

Parameter and Process Data

PT20#-####.#####2#.#####.####



IO-Link

PT20#-####.#####2#.#####.####

Device ID

Product	Hex	Decimal
PT20#-####.#####2#.#####.####	0x03FB	1019

IO-Link Version: V 1.1
 Data Storage: Yes
 Block Parameter: Yes
 Min. Cycle Time: 12.0 ms
 SIO-Mode: Yes
 COM-Mode: 38400 bit/s (COM 2)

Process Data (Length: 56 Bit)

Subindex	Bit offset	Name	Length	Type	Range
1	71	Temperature Unit	2 bit	Boolean	0 = Celsius 1 = Fahrenheit 2 = Kelvin
2	67	Valid Configuration	1 bit	Boolean	0 = false 1 = true
3	66	Measurement range exceeded	1 bit	Boolean	0 = false 1 = true
4	65	Wire break	1 bit	Boolean	0 = no wire break 1 = wire break
5	64	Switch output	1 bit	Boolean	0 = In measurement range 1 = Out of measurement range
6	32	Accumulated data Switch 1	32 bit	Float	
7	0	Current output mA	32 bit	Float	

Octet 0

Bit Offset	71	70	69	68	67	66	65	64
Subindex	Temperature Unit		-	-	Valid Configuration	Measurement range exceeded	Wire break Alarm	Switch output

Octet 1-4

Bit Offset	63	32
Subindex	Measurement data Temperature		

Octet 5-9

Bit Offset	31	0
Subindex	Current output mA		

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. - <u>161 (0xA1)</u> : Teach Media channel 1 - <u>162 (0xA2)</u> : Teach Media channel 2
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>) PT20#-####.#####.#####.####
19	0	R	Product Id	8	String	ASCII	Eg: PT20
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: L47327X05078212
22	0	R	Hardware revision	5	String	ASCII	Eg. 01.00
23	0	R	Firmware revision	8	String	ASCII	Eg. 01.00.00
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: 32 bytes.
25	0	R/W	Function Tag	32	String	ASCII	The function 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: 32 bytes.
26	0	R/W	Location Tag	32	String	ASCII	The location 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: 32 bytes.
36	1	R	Status / Diagnosis	1	UInt8	0-4	0 = Device Ok 1 = Maintenance required 2 = Out of specification 3 = Functional check 4 = Failure
Sensor functions							
61	1	R/W	Switch logic	1	UInt8	0-1	0 = High-Active 1 = Low-Active
61	3	R/W	Switch Hysteresis	1	Float	0-60	Sets the hysteresis of the switch output
74	1	R/W	Temperature unit selection	2	UInt16	Enum	13 = Celcius 14 = Farenheit 29 = Kelvin
78	1	R/W	Switch mode	1	UInt8	0-3	0 = OFF 1 = Push-Pull 2 = PNP 3 = NPN
78	5	R/W	Switch alarm mode	4	UInt32	1-4	1 = Output High 2 = Output Low 3 = Output floating (High impedance) 4 = Output frozen

Index	Subindex	Access	SPDU name	Number of Bytes	Format	Range of values	Definition
104	4	R/W	User Day	1	Uint8	1-31	
104	5	R/W	User Month	1	Uint8	1-12	
104	6	R/W	User Year	2	Uint16	1900-2100	
116	3	R/W	Wire break current	4	Uint32	3500-24000	Sets the current of the device when wire break is detected
116	4	R/W	Wire break Enable / Disable	1	Uint8	0-1	0 = Disabled 1 = Enabled
121	2	R/W	Response delay Output	4	Uint32	0-60000	Sets the response delay (damping) on the switch output
121	12	R/W	Response delay IOut	4	Uint32	0-60000	Sets the response delay (damping) on the current output
121	22	R/W	Response delay Output	4	Uint32	0-60000	Sets the response delay (damping) on the switch input. This has effect on both switch output, current output and digital values.
202	2	R/W	Analog output – temperature at LRV	4	Float	-200 - 524	Sets the temperature at lower range value (LRV).
202	4	R/W	Analog output – temperature at URV	4	Float	-200 - 524	Sets the temperature at upper range value (URV).
202	7	R/W	Analog output – output current min	4	Uint32	3500-23000	Minimum current allowed
202	8	R/W	Analog output – output current max	4	Uint32	3500-23000	Maximum current allowed
234	1	RO	RTD sensor type	1	Uint8	0-255	1 = PT A3850 2 = PT A3902 3 = PT A3916 4 = NI A1618 5 = CU A1428 6 = PT A3920 255 = User specified
234	2	RO	RTD Base value	4	Float		Base value in ohm of the RTD device
235	1	RO	Transducer connection wiring type	1	Uint8	1-4	1 = 2 Wire 2 = 3 Wire 3 = 4 Wire 4 = internal
400	1	R/W	Calibration Point 1	4	Uint32	-200-524	User calibration point
400	2	R/W	Calibration Point 2	4	Uint32	-200-524	User calibration point
400	3	R/W	Calibration Point 3	4	Uint32	-200-524	User calibration point
401	1	R/W	Calibration Value 1	4	Uint32	-200-524	User calibration value
401	2	R/W	Calibration Value 2	4	Uint32	-200-524	User calibration value
401	3	R/W	Calibration Value 3	4	Uint32	-200-524	User calibration value