

TOF激光传感器

E3AS-HF6000□MT□系列

索引列表



IO-Link设定文件(IODD文件) 请从本公司网站
(www.fa.omron.com.jp) 下载。



IO-Link

オムロン株式会社

©OMRON Corporation 2025 All Rights Reserved.



* 5 8 3 0 4 8 2 - 9 A *

1. 通信规格	2. 设备ID
型号	型号
传输速度	设备 ID
最小循环时间	E3AS-HF6000DMT 65551 (0x01000F)
工序数据长度	E3AS-HF6000SMT 65553 (0x010011)
厂商 ID	
设备配置文件	

3. 工序数据								
bit	7	6	5	4	3	2	1	0
PD0	检测值 PD0: 上位 8bit PD1: 下位 8bit *1*2*3							
PD1								
PD2	刻度或受光量 (可通过索引84工序数据设定进行切换) 刻度:-3固定值 (mm表示距离刻度)/受光量:0~255 (根据受光量变化)							

PD3 bit					分配	详细
7	6	5	4	3	控制输出 1	0: OFF 1: ON
				2	控制输出 2	0: OFF 1: ON
				1	受光量不足警报	0: 稳定状态 1: 不稳定状态
				0	(Reserved)	0
					受光量不足报错	0: 稳定状态 1: 受光量不足
					距离上下限值报错	0: 稳定状态 1: 距离报错
					轻度异常	因负载短路或 EEPROM 的信息等可恢复原因而无法继续执行动作时的诊断输出 0: 正常 1: 异常
					严重异常	传感器内部硬件发生异常, 需更换或重启时的诊断输出 0: 正常 1: 异常

*1 检测值输出为上位 8bit, 下位 8bit, 合计为 16bit 的二进制输出。*2 在检测范围外的状态下, 近距离侧为 0x8008, 远距离侧为 0x7FF8。*3 在受光量不足的状态下为 0x7FFC。

4. 服务数据									
索引	子索引	项目	备份对象 *1	格式	访问	数据长度	初始值	选择范围	备注
0	0	直接参数页面 1	-	Record	R/W	16byte	-	-	未使用
1	0	直接参数页面 2	-	-	-	16byte	-	-	示教应用：根据系统指令执行 2 点示教时，依次执行 2 点示教第 1 点、2 点示教第 2 点、示教应用。在执行示教应用时反映到传感器设置中。 应用重置：将 Index24-26 以外的标签信息的可设置参数恢复到出厂状态。 出厂设置：将包含 Index24-26 的标签信息的可设置参数恢复到出厂状态。 设定初始化：将包含 Index24-26 的标签信息的可设置参数恢复到出厂状态。执行后 IO-Link 通信被切断后，传感器动作停止，变为等待从 IO-Link 主机卸下传感器的状态。*3
2	0	系统指令	-	UInteger	W	1byte	-	0x40: 示教应用 0x41: 示教 SP1 (工件示教) 0x43: 2 点示教第 1 点 0x44: 2 点示教第 2 点 0x4B: 背景基准示教 0x4C: 窗口工件示教 0x4F: 示教取消 0x81: 应用重置 0x82: 恢复出厂设置 0x83: 彻底复位	与 IO-Link 主机之间执行备份、还原时使用。*2
3	0	数据存储器	-	Record	R/W	-	-	-	IO-Link 的功能表示 E3AS-HF 对应的种类。*2
13	1	配置文件特征	-	UInteger	R	2byte	-	0x0010: DMSS SSP 4.4.1	
14	0	PDInput 描述符	-	Octet	R	12byte	-	0x4000: 识别和诊断	
16	0	厂商名称	-	String	R	64byte	-	OMRON Corporation	*2
17	0	厂商文本	-	String	R	64byte	-	OMRON Corporation	
18	0	产品名称	-	String	R	64byte	-	-	代表型号
19	0	产品 ID	-	String	R	64byte	-	-	完整型号
20	0	产品文本	-	String	R	64byte	-	-	传感器种类
21	0	序列号 No.	-	String	R	8byte	-	-	
22	0	硬件版本	-	String	R	4byte	-	-	
23	0	固件版本	-	String	R	4byte	-	-	
24	0	用户可设定区域	○	String	R/W	32byte	任意	任意	
25	0	功能标签	○	String	R/W	32byte	任意	任意	
26	0	位置标签	○	String	R/W	32byte	任意	任意	
36	0	设备状态	-	UInteger	R	1byte	-	0x00: 正常 0x01: 受光量不足报错 0x02: 距离范围外报错 0x04: 内部故障 0x1800/0x1803: 内部故障 0x6320: 服务器数据异常 0x7710: 控制输出 2 负载短路	详情请参见 5. 状况功能。
37	0	设备详细状态	-	Record	R	18byte	-	-	
40	0	工序数据输入	-	Record	R	4byte	-	-	
58	0	示教选择	-	UInteger	R/W	1byte	0x01	0x01: 输出 1 0x02: 输出 2	在索引 63 的输出 2 设定模式为 [外部输入]、[电流] 时不可选。 电源重启可选择输出 1。
59	0	示教状态	-	UInteger	R	1byte	0x00	bit 0 ~ 3: 示教结果 "0" = IDLE "1" = SP1 SUCCESS "2" = SP2 SUCCESS "3" = SP12 SUCCESS "4" = WAIT FOR COMMAND "5" = BUSY "7" = ERROR bit 4: 2 点示教第 1 点标志 "0" = 未执行示教或示教失败 "1" = 示教成功 bit 5: 2 点示教第 2 点标志 "0" = 未执行示教或示教失败 "1" = 示教成功 bit 6: 0 固定 bit 7: 0 固定	
60	1	输出 1 阈值	SP1 ○	Integer	R/W	4byte	1000	-6200 ~ 6200	
	2		SP2 ○	Integer	R/W	4byte	500	-6200 ~ 6200	仅在索引 61 的输出 1 设定模式为 [Window BGS]、[Window FGS] 时可选。
61	1	输出 1 设定	逻辑 ○	UInteger	R/W	1byte	0x00	0x00: N.O. 0x01: N.C.	
	2		模式 ○	UInteger	R/W	1byte	0x01	0x00: 禁用 0x01: Single 0x02: Window BGS 0x83: Window FGS	
	3		迟滞幅度 ○	Integer	R/W	4byte	10	0 ~ 1000	仅在索引 166 的迟滞模式为 [手动] 时可选。
62	1	输出 2 阈值	SP1 ○	Integer	R/W	4byte	1000	-6200 ~ 6200	
	2		SP2 ○	Integer	R/W	4byte	500	-6200 ~ 6200	仅在索引 63 的输出 2 设定模式为 [Window BGS]、[Window FGS] 时可选。
	1	输出 2 设定	逻辑 ○	UInteger	R/W	1byte	0x00	0x00: N.O. 0x01: N.C.	
63	2		模式 ○	UInteger	R/W	1byte	0x80	0x00: 禁用 0x01: Single 0x02: Window BGS 0x80: 输出 1 反转 0x81: 报警 0x82: 外部输入 0x83: Window FGS 0x84: 电流	在索引 58 的示教选择为 [输出 2] 时，[外部输入]、[电流] 不可选。
	3		迟滞幅度 ○	Integer	R/W	4byte	10	0 ~ 1000	仅在索引 166 的迟滞模式为 [手动] 时可选。

索引	子索引	项目	备份对象	格式	访问	数据长度	初始值	选择范围	备注
64	0	厂商指令	-	UInteger	W	1byte	-	0x01: 工件示教 0x03: 2 点示教 第 1 点 0x04: 2 点示教 第 2 点 0x09: 背景基准示教 0x0A: 窗口工件示教 0x0B: 示教取消 0x0C: 电流示教缩放 Low 0x0D: 电流示教缩放 High 0xA1: 投光 OFF 执行 0xA2: 投光 ON 执行 0xA3: 归零重置启用 0xA4: 归零重置取消 0xA5: 指示闪烁启用 0xA6: 指示闪烁禁用	
65	1	输出 1 延时模式	○	UInteger	R/W	1byte	0x00	0x00: 禁用 0x01: On 延迟 0x02: Off 延迟 0x03: 单触发	
	2	输出 1 延时时间	○	UInteger	R/W	2byte	5	1 ~ 9999 (单位: 1ms)	
66	1	输出 2 延时模式	○	UInteger	R/W	1byte	0x00	0x00: 禁用 0x01: On 延迟 0x02: Off 延迟 0x03: 单触发	仅在索引 63 的输出 2 设定模式为 [Single]、[Window BGS]、[Window FGS] 时可选。
	2	输出 2 延时时间	○	UInteger	R/W	2byte	5	1 ~ 9999 (单位: 1ms)	
67	0	屏幕显示	○	UInteger	R/W	1byte	0x00	0x00: 通常 0x01: 简单 0x02: 进度条 0x03: ON/OFF 0x04: 电流	电流: 仅在索引 63 的输出 2 设定模式为 [电流] 时可选。
68	0	屏幕反转	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	
69	0	屏幕亮度	○	UInteger	R/W	1byte	0x00	0x00: 通常 0x01: 灭灯	
70	0	详细设定	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	
71	0	按键锁定	○	UInteger	R/W	1byte	0x00	0x00: 禁用 0x01: 启用 / 按键可解除 0x02: 启用 / 按键不可解除	
72	0	响应时间	○	UInteger	R/W	1byte	0x03	0x00: 2ms 0x01: 10ms 0x02: 50ms 0x03: 200ms	
73	0	外部输入	○	UInteger	R/W	1byte	0x00	0x00: 激光投光 off 0x01: 示教 0x02: 归零重置	仅在索引 63 的输出 2 设定模式为 [外部输入] 时可选。
74	0	归零重置存储器	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	仅在索引 64 上执行 [归零重置启用] 或通过外部输入执行归零重置时可选。
75	0	防止相互干扰功能	○	UInteger	R/W	1byte	0x00	0x00: 自动 0x01: Channel 1 0x02: Channel 2 0x03: Channel 3 0x04: Channel 4	
76	0	保持功能	○	UInteger	R/W	1byte	0x00	0x00: 禁用 0x01: 启用	
80	0	示教选择 (3 秒长按时)	○	UInteger	R/W	1byte	0x00	0x00: 工件示教 0x01: 窗口工件示教	可选择按下示教按键 3 秒或索引 73 的外部输入为 [示教] 时接通 3 秒时的动作。
82	0	灵敏度	○	UInteger	R/W	1byte	0x00	0x00: 最高 0x01: 高 0x02: 中 0x03: 低 0x04: 最低	仅在索引 72 的响应时间为 [10ms]、[50ms]、[200ms] 时可选。
84	0	工序数据设定	○	UInteger	R/W	1byte	0x00	0x00: 刻度 0x01: 受光量	[刻度] 符合 Smart Sensor Profile (SSP 4.1.1) 标准。*2
								0x01: 英语 0x02: 日语 0x03: 西班牙语 0x04: 意大利语 0x05: 德语	
160	0	工作时间	-	UInteger	R	4byte	-	0 ~ 131071 (单位: 1h)	
163	1	电流缩放 Low(4mA)	○	UInteger	R/W	2byte	50	-6200 ~ 6200	
	2	电流缩放 High(20mA)	○	UInteger	R/W	2byte	6000	-6200 ~ 6200	
166	0	迟滞模式	○	UInteger	R/W	1byte	0x00	0x00: 自动 0x01: 手动	
167	0	预热状态	-	UInteger	R	1byte	-	0x00: 通常 0x01: 预热	
16512	1	MDC Descr Lower Value	-	Integer	R	4byte	50	额定最小距离 50 固定值 (50mm)	*2
	2	MDC Descr Upper Value	-	Integer	R	4byte	6000	额定最大距离 6000 固定值 (6000mm)	
	3	MDC Descr Unit Code	-	UInteger	R	2byte	1010	测量单位 1010 固定值 (距离 (m))	
	4	MDC Descr Scale	-	Integer	R	1byte	-3	刻度-3 固定值 (mm→m 转换: 10 ⁻⁴ (-3))	

- *1. 执行备份，更换设备后，请重新执行示教和归零重置。每个设备的实际距离检测值可能不同。
- *2. 详情请参见 IO-Link 规格：IO-Link interface and System Specification V1.1.3 (<https://io-link.com>)
- *3. Teach SP2 不支持。

5. 状况功能				
状况代码	状况名	种类	内容	措施 / 对策
0x1800 0x1803	内部故障	异常	可能是发生了传感器内部故障。	请重启传感器。如果再次发生异常，则请更换传感器。
0x6320	服务数据异常	异常	在 IO-Link 通信中被写入的设定（服务数据）出现不匹配现象。	请执行系统指令的设定初始化，初始化设定值。 请参见服务数据的索引 2。
0x7710	控制输出 2 负载短路	异常	控制输出 2 流过过电流。	请确认和传感器之间的配线，确定负载电流在额定范围。

承诺事项

本公司产品是为作为工业用途而设计制造的,因此,不适用于以下用途,当本公司产品使用于以下用途时,本公司不承担任何责任。但是本公司产品特为以下用途而设计,或有特别过制情况的情况下,可以用于以下用途:

- (a)需要高安全性的用途 (例如:用于原子能发电设备、核能设备、航空、宇宙设备、铁道设备、升降设备、娱乐设备、医疗设备、安全装置、其他可能危及到生命、人身安全的用途)
- (b)需要高可靠性的用途 (例如:煤气、水力、电力等的供给系统、24小时连续运转系统、决策系统、或其他牵涉到权利、财产的用途)
- (c)苛刻条件或环境下的用途 (例如:室外设备、易受化学污染的设备、易受电磁干扰的设备、易受震动、冲击的设备等的用途)

产品手册里未记载的条件或环境下的用途

除上述(a)到(d)的记载事项,本产品手册等记载的商品不适用于机动车辆(包括二轮车,以下相同)。请勿搭载于机动车辆上使用。机动车辆搭载用商品请洽本公司销售人员。

以上是用途条件的一部分。详情请参阅商品于本公司最新版的综合产品目录,使用手册上的保证、免责声明后再使用。

■ 制造商
 欧姆龙(上海)有限公司
 地址:中国(上海)自由贸易试验区金吉路789号
 电话:(86)21-5050-9988

■ **技术咨询**
欧姆龙（中国）有限公司
地址：中国上海市浦东新区银城中路200号中银大厦2211室
电话：(86)21-6023-0333
技术咨询热线：400-820-4535
网址：<http://www.fa.omron.com.cn>

OMRON Corporation

TOF Laser sensor

Model E3AS-HF6000□MT□ Series

INDEXLIST

Please download IO-Link setting file from company's official website (www.fa.omron.co.jp).



©OMRON Corporation 2025 All Rights Reserved.

3. Process data

bit	7	6	5	4	3	2	1	0
PD0	Measurement Data Channel – Measurement Value (Detection value) PD0: Upper 8bit PD1: Lower 8bit *1*2*3							
PD1								
PD2	Measurement Data Channel – Scale or Intensity (Varies depending on the index 84 process data settings) Scale: Fixed to -3 (This indicates mm as the scale for distance. *2) / Intensity: Varies from 0 to 255 according to light intensity.							

PD3 bit	Assignment	Detail
7	Switching Signal Channel 1 (Output1)	0: Low (OFF) 1: High (ON)
6	Switching Signal Channel 2 (Output2)	0: Low (OFF) 1: High (ON)
5	Instability Alarm (Low Light Intensity)	0: Stable 1: Unstable
4	(Reserved)	0
3	Error (Insufficient Light Intensity)	0: Normal 1: Error
2	Error (Distance Upper/Lower Limit Value)	0: Normal 1: Error (Distance)
1	Warning	Diagnostic output when the sensor cannot continue operation due to a recoverable factor such as a load short-circuit or a service data error 0: Normal 1: Error
0	Error	Diagnostic output when the sensor has an internal error and replacement is needed 0: Normal 1: Error

*1 Detected value output is handled as binary output of 16 bits by combining the upper 8 bits and lower 8 bits. *2 0x8008 at near side and 0x7FF8 at far side when out of detecting range. *3 0x7FFC when insufficient light intensity.

4. Service data

Index	Sub-Index	Name	Backup target*1	Format	Access	Length	Default value	Range	Remark
0	0	Direct Parameter Page1	-	Record	R/W	16byte	-	-	Unused
1	0	Direct Parameter Page2	-	-	-	16byte	-	-	
2	0	System Command	-	UInteger	W	1byte	-	0x40: Teach Apply 0x41: Teach SP1 (Object Teaching) 0x43: 2-point Teaching (1st Point) 0x44: 2-point Teaching (2nd Point) 0x4B: Background Reference Teaching 0x4C: Window Object Teaching 0x4F: Teach Cancel 0x81: Application Reset 0x82: Restore Factory Settings 0x83: Back to Box	Teach Apply: When performing 2-point teaching by system commands, execute 2-point teaching (1st Point), 2-point teaching (2nd Point), and Teach Apply in order. The teaching is reflected in the sensor settings when Teach Apply is executed. The teaching is reflected in the sensor settings when Teach Apply is executed. Application reset: Returns the settable parameters except Tag information in Index 24 to 26 to the factory default state. Restore factory settings: Returns the settable parameters including Tag information in Index 24 to 26 to the factory default state. Back-to-box: Returns the settable parameters including Tag information in Index 24 to 26 to the factory default state. After execution, IO-Link communication is disconnected and then sensor operation stops and the state becomes waiting for the sensor to be removed from the IO-Link master. *3
3	0	Data Storage	-	Record	R/W	-	-	-	Use this when backing up and restoring settings between IO-Link masters. *2
13	1	ProfileCharacteristic	-	UInteger	R	2byte	-	0x0010: DMSS SSP 4.4.1	Indicates the types that E3AS-HF supports as functions of IO-Link. *2
	2		-	UInteger	R	2byte	-	0x4000: Identification and Diagnosis	
14	0	PDInput Descriptor	-	Octet	R	12byte	-	-	*2
16	0	Vendor Name	-	String	R	64byte	-	OMRON Corporation	
17	0	Verdor Text	-	String	R	64byte	-	OMRON Corporation	
18	0	Product Name	-	String	R	64byte	-	-	Model
19	0	Product ID	-	String	R	64byte	-	-	Model
20	0	Product Text	-	String	R	64byte	-	TOF Laser sensor	Sensor Type
21	0	Serial Number	-	String	R	8byte	-	-	
22	0	Hardware Version	-	String	R	4byte	-	-	
23	0	Firmware Version	-	String	R	4byte	-	-	
24	0	Application Specific Tag	○	String	R/W	32byte	*****	Optional	
25	0	Function Tag	○	String	R/W	32byte	*****	Optional	
26	0	Location Tag	○	String	R/W	32byte	*****	Optional	
36	0	Device Status	-	UInteger	R	1byte	-	0x00: Operating properly 0x01: Error (Insufficient Light Intensity) 0x02: Error (Out of Distance Range) 0x04: Breakdown	
37	0	Detailed Device Status	-	Record	R	18byte	-	0x1800/0x1803: Breakdown 0x6320: Parameter Error 0x7710: Control Output2 short-circuit	For details, refer to 5. Event function.
40	0	Process Data Input	-	Record	R	4byte	-	-	
58	0	Teach Select	-	UInteger	R/W	1byte	0x01	0x01: OUT1 0x02: OUT2	This cannot be selected when Output2 Config Mode in index 63 is [Input] or [Current]. OUT1 can be selected by restarting the power supply.
59	0	Teach Result	-	UInteger	R	1byte	0x00	bit 0 to 3: State *0* = IDLE *1* = SP1 SUCCESS *2* = SP2 SUCCESS *3* = SP12 SUCCESS *4* = WAIT FOR COMMAND *5* = BUSY *7* = ERROR bit 4: 2-point teaching (1st Point Flag) *0* = Teaching not performed or failed *1* = Teaching succeeded bit 5: 2-point teaching (2nd Point Flag) *0* = Teaching not performed or failed *1* = Teaching succeeded bit 6: Fixed to 0 bit 7: Fixed to 0	
60	1	Switching Signal Channel 1 (Output1) Param	SP1	○	Integer	R/W	4byte	1000	-6200 to 6200
	2		SP2	○	Integer	R/W	4byte	500	-6200 to 6200
	1		Logic	○	UInteger	R/W	1byte	0x00	0x00: High active (N.O.) 0x01: Low active (N.C.)
61	2	Switching Signal Channel 1 (Output1) Config	Mode	○	UInteger	R/W	1byte	0x01	0x00 : Deactivated 0x01 : Single point 0x02 : Window BGS 0x03 : Window FGS
	3		Hyst	○	Integer	R/W	4byte	10	0 to 1000
62	1	Switching Signal Channel 2 (Output2) Param	SP1	○	Integer	R/W	4byte	1000	-6200 to 6200
	2		SP2	○	Integer	R/W	4byte	500	-6200 to 6200
	1		Logic	○	UInteger	R/W	1byte	0x00	0x00: High active (N.O.) 0x01: Low active (N.C.)
63	2	Switching Signal Channel 2 (Output2) Config	Mode	○	UInteger	R/W	1byte	0x80	0x00 : Deactivated 0x01 : Single point 0x02 : Window BGS 0x03 : Window FGS 0x80 : Invert 0x81 : Error 0x82 : Input 0x83 : Window FGS 0x84 : Current
	3		Hyst	○	Integer	R/W	4byte	10	0 to 1000

Index	Sub-Index	Name	Backup target*1	Format	Access	Length	Default value	Range	Remark
64	0	Vendor Command	-	UInteger	W	1byte	-	0x01: Teach SP1 (Object Teaching) 0x03: 2-point Teaching (1st Point) 0x04: 2-point Teaching (2nd Point) 0x09: Background Reference Teaching 0x0A: Window Object Teaching 0x0B: Teach Cancel 0x0C: Current Scaling Value Teaching (Low) 0x0D: Current Scaling Value Teaching (High) 0xA1: Execute Laser OFF 0xA2: Execute Laser ON 0xA3: Zero Reset On 0xA4: Zero Reset Off 0xA5: LED Blink On 0xA6: LED Blink Off	
65	1	Output1 Timer (Mode)	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On Delay 0x02: Off Delay 0x03: One Shot	
	2	Output1 Timer (Time)	○	UInteger	R/W	2byte	5	1 to 9999 (Unit: 1ms)	
66	1	Output2 Timer (Mode)	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On Delay 0x02: Off Delay 0x03: One Shot	This can be selected only when "Output2 Config Mode" in index 63 is [Single], [Window BGS] or [Window FGS]
	2	Output2 Timer (Time)	○	UInteger	R/W	2byte	5	1 to 9999 (Unit: 1ms)	
67	0	Display Selection	○	UInteger	R/W	1byte	0x00	0x00: Standard 0x01: Simple 0x02: Bar 0x03: ON/OFF 0x04: Current	Current: This can be selected only when "Output2 Config Mode" in index 63 is [Current]
68	0	Display Reverse	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	
69	0	Display Brightness	○	UInteger	R/W	1byte	0x00	0x00: Normal 0x01: Dark	
70	0	Advanced Settings	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	
71	0	Key Lock	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: Enable / Button Unlocking Possible 0x02: Enable / Button Unlocking Not Possible	
72	0	Response Time	○	UInteger	R/W	1byte	0x03	0x00: 2ms 0x01: 10ms 0x02: 50ms 0x03: 200ms	
73	0	Input Function	○	UInteger	R/W	1byte	0x00	0x00: Laser Off 0x01: Teach 0x02: Zero Reset	This can be selected only when "Output2 Config Mode" in index 63 is [Input]
74	0	Zero Reset Memory	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	This can be selected only when executing [Zero Reset On] in index 64 or executing zero reset by external input.
75	0	Mutual Interference Prevention	○	UInteger	R/W	1byte	0x00	0x00: Auto 0x01: Channel 1 0x02: Channel 2 0x03: Channel 3 0x04: Channel 4	
76	0	Keep Function	○	UInteger	R/W	1byte	0x00	0x00: Off 0x01: On	
80	0	Object Teaching Setting	○	UInteger	R/W	1byte	0x00	0x00: Object Teaching 0x01: Window Object Teaching	The operation when the Teach button is held down for 3 seconds or when ON for 3 seconds while "Input Function" in index 73 is [Teach] can be selected.
82	0	Sensitivity	○	UInteger	R/W	1byte	0x00	0x00: Very High 0x01: High 0x02: Middle 0x03: Low 0x04: Very Low	This can be selected only when "Response Time" in index 72 is [10ms], [50ms] or [200ms]
84	0	Process Data Settings	○	UInteger	R/W	1byte	0x00	0x00: Scale 0x01: Intensity	[Scale] complies with Smart Sensor Profile (SSP 4.1.1). *2
85	0	Language	○	UInteger	R/W	1byte	0x01	0x01: English 0x02: Japanese 0x03: Spanish 0x04: Italian 0x05: German	
160	0	Operating Hours	-	UInteger	R	4byte	-	0 to 131071 (Unit: 1h)	
163	1	Current Scaling Low (4 mA)	○	UInteger	R/W	2byte	50	-6200 to 6200	
	2	Current Scaling High (20 mA)	○	UInteger	R/W	2byte	6000	-6200 to 6200	
166	0	Hysteresis Mode	○	UInteger	R/W	1byte	0x00	0x00: Auto 0x01: Manual	
167	0	Warning Up Status	-	UInteger	R	1byte	-	0x00: Normal 0x01: Warning Up	
16512	1	MDC Decsr Lower Value	-	Integer	R	4byte	50	Rated minimum distance Value fixed to 50 (50 mm)	*2
	2	MDC Decsr Upper Value	-	Integer	R	4byte	6000	Rated maximum distance Value fixed to 6000 (6000 mm)	
	3	MDC Decsr Unit Code	-	UInteger	R	2byte	1010	Measurement unit Value fixed to 1010 (Distance (m))	
	4	MDC Decsr Scale	-	Integer	R	1byte	-3	Scale Value fixed to -3 (convert mm→m: 10*(-3))	

*1. Execute teaching and zero reset again after backup and device replacement. The detected value for the actual distance may vary for each device.

*2. Details please refer to the specification : IO-Link interface and System Specification V1.1.3 (https://io-link.com)

*3. Teach SP2 is not supported.

5. Event function

Event Code	Event Name	Type	Description	Action
0x1800	Breakdown	Error	The sensor might be broken internally.	Start up (turn ON) the sensor again, If the error occurs again, replace the sensor.
0x1803				
0x6320	Parameter error	Error	Inconsistency has occurred on the settings (service data) written in by the IO-Link communications.	Execute the system command to "Restore the factory settings" to initialize the settings. Refer to Index 2 of the service data.
0x7710	Control Output2 short-circuit	Error	Control output 2 is in the load short-circuit condition.	Check the wiring, and make sure that the load current is within ratings. If the error occurs again, replace the sensor.

Suitability for Use

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

OMRON Corporation (Manufacturer)
Shiokoji Horikawa, Shimogyo-ku, Kyoto, 600-8530 JAPAN

Contact: www.ia.omron.com

Regional Headquarters

■ OMRON EUROPE B.V. (Importer in EU)

Wegalaan 67-69, 2132 JD Hoofddorp
The Netherlands
Tel: (31) 2356-81-300/Fax: (31) 2356-81-388

■ OMRON ELECTRONICS LLC

2895 Greenspoint Parkway, Suite 200
Hoffman Estates, IL 60169 U.S.A.
Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

■ OMRON ASIA PACIFIC PTE. LTD.

438B Alexandra Road, #08-01/02
Alexandra Technopark,
Singapore 119968
Tel: (65) 6835-3011/Fax: (65) 6835-3011

■ OMRON (CHINA) CO., LTD.

Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China
Tel: (86) 21-6023-0333/Fax: (86) 21-5037-2388