

HG-C1000L Series INDEX LIST



IMJE-HGCINDEX No.0065-95V

IO-Link setting file (IODD) can be downloaded from our website (<https://panasonic.net/id/pidsx/global>).

1 PHYSICAL LAYER

Model No.	HG-C1030L3-P□	HG-C1050L3-P□	HG-C1100L3-P□	HG-C1200L3-P□	HG-C1400L3-P□
Baudrate	COM3 (230.4kbps)				
Minimum cycle time	1ms				
Process data length	4byte				
Vendor ID	834				
Device ID	0x028000	0x028001	0x028002	0x028003	0x028004

2 PROCESS DATA (PD)

		Bit							
		7	6	5	4	3	2	1	0
PD0	Measurement Value	HG-C1030L3-P□: -5100 to +5100 HG-C1050L3-P□: -1530 to +1530 HG-C1100L3-P□: -3570 to +3570 HG-C1200L3-P□: -816 to +816 HG-C1400L3-P□: -2040 to +2040							
PD1	Scale: Sets the Position of Decimal Point.	HG-C1030L3-P□: -3 (0.001mm) HG-C1050L3-P□: -2 (0.01mm) HG-C1100L3-P□: -2 (0.01mm) HG-C1200L3-P□: -1 (0.1mm) HG-C1400L3-P□: -1 (0.1mm)							

PD3		Assignment	Remarks
7	bit	Control Output (DO)	0: OFF 1: ON
6		Fixed	0
5		Fixed	0
4		Emission State	0: Emission halt 1: Emission
3		Zero Set State	0: OFF 1: Zero set
2		Information Notification	0: OFF 1: ON
1		Error Level	0: Normal 1: Caution 2: Fault
0			

3 SERVICE DATA (SD)

Index	Sub Index	Name	R/W	Back up Target	Format	Data Length	Default Data	Description of Settings
2	0	SystemCommand	W		UInteger	1byte		0x4B : Limit-teaching (JP key) 0x4C : Limit-teaching (DOWN key) 0x4D : Teaching input 0x4F : Teaching cancel 0x82 : Reset setting 0xA0 : Execution of zero set (save in memory) 0xA1 : Execution of zero set (do not save in memory) 0xA2 : Cancellation of zero set (delete value saved in memory) 0xB0 : Activation of trigger function 0xB1 : Deactivation of trigger function 0xB2 : Peak / Bottom hold release
12	0	Device Access Locks	R/W		Record	2byte	0	Local User Interface Lock 0: Unlock 8: Lock Main Unit: Linked with key lock
16	0	Vendor Name	R		String	63byte		
17	0	Vendor Text	R		String	63byte		
18	0	Product Name	R		String	63byte		
19	0	Product ID	R		String	63byte		
20	0	Product Text	R		String	63byte		
21	0	Serial Number	R		String	16byte		
22	0	Hardware Version	R		String	3byte		
23	0	Firmware Version	R		String	4byte		
24	0	Application Specific Tag	R/W	○	String	32byte		
37	0	Detailed Device Status	R		UInteger	12byte		
40	0	ProcessDataInput	R		UInteger	4byte		
60	1	Threshold Value Setting 1 (Note 1)	R/W	○	Integer	2byte	-	Threshold value 1_SL
	2	Threshold Value Setting 2 (Note 1)	R/W	○	Integer	2byte	-	Threshold value 2_SL
	1	Output Operation Setting of C/Q Output	R/W	○	UInteger	1byte	0	0: Light-ON 1: Dark-ON
61	2	Sensing Output Setting of C/Q Output	R/W	○	UInteger	1byte	0x01	0x01 : Normal Sensing mode 0x82 : Window comparator mode 0x80 : Window comparator mode (3-point teaching) (1-point teaching) 0x83 : Rising differential mode 0x81 : Window comparator mode 0x84 : Trailing differential mode (2-point teaching)
	3	Hysteresis Setting of C/Q Output (Note 1)	R/W	○	UInteger	2byte	-	HG-C1030L3-P□: 0.001 to 5.00mm HG-C1200L3-P□: 0.1 to 80.0mm HG-C1050L3-P□: 0.01 to 15.00mm HG-C1400L3-P□: 0.2 to 200.0mm HG-C1100L3-P□: 0.02 to 35.00mm
63	1	Output Operation Setting of DO Output	R	○	UInteger	1byte	0	Linkage with index61_1
	2	Sensing Output Setting of DO Output	R	○	UInteger	1byte	0	Linkage with index61_2
	3	Hysteresis Setting of DO Output (Note 1)	R	○	UInteger	2byte	0	Linkage with index61_3
64	1	Timer Setting	R/W	○	UInteger	1byte	0	0: Disable 2: ON-delay timer 1: OFF-delay timer 3: One-shot timer
	2	Timer Period	R/W	○	UInteger	1byte	0	0: 5ms 5: 250ms 1: 10ms 6: 500ms 2: 25ms 7: 1,000ms 3: 50ms 8: 5,000ms 4: 100ms
66	0	Response Speed Setting	R/W	○	UInteger	1byte	2	0: Fast (1.5ms) 2: H.rso (10ms) 1: Std (5ms)
67	1	Differential Mode - Span Setting	R/W	○	UInteger	1byte	0	0: d-01 4: d-05 1: d-02 5: d-06 2: d-03 6: d-07 3: d-04 7: d-08
	2	Differential Mode - Threshold Value Setting (Note 1)	R/W	○	UInteger	2byte		Differential mode - threshold value
70	0	Emission Halt	R/W		UInteger	1byte	0	0: Emission 1: Emission halt

Index	Sub index	Name	R/W	Back up target	Format	Data length	Default data	Description of settings
74	1	Shift Setting	R	○	UInteger	1byte	1	Selection of unit 1: digit (Fixed)
	2	Shift Amount (Note 1)	R/W	○	UInteger	2byte	-	Setting of range Lower-limit value: Value twice the hysteresis value
80	0	ECO Setting	R/W	○	UInteger	1byte	0	0: OFF 1: ON
83	0	Display Setting	R/W	○	UInteger	1byte	0	0: Normal 1: Invert 2: Offset
84	0	Peak / Bottom Hold Setting	R/W	○	UInteger	1byte	0	0: Disable 1: Peak hold 2: Bottom hold
85	1	Measurement Error Hold Setting	R/W	○	UInteger	1byte	0	0: Hold OFF 1: Hold ON
	2	Measurement Error Notification Setting	R/W	○	UInteger	1byte	0	0: Disable 1: Enable
160	0	Detection Margin	R/W	○	Integer	2byte	0	0: 200% 1: 300% 2: 400% 3: 500% 4: 150%
162	0	Instability Detection Delay Time	R/W	○	UInteger	2byte	10000	10 to 30,000ms
163	0	Operating Time	R	○	UInteger	4byte	0	Cumulative operating period (Units: h) (Note 2)
164	0	Number of Data Save Operations	R	○	UInteger	4byte	0	Number of times data is saved to non-volatile memory
168	0	Notification Flag Setting	R/W	○	UInteger	4byte	0	0: Notify 1: Do not notify
169	0	Notification Event Code	R	○	UInteger	2byte		Newest event code readout

Notes: 1) IO-Link communication data is sent and received as integer values. Integer values multiplied by scale values are used as sensor setting values.

Model No.	Scale value
HG-C1030L3-P□	0.001
HG-C1050L3-P□, HG-C1100L3-P□	0.01
HG-C1200L3-P□, HG-C1400L3-P□	0.1

<Example>

If the data to be written to Index60 Sub index 1 (Threshold value setting 1) is set to 20, the sensor setting value will be 0.020.
 $20 (\text{integer value}) \times 0.001 (\text{HG-C1030L3-P□ scale value}) = 0.020 (\text{sensor setting value})$

Notes: 2) This is not added to the cumulative operating period if the operating time is less than 1 hour.

4 EVENT FUNCTION

Error indication	Event code	Error level	State
Er 11	0x7710	Fault	Detection of output wire short-circuit / overcurrent
Er 90 Er 91 Er 92 Er 93	0x1815	Fault	System error
Er 01	0x1802	Fault	Nonvolatile memory write error
Er 02	0x1803	Fault	Nonvolatile memory error
Er 21	0x1810	Fault	Light emission circuit damage
Display of measured value	0x8D00	Caution	Operating time exceeded
Display of measured value	0x8D01	Caution	Max. number of the nonvolatile memory save operations exceeded
Er 31	0x8CB0	Normal	Zero set not possible
Er 41	0x8CB2	Normal	Teaching not possible
---	0x8CA0	Normal	Measurement error (center of gravity computation failure)(Note 1) * Measured value: Transmission of 32764
---	0x8CA1	Normal	Measurement error (out of specification range, near point side)(Note 1) * Measured value: Transmission of 32000
---	0x8CA2	Normal	Measurement error (out of specification range, far point side)(Note 1) * Measured value: Transmission of -32000
Display of measured value	0x8CA3	Normal	Low incident light intensity

Information notification
(Note 2)

Notes: 1) Set Measurement Error Setting to "1: Enable" using "2. Measurement Error Notification Setting, Sub Index 2, Index 85" before notification information is read by the notification event code.
 2) When notification event codes are continuously read from the high-level master side, "0x0000" will be read out even if the event status remains.

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