinteger			
	6	84	Sequence choice	4-bit uinteger	0-9. 0 stops emission. 1-9 is the emitting sequence choice. Emitter and receiver must have the same sequence to work together.	1	rw
	6	80	Sensor mode	4-bit uinteger	1 = Fine (500 Hz) 2 = Normal (1 kHz) 3 = Fast (2.5 kHz)	2	rw
	7	74	Reserved	6-bit uinteger			
	7	72	Reserved	2-bit uinteger			
	8-9	56	Reserved	16-bit uinteger			
	10		Event flags		All flags generate a Device Warning in IO-Link standard "Event" byte. Writing to any value will reset flag.		
	bit 6	54	Event flag: LED regulation limit	Boolean	If 1, the limit on LED regulator is reached, no additional compensation possible	0	rw
	bit 5	53	Event flag: Disturbance on receiver	Boolean	Always 0 for emitter	0	rw
	bit 4	52	Event flag: Under-voltage for IO-Link	Boolean	If 1, voltage under IO-Link required level has been detected	0	rw



Index	Subindex	Bit Offset	Name	Length	Value Range	Default	Access Rights
	bit 3	51	Event flag: Under-voltage on sensor	Boolean	If 1, voltage under sensor required level has been detected	0	rw
	bit 2	50	Event flag: Maximum temperature	Boolean	If 1, new maximum temperature has been detected	0	rw
	bit 1	49	Event flag: EMC detected	Boolean	If 1, an EMC event has been detected	0	rw
	bit 0	48	Event flag: Short-circuit detection	Boolean	If 1, too high current causing short circuit protection has been detected	0	rw
	11	40	Maximum temperature	8-bit uinteger	Maximum sensor over the sensor lifetime. Temperature[°C] = (maximum temp × 0.8915) - 54.125		ro
	12	32	Actual temperature	8-bit uinteger	Actual sensor temperature. Temperature[°C] = (actual temp × 0.8915) - 54.125		ro
	13–16	0	Reserved	32-bit uinteger			