

Version: V0.1	Release Date: 2017-09-12
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UK1A/G7-0EIOSY, UK1A/G7-1EIOSY	
Vendor ID	773 (0x0305)
Vendor Name	MD Micro Detectors S.p.A.
Vendor Text	MD Micro Detectors S.p.A.
Vendor URL	<a href="http://www.microdetectors.com">www.microdetectors.com</a>
Device ID	1102 (0x00044e)
DeviceFamily	Ultrasonic Sensors
	
<b>Features</b>	
Block Parameter	yes
Data Storage	yes
Profile Characteristic	0x0001 (Device Profile: Generic Profiled Sensor), 0x8000 (Function Class: Device identification), 0x8001 (Function Class: Multiple switching signal), 0x8002 (Function Class: Process data variable), 0x8003 (Function Class: Device diagnosis), 0x8004 (Function Class: Teach channel)
Supported Access Locks	Parameter: no, Data Storage: yes, Local Parameterization: yes, Local User Interface: no
<b>Communication</b>	
IO-Link Revision	V1.1
Compatible with	V1.0
Transmission Rate	38400 bit/s (COM2)
Minimum Cycle Time	3.2 ms
SIO Mode Supported	yes
M-Sequence Capability	PREOPERATE = TYPE_1_V with 8 octets on-request data OPERATE = TYPE_2_V with 2 octets on-request data ISDU supported
<b>Device Variant</b>	
<b>UK1A/G7-0EIOSY</b>	
Description	Ultrasonic Distance Sensor
Product ID	UK1A/G7-0EIOSY
Device Icon	
Device Symbol	
Connection Type	Non-standard connector
Connection Symbol	
Connection Description	M12-5 / 1=[L+] 2=[OUT2] 3=[L-] 4=[C/Q] 5=[SYNC]
<b>Device Variant</b>	
<b>UK1A/G7-1EIOSY</b>	
Description	Ultrasonic Distance Sensor
Product ID	UK1A/G7-1EIOSY
Device Icon	
Device Symbol	
Connection Type	Non-standard connector
Connection Symbol	
Connection Description	M12-5 / 1=[L+] 2=[OUT2] 3=[L-] 4=[C/Q] 5=[SYNC]

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**ProcessData id=V\_PdT**

**ProcessDataIn "Process Input Data" id=V\_PdInT**

bit length: 32

data type: 32-bit Record (subindex access not supported)

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	16	16-bit Integer	-32760 = UL, 32760 = OL, 40..500					Distance	Current distance
2	8	8-bit Integer						Temperature	Current device temperature
3	4	4-bit Integer	0..2					Diagnosis	Current device status, a copy of the variable [Device Status] in the process data channel
6	1	Boolean	false = inactive, true = active					OUT2	[OUT2] Hysteresis normally open
7	0	Boolean	false = inactive, true = active					OUT1	[OUT1] Hysteresis normally open

**Octet 0**

bit offset	31	30	29	28	27	26	25	24
subindex	1							
element bit	15	14	13	12	11	10	9	8

**Octet 1**

bit offset	23	22	21	20	19	18	17	16
subindex	1							
element bit	7	6	5	4	3	2	1	0

**Octet 2**

bit offset	15	14	13	12	11	10	9	8
subindex	2							
element bit	7	6	5	4	3	2	1	0

**Octet 3**

bit offset	7	6	5	4	3	2	1	0
subindex	3							
element bit	3	2	1	0	//////	//////	6	7

[\[Top\]](#)**Standard Variable "Direct Parameters - Page 1" index=0 id=V\_DirectParameters\_1**

description: Comprises the required parameters defining the communication characteristics and identifiers for device validation.

data type: 128-bit Record

access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	120	8-bit UInteger			ro			Reserved	
2	112	8-bit UInteger			ro			Master Cycle Time	Communication: Current communication cycle duration used by the master. This value defines the process data cycle.
3	104	8-bit UInteger			ro			Min Cycle Time	Communication: Minimum communication cycle duration supported by the device. This value defines the lowest possible process data cycle.
4	96	8-bit UInteger			ro			M-Sequence Capability	Communication: Information on the structure and the supported features of the communication messages.
5	88	8-bit UInteger		17	ro			IO-Link Revision ID	Communication: Identifier for the currently used communication protocol revision.
6	80	8-bit UInteger			ro			Process Data Input Length	Communication: Information on width and features of the process input data (Process Data from Device to Master).
7	72	8-bit UInteger			ro			Process Data Output Length	Communication: Information on width of the process output data (Process Data from Master to Device).
8	64	8-bit UInteger			ro			Vendor ID 1	Identification: Highest octet of the Vendor ID. Combined with the parameter Vendor ID 2, this parameter defines the 16-bit value of the unique Vendor ID as assigned by the IO-Link Community.
9	56	8-bit UInteger			ro			Vendor ID 2	Identification: Lowest octet of the Vendor ID. Combined with the parameter Vendor ID 1, this parameter defines the 16-bit value of the unique Vendor ID as assigned by the IO-Link Community.
10	48	8-bit UInteger			ro			Device ID 1	Identification: Highest octet of the Device ID. Combined with the parameters Device ID 2 and 3, this parameter defines the 24-bit value of the vendor-

									specific Device ID.
11	40	8-bit UInteger			ro			Device ID 2	Identification: Middle octet of the Device ID. Combined with the parameters Device ID 1 and 3, this parameter defines the 24-bit value of the vendor- specific Device ID.
12	32	8-bit UInteger			ro			Device ID 3	Identification: Lowest octet of the Device ID. Combined with the parameters Device ID 1 and 2, this parameter defines the 24-bit value of the vendor- specific Device ID.
13	24	8-bit UInteger			ro			Reserved	
14	16	8-bit UInteger			ro			Reserved	
15	8	8-bit UInteger			ro			Reserved	
16	0	8-bit UInteger			wo	X		System Command	Application: Command interface for devices without ISDU support. Validity and execution of commands are not confirmed.

octet	0	1	2	3	4	5	6	7
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64
subindex	1	2	3	4	5	6	7	8
element bit	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0

octet	8	9	10	11	12	13	14	15
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0
subindex	9	10	11	12	13	14	15	16
element bit	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0

## Standard Variable "Direct Parameters - Page 2" index=1 id=V\_DirectParameters\_2

description: A set of parameters for devices without ISDU support.

data type: 128-bit Record

access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	120	8-bit UInteger						Device-specific Parameter 1	
2	112	8-bit UInteger						Device-specific Parameter 2	
3	104	8-bit UInteger						Device-specific Parameter 3	
4	96	8-bit UInteger						Device-specific Parameter 4	
5	88	8-bit UInteger						Device-specific Parameter 5	
6	80	8-bit UInteger						Device-specific Parameter 6	
7	72	8-bit UInteger						Device-specific Parameter 7	
8	64	8-bit UInteger						Device-specific Parameter 8	
9	56	8-bit UInteger						Device-specific Parameter 9	
10	48	8-bit UInteger						Device-specific Parameter 10	
11	40	8-bit UInteger						Device-specific Parameter 11	
12	32	8-bit UInteger						Device-specific Parameter 12	
13	24	8-bit UInteger						Device-specific Parameter 13	
14	16	8-bit UInteger						Device-specific Parameter 14	
15	8	8-bit UInteger						Device-specific Parameter 15	
16	0	8-bit UInteger						Device-specific Parameter 16	

octet	0	1	2	3	4	5	6	7
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64
subindex	1	2	3	4	5	6	7	8

element bit	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0
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octet	8	9	10	11	12	13	14	15
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0
subindex	9	10	11	12	13	14	15	16
element bit	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0	7 - 0

### Standard Variable "System Command" index=2 id=V\_SystemCommand

description: Command interface for applications. A positive acknowledge indicates the complete and correct finalization of the requested function.

data type: 8-bit UInteger

allowed values: 65 = [SP1] one-point teach, determines the teach point for [SP1], 66 = [SP2] one-point teach, determines the teach point for [SP2], 130 = Restore Factory Settings

access rights: wo

modifies other variables

octet	0
bit offset	7 - 0
element bit	7 - 0

### Standard Variable "Device Access Locks" index=12 id=V\_DeviceAccessLocks

description: The access to the device parameters can be restricted by setting appropriate flags within this parameter.

data type: 16-bit Record (subindex access not supported)

access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	0	Boolean	false = Unlocked, true = Locked					Parameter Write Access	This lock prevents the write access to all read/write parameters of the device except for the parameter 'Device Access Locks'.
2	1	Boolean	false = Unlocked, true = Locked	false				Data Storage	This lock prevents the write access to the device parameters via the data storage mechanism.
3	2	Boolean	false = Unlocked, true = Locked	false				Local Parameterization	This lock prevents the device settings from being changed via local operating elements on the device.
4	3	Boolean	false = Unlocked, true = Locked					Local User Interface	This lock prevents the access to the device settings and display via a local user interface. The user interface is disabled.

#### Octet 0

bit offset	15	14	13	12	11	10	9	8
subindex	/////	/////	/////	/////	/////	/////	/////	/////

#### Octet 1

bit offset	7	6	5	4	3	2	1	0
subindex	/////	/////	/////	/////	4	3	2	1

### Standard Variable "Vendor Name" index=16 id=V\_VendorName

description: The vendor name that is assigned to a Vendor ID.

data type: 64-octet String UTF-8

default value: "MD Micro Detectors S.p.A."

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

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octet	32	33	34	35	36	37	38	39
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

  

octet	40	41	42	43	44	45	46	47
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

  

octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

  

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Vendor Text" index=17 id=V\_VendorText

description: Additional information about the vendor.

data type: 64-octet String UTF-8

default value: "MD Micro Detectors S.p.A."

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

  

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

  

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

  

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

  

octet	32	33	34	35	36	37	38	39
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

  

octet	40	41	42	43	44	45	46	47
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

  

octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

  

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Product Name" index=18 id=V\_ProductName

description: Complete product name.

data type: 64-octet String UTF-8

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

  

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

  

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

  

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

  

octet	32	33	34	35	36	37	38	39
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

  

octet	40	41	42	43	44	45	46	47
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bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128
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octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

  

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Product ID" index=19 id=V\_ProductID

description: Vendor-specific product or type identification (e.g., item number or model number).

data type: 64-octet String UTF-8

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

  

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

  

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

  

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

  

octet	32	33	34	35	36	37	38	39
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

  

octet	40	41	42	43	44	45	46	47
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

  

octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

  

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Product Text" index=20 id=V\_ProductText

description: Additional product information for the device.

data type: 64-octet String UTF-8

default value: "Ultrasonic Distance Sensor"

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

  

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

  

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

  

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

  

octet	32	33	34	35	36	37	38	39
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

  

octet	40	41	42	43	44	45	46	47
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

  

octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Serial Number" index=21 id=V\_SerialNumber

description: Unique, vendor-specific identifier of the individual device.

data type: 16-octet String UTF-8

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

octet	8	9	10	11	12	13	14	15
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Hardware Revision" index=22 id=V\_HardwareRevision

description: Unique, vendor-specific identifier of the hardware revision of the individual device.

data type: 64-octet String UTF-8

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

octet	32	33	34	35	36	37	38	39
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

octet	40	41	42	43	44	45	46	47
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Firmware Revision" index=23 id=V\_FirmwareRevision

description: Unique, vendor-specific identifier of the firmware revision of the individual device.

data type: 64-octet String UTF-8

access rights: ro

octet	0	1	2	3	4	5	6	7
bit offset	511 - 504	503 - 496	495 - 488	487 - 480	479 - 472	471 - 464	463 - 456	455 - 448

octet	8	9	10	11	12	13	14	15
bit offset	447 - 440	439 - 432	431 - 424	423 - 416	415 - 408	407 - 400	399 - 392	391 - 384

octet	16	17	18	19	20	21	22	23
bit offset	383 - 376	375 - 368	367 - 360	359 - 352	351 - 344	343 - 336	335 - 328	327 - 320

octet	24	25	26	27	28	29	30	31
bit offset	319 - 312	311 - 304	303 - 296	295 - 288	287 - 280	279 - 272	271 - 264	263 - 256

octet	32	33	34	35	36	37	38	39
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bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192
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octet	40	41	42	43	44	45	46	47
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

octet	48	49	50	51	52	53	54	55
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

octet	56	57	58	59	60	61	62	63
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Application-specific Tag" index=24 id=V\_ApplicationSpecificTag

description: Possibility to mark a device with user- or application-specific information.

data type: 32-octet String UTF-8

default value: "\*\*\*\*"

access rights: rw

octet	0	1	2	3	4	5	6	7
bit offset	255 - 248	247 - 240	239 - 232	231 - 224	223 - 216	215 - 208	207 - 200	199 - 192

octet	8	9	10	11	12	13	14	15
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128

octet	16	17	18	19	20	21	22	23
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64

octet	24	25	26	27	28	29	30	31
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0

### Standard Variable "Device Status" index=36 id=V\_DeviceStatus

description: Indicator for the current device condition and diagnosis state.

data type: 8-bit UInteger

allowed values: 0 = Device is OK, 1 = Maintenance required, 2 = Out of specification, 3 = Functional check, 4 = Failure

access rights: ro

dynamic

octet	0	
bit offset	7 - 0	
element bit	7 - 0	

### Standard Variable "Detailed Device Status" index=37 id=V\_DetailedDeviceStatus

description: List of all currently pending events in the device.

data type: Array[8] of 3-octet OctetString (subindex access not supported)

default value: 0x00,0x00,0x00

access rights: ro

dynamic

octet	0	1	2	3	4	5	6	7
bit offset	191 - 184	183 - 176	175 - 168	167 - 160	159 - 152	151 - 144	143 - 136	135 - 128
subindex	1	1	1	2	2	2	3	3

octet	8	9	10	11	12	13	14	15
bit offset	127 - 120	119 - 112	111 - 104	103 - 96	95 - 88	87 - 80	79 - 72	71 - 64
subindex	3	4	4	4	5	5	5	6

octet	16	17	18	19	20	21	22	23
bit offset	63 - 56	55 - 48	47 - 40	39 - 32	31 - 24	23 - 16	15 - 8	7 - 0
subindex	6	6	7	7	7	8	8	8

### Standard Variable "PD Input" index=40 id=V\_ProcessDataInput

description: Last valid process input data of the device.

data type: see ProcessDataIn!

access rights: ro

dynamic



[\[Top\]](#)**Variable "TI Select" index=58 id=V\_TI\_Select**

description: Teach selection

data type: 8-bit UInteger

allowed values: 1 = SSC1, 2 = SSC2

default value: 1

access rights: rw

octet	0	
bit offset	7 - 0	
element bit	7 - 0	

**Variable "TI Result" index=59 id=V\_TI\_Result**

description: Teach result

data type: 8-bit Record (subindex access not supported)

access rights: ro

dynamic

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
5	0	4-bit UInteger	0 = Idle, 1 = SP1 Success, 2 = SP2 Success, 3 = SP12 Success, 4 = Wait for command, 5 = Busy, 7 = Error	0				State	Current teach state

**Octet 0**

bit offset	7	6	5	4	3	2	1	0
subindex	/////	/////	/////	/////	5			
element bit					3	2	1	0

**Variable "SSC1 Param" index=60 id=V\_SSC1\_Param**

description: Switching signal channel 1, parameter

data type: 32-bit Record

access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	16	16-bit Integer	50..400	400				SP1	
2	0	16-bit Integer	50..400	50				SP2	

octet	0	1	2	3	
bit offset	31 - 24	23 - 16	15 - 8	7 - 0	
subindex	1	1	2	2	
element bit	15 - 8	7 - 0	15 - 8	7 - 0	

**Variable "SSC1 Config" index=61 id=V\_SSC1\_Config**

description: Switching signal channel 1, configuration

data type: 32-bit Record

access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	24	8-bit UInteger	0 = High active, 1 = Low active	0				Logic	
2	16	8-bit UInteger	0 = Deac / Deactivated, 1 = Sng.P / Single Point, 2 = Wind / Window, 3 = Two.P / Two points	2				Mode	
3	0	16-bit UInteger	1..10	5				Hyst	

octet	0	1	2	3	
bit offset	31 - 24	23 - 16	15 - 8	7 - 0	
subindex	1	2	3	3	
element bit	7 - 0	7 - 0	15 - 8	7 - 0	

**Variable "SSC2 Param" index=62 id=V\_SSC2\_Param**

description: Switching signal channel 2, parameter  
data type: 32-bit Record  
access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	16	16-bit Integer	50..400	400				SP1	
2	0	16-bit Integer	50..400	50				SP2	

octet	0	1	2	3	
bit offset	31 - 24	23 - 16	15 - 8	7 - 0	
subindex	1	1	2	2	
element bit	15 - 8	7 - 0	15 - 8	7 - 0	

### Variable "SSC2 Config" index=63 id=V\_SSC2\_Config

description: Switching signal channel 2, configuration  
data type: 32-bit Record  
access rights: rw

subindex	bit offset	data type	allowed values	default value	acc. restr.	mod. other var.	excl. from DS	name	description
1	24	8-bit UInteger	0 = High active, 1 = Low active	0				Logic	
2	16	8-bit UInteger	0 = Deac / Deactivated, 1 = Sng.P / Single Point, 2 = Wind / Window, 3 = Two.P / Two points	2				Mode	
3	0	16-bit UInteger	1..10	5				Hyst	

octet	0	1	2	3	
bit offset	31 - 24	23 - 16	15 - 8	7 - 0	
subindex	1	2	3	3	
element bit	7 - 0	7 - 0	15 - 8	7 - 0	

### Variable "SSC1 Switch-On delay" index=370 id=V\_SSC1\_dS

description: Switchching signal channel 1, Switch-On delay  
data type: 16-bit UInteger  
allowed values: 0..2000  
default value: 0  
access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

### Variable "SSC1 Switch-Off delay" index=371 id=V\_SSC1\_dr

description: Switchching signal channel 1, Switch-Off delay  
data type: 16-bit UInteger  
allowed values: 0..2000  
default value: 0  
access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

### Variable "SSC2 Switch-On delay" index=372 id=V\_SSC2\_dS

description: Switchching signal channel 2, Switch-On delay  
data type: 16-bit UInteger  
allowed values: 0..2000  
default value: 0  
access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

### Variable "SSC2 Switch-Off delay" index=373 id=V\_SSC2\_dr

description: Switchching signal channel 2, Switch-Off delay  
data type: 16-bit UInteger  
allowed values: 0..2000  
default value: 0  
access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

### Variable "FILT" index=515 id=V\_FILT

description: Filter or response time of the measured signal, LOW indicates fast, HIGH indicates slow response  
data type: 8-bit UInteger  
allowed values: 0 = OFF, 1 = LOW, 2 = MEDl, 3 = HIGH  
default value: 2  
access rights: rw

octet	0		
bit offset	7 - 0		
element bit	7 - 0		

### Variable "Number\_Of\_Powercycles" index=541 id=V\_Number\_Of\_Powercycles

description: Number of power cycles  
data type: 16-bit UInteger  
allowed values: 0..65535  
default value: 0  
access rights: ro  
dynamic

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

### Variable "Operating\_Hours" index=542 id=V\_Operating\_Hours

description: Operating hours  
data type: 16-bit UInteger  
allowed values: 0..65535  
default value: 0  
access rights: ro  
dynamic

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

### Variable "Loc" index=550 id=V\_Loc

description: [Loc] locks the local user interface to prevent unintentional changes, [Loc] is resettable at the device  
data type: 8-bit UInteger  
allowed values: 0 = Loc, 1 = uLoc  
default value: 1  
access rights: rw

octet	0		
bit offset	7 - 0		
element bit	7 - 0		

### Variable "Analog Output Slope" index=590 id=V\_ou2

description: Output configuration [OUT 2]  
data type: 8-bit UInteger  
allowed values: 1 = Analog signal rising, 10 = Analog signal falling  
default value: 1  
access rights: rw

octet	0		
bit offset	7 - 0		
element bit	7 - 0		

**Variable "ASP2" index=630 id=V\_ASP2**

description: Analogue start point 2. [ASP2] must be smaller than [AEP2]. Please take into account the current [AEP2]. For info on the minimum hysteresis [AEP2]-[ASP2] please refer to the operating instructions.

data type: 16-bit Integer

allowed values: 50..400

default value: 50

access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

**Variable "AEP2" index=631 id=V\_AEP2**

description: Analogue end point 2. [AEP2] must be greater than [ASP2]. Please take into account the current [ASP2]. For info on the min hysteresis [AEP2]-[ASP2] please refer to the operating instructions.

data type: 16-bit Integer

allowed values: 50..400

default value: 400

access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

**Variable "ECHO" index=2300 id=V\_ECHO**

description: Echo quality

data type: 8-bit UInteger

allowed values: 0 = no, 1 = LOW, 2 = MED, 3 = GOOD, 4 = HIGH

access rights: ro

dynamic

octet	0	
bit offset	7 - 0	
element bit	7 - 0	

**Variable "Background Suppression" index=2301 id=V\_bACS**

description: Background suppression

data type: 8-bit UInteger

allowed values: 0 = OFF, 1 = On

default value: 0

access rights: rw

octet	0	
bit offset	7 - 0	
element bit	7 - 0	

**Variable "Background value" index=2302 id=V\_bACV**

description: Distance to background. Value must be greater than (SP1 + Hyst). Value is set by teach procedure.

data type: 16-bit Integer

allowed values: 100..400

default value: 400

access rights: rw

octet	0	1	
bit offset	15 - 8	7 - 0	
element bit	15 - 8	7 - 0	

**Variable "Sound cone width" index=3005 id=V\_SoundConeWidth**

data type: 8-bit UInteger

allowed values: 0 = narrow sound cone, 1 = normal sound cone

default value: 1

access rights: rw

octet	0	
bit offset	7 - 0	

element bit	7 - 0	
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## Variable "Internal temperature over lifetime" index=3006 id=V\_InternalTempOLT

data type: 8-bit Integer  
 allowed values: -125..125  
 access rights: ro

octet	0	
bit offset	7 - 0	
element bit	7 - 0	

## Variable "Internal temperature" index=3007 id=V\_InternalTempActual

data type: 8-bit Integer  
 allowed values: -125..125  
 access rights: ro

octet	0	
bit offset	7 - 0	
element bit	7 - 0	

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## Events

Code	Type	Name	Description
16912 (0x4210)	Warning	Device temperature overrun	Clear source of heat
30480 (0x7710)	Error	Short circuit	Check installation

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## Process Data Formatting

Formatting for Process Data id=V_PdInT
Subindex 1: * 1 + 0 mm Dec.0
Subindex 2: * 1 + 0 °C Dec.0

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V_AEP2 * 1 + 0 mm, Dec.0
<b>Signal</b>
V_FILT
V_ECHO
V_bACS
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V_SSC2_Param.SP2 * 1 + 0 mm, Dec.0
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