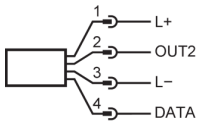
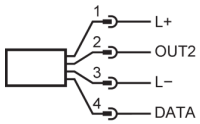
IO-Link Interface Description

PL1514
PL1314

EN

IODD-PDFCreator V2.3.9595
ifm-0005D2-20260409-IODD1.1, V1.3.68.1366518
Copyright 2026, IODDModifier: 4.1.9595.16105, Time: 13:05:44

Device variant

PL1514 **Electronic pressure sensor, -100000...1600000 Pa / -1.000...16.000 bar, G 1/2"**		
PL1314 **Electronic pressure sensor, -100000...1600000 Pa / -1.000...16.000 bar, G 1/2", DIN EN ISO 1179-2**		

Vendor ID	310 / Bytes 1-54 (hex: 01-36)
Device ID	1490 / Bytes 0-5-210 (hex: 00-05-D2)
Bit rate	COM2
Minimum cycle time	3,5 ms
Process Data	8 Bytes (Input 8 Bytes / Output 0 Bytes)
SIO mode supported	No
Block parameterization	Yes
Data storage	Yes
Supported profiles	16384 / hex: 0x4000 Identification and Diagnosis 32778 / hex: 0x800A Measurement Data Channel, standard resolution

NOTE:
If the Vendor ID and Device ID are specified in your PLC system, it is ensured that
- the correct device is connected,
- the IO-Link data storage is enabled,
- your application is still able to function, even if your device is replaced by a successor model at a later date

For the process value update rate, as well as further information regarding sensor performance, see data sheet.

Unit conversion

This list provides conversion formulas to convert the transmitted IO-Link raw data into physical units.

Pressure

Value in [bar]	=	Transferred value	*	0.001
Value in [psi]	=	Transferred value	*	0.0145038
Value in [MPa]	=	Transferred value	*	0.0001

Temperature

Value in [°C]	=	Transferred value	*	0.01
Value in [°F]	=	Transferred value	*	0.018 + 32

Process Data

Process Data

Process Data Input:	8 Bytes
Process Data Output:	0 Byte

Process Data Input — RecordT (64 Bit)

Pressure — IntegerT (16 Bit)

Current pressure

Value range [Pa]	(-1000 to 16500) * 100	
	32760	(OL - overload) 0x7FF8
	32764	(NoData) 0x7FFC

Scale PRES — IntegerT (8 Bit)

Scale PRES: A PLC function block calculates the pressure part of the process data (from Offset 0) into the profiled unit [Pa]

Value range	2	(Exp)

Temperature — IntegerT (16 Bit)

Current temperature

Value range [°C]	(-3000 to 11500) * 0.01	
	-32760	(UL - underload) 0x8008
	32760	(OL - overload) 0x7FF8
	-32762	(cr.UL - critical underload) 0x8006
	32762	(cr.OL - critical overload) 0x7FFA
	32764	(NoData) 0x7FFC

Scale TEMP — IntegerT (8 Bit)

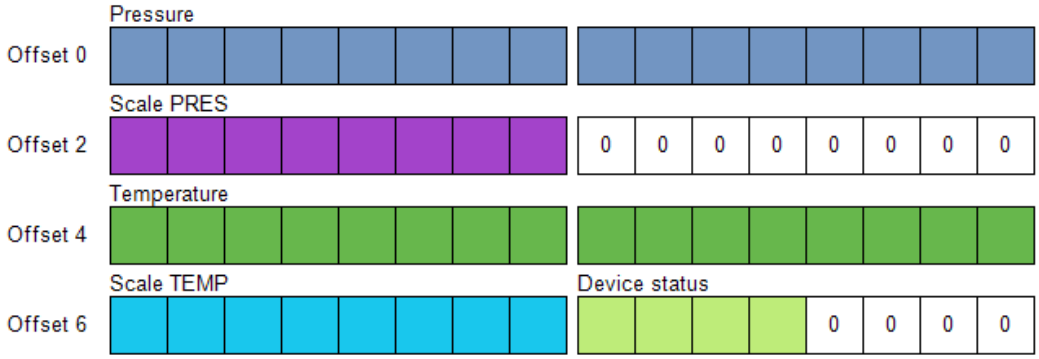
Scale TEMP: A PLC function block calculates the temperature part of the process data (from Offset 4) into the profiled unit [°C]

Value range	-2	(Exp)

Device status — UIntegerT (4 Bit)

Current device status, a copy of the parameter [Device Status, Index 36] in the process data channel

Value range	0	(Device is OK)
	1	(Maintenance required)
	2	(Out of specification)
	3	(Functional check)
	4	(Failure)



Data is transmitted in BigEndian format.
The position of the process data bytes is shown according to the device transmission sequence.
The content ofyour PLCs input buffer may vary according to your PLCs data format.
Please do not apply any byte swap feature.
Example function blocks incl. documentation are available on www.ifm.com --> Startup Packages

Parameter overview

Parameter	Index	Subindex	Type	Factory setting	Page
Vendor Name	16		StringT (19 Byte)	ifm electronic gmbh	10
Vendor Text	17		StringT (11 Byte)	www.ifm.com	10
Product Name	18		StringT (6 Byte)		10
Product ID	19		StringT (6 Byte)		10
Product Text	20		StringT (26 Byte)	Electronic pressure sensor	10
Serial Number	21		StringT (12 Byte)		10
Hardware Revision	22		StringT (2 Byte)		10
Firmware Revision	23		StringT (5 Byte)		10
Application-specific Tag	24		StringT (32 Byte)	***	10
Function Tag	25		StringT (32 Byte)	***	10
Location Tag	26		StringT (32 Byte)	***	10
Device Status	36		UIntegerT (8 Bit)	0 (Device is OK)	14
Detailed Device Status	37		OctetStringT (3 Byte) [11]	0x00,0x00,0x00	14
Process Data Input	40		RecordT (64 Bit)		4
Pressure	40		IntegerT (16 Bit)		4
Scale PRES	40		IntegerT (8 Bit)		4
Temperature	40		IntegerT (16 Bit)		4
Scale TEMP	40		IntegerT (8 Bit)		4
Device status	40		UIntegerT (4 Bit)		4
dAP.P	510		UIntegerT (16 Bit)	6	11
dAA	512		UIntegerT (16 Bit)	10	11
Event counter collection	529		RecordT (352 Bit)		14
Event counter 0x5000	529	1	IntegerT (32 Bit)		14
Event counter 0x6320	529	2	IntegerT (32 Bit)		14
Event counter 0x8C10	529	3	IntegerT (32 Bit)		14
Event counter 0x8C30	529	4	IntegerT (32 Bit)		14
Event counter 0x8C20	529	5	IntegerT (32 Bit)		14
Event counter 0x4220	529	6	IntegerT (32 Bit)		14
Event counter 0x4210	529	7	IntegerT (32 Bit)		14
Event counter 0x8C01	529	8	IntegerT (32 Bit)		15
Event counter 0x8CDB	529	9	IntegerT (32 Bit)		15
Event counter 0x8DFE	529	10	IntegerT (32 Bit)		15
Event counter 0x8DFF	529	11	IntegerT (32 Bit)		15
FOU2	532		UIntegerT (8 Bit)	4 (OFF)	11
Event history	539		UIntegerT (16 Bit) [20]	0 (noEvent)	14
Operating hours	542		IntegerT (32 Bit)		15
Internal temperature	543		IntegerT (16 Bit)		16
Active Events	545		RecordT (32 Bit)		15
Bit_31	545		BooleanT		15
Bit_30	545		BooleanT		15
Bit_29	545		BooleanT		15
Bit_16	545		BooleanT		15
Bit_15	545		BooleanT		15
Bit_14	545		BooleanT		15
Bit_10	545		BooleanT		15

Parameter overview

Parameter	Index	Subindex	Type	Factory setting	Page
Bit_9	545		BooleanT		15
Bit_8	545		BooleanT		15
Bit_1	545		BooleanT		15
Bit_0	545		BooleanT		15
Param configuration fault	546		UIntegerT (32 Bit) [10]	0 (OK)	16
uni.P	551		UIntegerT (8 Bit)	0 (bar)	7
Hi.P	560		IntegerT (16 Bit)		11
Lo.P	561		IntegerT (16 Bit)		11
Hi.T	562		IntegerT (16 Bit)		11
Lo.T	563		IntegerT (16 Bit)		11
S.On	570		UIntegerT (8 Bit)	0 (OFF)	11
S.Tim	571		UIntegerT (8 Bit)	2 (3 min)	12
S.PRS	572		IntegerT (16 Bit)	8000	12
S.TMP	573		IntegerT (16 Bit)	4250	12
ou2	590		UIntegerT (8 Bit)	1 (I / Analog signal 4…20 mA)	12
ASP2 - PRES	630		IntegerT (16 Bit)	0	12
AEP2 - PRES	631		IntegerT (16 Bit)	16000	12
uni.T	841		UIntegerT (8 Bit)	0 (°C)	7
coF	5001		IntegerT (16 Bit)	0	12
HIPS - PRES	5003		IntegerT (16 Bit)	16000	16
HIPC	5004		UIntegerT (32 Bit)	0	16
HITS - TEMP	6009		IntegerT (16 Bit)	11000	16
HITC	6010		UIntegerT (32 Bit)	0	16
MDC Descr	16512		RecordT (88 Bit)		13
Lower limit	16512	1	IntegerT (32 Bit)	-1000 (-1000)	13
Upper limit	16512	2	IntegerT (32 Bit)	16000 (16000)	13
Unit code	16512	3	UIntegerT (16 Bit)	1130 (Pa)	13
Scale	16512	4	IntegerT (8 Bit)	2 (2)	13
MDC 2 Descr	16513		RecordT (88 Bit)		13
Lower limit	16513	1	IntegerT (32 Bit)	-2500 (-2500)	13
Upper limit	16513	2	IntegerT (32 Bit)	11000 (11000)	13
Unit code	16513	3	UIntegerT (16 Bit)	1001 (°C)	13
Scale	16513	4	IntegerT (8 Bit)	-2 (-2)	13

Basic settings

uni.P	Index 551	Subindex 0	UIntegerT (8 Bit)	ReadWrite
Selection of pressure unit.				
Factory setting	**0**	**(bar)**		
Value range	0 1 2	(bar) (MPa) (psi)		

uni.T	Index 841	Subindex 0	UIntegerT (8 Bit)	ReadWrite
Selection of temperature unit.				
Factory setting	**0**	**(°C)**		
Value range	0 1	(°C) (°F)		

System Command

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

System Command information:
- Address: Index 2, Subindex 0
- Datatype: UInteger (8 Bit)
- AccessRight: Write Only

#	Text	Description
1	Upload Start	Start block parameter upload
2	Upload End	End block parameter upload
3	Download Start	Start block parameter download
4	Download End	Stop block parameter download
5	Store	Finalize block parameterization and start Data Storage
6	Break	Cancel block parameterization
129	Application Reset	The parameter of the technology-specific application are set to default values. Identification parameter remain unchanged. An upload to the data storage of the master will be executed, if activated in the port configuration of the master.
131	Back-to-box	The parameter of the device are set to factory default values and communication will be inhibited until the next power cycle. Note: Directly detach the device from the master port!
161	Reset [Hi.P] and [Lo.P] memory	
162	Reset [Lo.P] memory	
163	Reset [Hi.P] memory	
165	Reset [Hi.T] and [Lo.T] memory	
166	Reset [Lo.T] memory	
167	Reset [Hi.T] memory	
169	Reset overload counter [HIPC]	
170	Reset COF	
172	Reset overload counter [HITC]	

System Command

173	Reset Event history
174	Reset Event counter
176	Start simulation
177	Stop simulation
194	Teach COF
205	Teach ASP2
206	Teach AEP2
222	Flash On
223	Flash Off
240	IO-Link 1.1 system test command 240, Event 8DFE appears
241	IO-Link 1.1 system test command 241, Event 8DFE disappears
242	IO-Link 1.1 system test command 242, Event 8DFF appears
243	IO-Link 1.1 system test command 243, Event 8DFF disappears

Identification

Vendor Name	Index 16	Subindex 0	StringT (19 Byte)	ReadOnly
The vendor name that is assigned to a Vendor ID.				
Factory setting	**ifm electronic gmbh**			

Vendor Text	Index 17	Subindex 0	StringT (11 Byte)	ReadOnly
Additional information about the vendor.				
Factory setting	**www.ifm.com**			

Product Name	Index 18	Subindex 0	StringT (6 Byte)	ReadOnly
Complete product name.				

Product ID	Index 19	Subindex 0	StringT (6 Byte)	ReadOnly
Vendor-specific product or type identification (e.g., item number or model number).				

Product Text	Index 20	Subindex 0	StringT (26 Byte)	ReadOnly
Additional product information for the device.				
Factory setting	**Electronic pressure sensor**			

Serial Number	Index 21	Subindex 0	StringT (12 Byte)	ReadOnly
Unique, vendor-specific identifier of the individual device.				

Hardware Revision	Index 22	Subindex 0	StringT (2 Byte)	ReadOnly
Unique, vendor-specific identifier of the hardware revision of the individual device.				

Firmware Revision	Index 23	Subindex 0	StringT (5 Byte)	ReadOnly
Unique, vendor-specific identifier of the firmware revision of the individual device.				

Application-specific Tag	Index 24	Subindex 0	StringT (32 Byte)	ReadWrite
Possibility to mark a device with user- or application-specific information.				
Factory setting	***			

Function Tag	Index 25	Subindex 0	StringT (32 Byte)	ReadWrite
Possibility to mark a device with function-specific information.				
Factory setting	***			

Location Tag	Index 26	Subindex 0	StringT (32 Byte)	ReadWrite
Possibility to mark a device with location-specific information.				
Factory setting	***			

Parameters

dAP.P	Index 510	Subindex 0	UIntegerT (16 Bit)	ReadWrite
Damping of the pressure signal.				
Factory setting	**6**			
Value range [s]	(0 to 9999) * 0.01			

dAA	Index 512	Subindex 0	UIntegerT (16 Bit)	ReadWrite
Response time between process value change and change of the analog output.				
Factory setting	**10**			
Value range [s]	(0 to 9999) * 0.01			

FOU2	Index 532	Subindex 0	UIntegerT (8 Bit)	ReadWrite
[OUT 2] behaviour in case of fault.				
Factory setting	**4**	**(OFF)**		
Value range	2	(On)		
	4	(OFF)		

Hi.P	Index 560	Subindex 0	IntegerT (16 Bit)	ReadOnly
Maximum memory value for pressure.				
Value range [Pa]	(-1000 to 16500) * 100			
	32760	(OL - overload) 0x7FF8		
	32764	(NoData) 0x7FFC		

Lo.P	Index 561	Subindex 0	IntegerT (16 Bit)	ReadOnly
Minimum memory value for pressure.				
Value range [Pa]	(-1000 to 16500) * 100			
	32760	(OL - overload) 0x7FF8		
	32764	(NoData) 0x7FFC		

Hi.T	Index 562	Subindex 0	IntegerT (16 Bit)	ReadOnly
Maximum memory value for temperature.				
Value range [°C]	(-3000 to 11500) * 0.01			
	-32760	(UL - underload) 0x8008		
	32760	(OL - overload) 0x7FF8		
	-32762	(cr.UL - critical underload) 0x8006		
	32762	(cr.OL - critical overload) 0x7FFA		
	32764	(NoData) 0x7FFC		

Lo.T	Index 563	Subindex 0	IntegerT (16 Bit)	ReadOnly
Minimum memory value for temperature.				
Value range [°C]	(-3000 to 11500) * 0.01			
	-32760	(UL - underload) 0x8008		
	32760	(OL - overload) 0x7FF8		
	-32762	(cr.UL - critical underload) 0x8006		
	32762	(cr.OL - critical overload) 0x7FFA		
	32764	(NoData) 0x7FFC		

S.On	Index 570	Subindex 0	UIntegerT (8 Bit)	ReadOnly
Simulation state.				
Factory setting	**0**	**(OFF)**		
Value range	0	(OFF)		
	1	(On)		

Parameters

S.Tim	Index 571	Subindex 0	UIntegerT (8 Bit)	ReadWrite
Simulation duration.				
Factory setting	**2**	**(3 min)**		
Value range	0	(1 min)		
	1	(2 min)		
	2	(3 min)		
	3	(4 min)		
	4	(5 min)		
	5	(10 min)		
	6	(15 min)		
	7	(20 min)		
	8	(30 min)		
	9	(45 min)		
	10	(60 min)		

S.PRS	Index 572	Subindex 0	IntegerT (16 Bit)	ReadWrite
Simulation of pressure.				
Factory setting	**8000**			
Value range [Pa]	(-1000 to 16500) * 100			
	32760	(OL - overload) 0x7FF8		
	32764	(Err) 0x7FFC		

S.TMP	Index 573	Subindex 0	IntegerT (16 Bit)	ReadWrite
Simulation of temperature.				
Factory setting	**4250**			
Value range [°C]	(-3000 to 11500) * 0.01			
	32762	(cr.OL - critical overload) 0x7FFA		
	32760	(OL - overload) 0x7FF8		
	32764	(Err) 0x7FFC		
	-32760	(UL - underload) 0x8008		
	-32762	(cr.UL - critical underload) 0x8006		

ou2	Index 590	Subindex 0	UIntegerT (8 Bit)	ReadWrite
Output configuration [OUT 2].				
Factory setting	**1**	**(I / Analog signal 4...20 mA)**		
Value range	16	(OFF / Output Off)		
	1	(I / Analog signal 4…20 mA)		

ASP2 - PRES	Index 630	Subindex 0	IntegerT (16 Bit)	ReadWrite
Analogue start point 2 / Pressure. Measured value for the minimum value of the analogue signal at the output 2 / Pressure. For details, see operating manual.				
Factory setting	**0**			
Value range [Pa]	(-1000 to 14000) * 100			

AEP2 - PRES	Index 631	Subindex 0	IntegerT (16 Bit)	ReadWrite
Analogue end point 2 / Pressure. Measured value for the maximum value of the analogue signal at the output 2 / Pressure. For details, see operating manual.				
Factory setting	**16000**			
Value range [Pa]	(1000 to 16000) * 100			

coF	Index 5001	Subindex 0	IntegerT (16 Bit)	ReadWrite
Zero-point calibration (Calibration offset).				
Factory setting	**0**			
Value range [%]	(-500 to 500) * 0.01			

Parameters

MDC Descr	Index 16512	Subindex 0	RecordT (88 Bit)	ReadOnly
Description of the measurement data channel.				
Lower limit		Subindex 1	IntegerT (32 Bit)	
Lower value measurement range				
Factory setting	**-1000**	**(-1000)**		
Value range	-1000	(-1000)		
Upper limit		Subindex 2	IntegerT (32 Bit)	
Upper value measurement range				
Factory setting	**16000**	**(16000)**		
Value range	16000	(16000)		
Unit code		Subindex 3	UIntegerT (16 Bit)	
Unit code of the measurement data				
Factory setting	**1130**	**(Pa)**		
Value range	1130	(Pa)		
Scale		Subindex 4	IntegerT (8 Bit)	
Range shifting (10 scale)				
Factory setting	**2**	**(2)**		
Value range	2	(2)		

MDC 2 Descr	Index 16513	Subindex 0	RecordT (88 Bit)	ReadOnly
Description of the 2nd measurement data channel.				
Lower limit		Subindex 1	IntegerT (32 Bit)	
Lower value measurement range				
Factory setting	**-2500**	**(-2500)**		
Value range	-2500	(-2500)		
Upper limit		Subindex 2	IntegerT (32 Bit)	
Upper value measurement range				
Factory setting	**11000**	**(11000)**		
Value range	11000	(11000)		
Unit code		Subindex 3	UIntegerT (16 Bit)	
Unit code of the measurement data				
Factory setting	**1001**	**(°C)**		
Value range	1001	(°C)		
Scale		Subindex 4	IntegerT (8 Bit)	
Range shifting (10 scale)				
Factory setting	**-2**	**(-2)**		
Value range	-2	(-2)		

Diagnosis

Device Status	Index 36	Subindex 0	UIntegerT (8 Bit)	ReadOnly
Indicator for the current device condition and diagnosis state.				
Factory setting	**0**	**(Device is OK)**		
Value range	0	(Device is OK)		
	1	(Maintenance required)		
	2	(Out of specification)		
	3	(Functional check)		
	4	(Failure)		

Detailed Device Status	Index 37	Subindex 0	OctetStringT (3 Byte) [11]	ReadOnly
List of all currently pending events in the device.				
Factory setting	**0x00,0x00,0x00**			

Event history	Index 539	Subindex 0	UIntegerT (16 Bit) [20]	ReadOnly
Shows a list of the last occured Events. Events generated by simulation are ignored.				
Factory setting	**0**	**(noEvent)**		
Value range	0	(noEvent)		
	20480	(0x5000)		
	25376	(0x6320)		
	36350	(0x8DFE)		
	36351	(0x8DFF)		
	35872	(0x8C20)		
	35888	(0x8C30)		
	35856	(0x8C10)		
	16912	(0x4210)		
	16928	(0x4220)		
	36059	(0x8CDB)		
	35841	(0x8C01)		

Event counter collection	Index 529	Subindex 0	RecordT (352 Bit)	ReadOnly
When the assigned event occurs, the event counter increments.				
Event counter 0x5000		Subindex 1	IntegerT (32 Bit)	
# Events: Device hardware fault				
Value range	(0 to 2147482880)			
Event counter 0x6320		Subindex 2	IntegerT (32 Bit)	
# Events: Parameter error				
Value range	(0 to 2147482880)			
Event counter 0x8C10		Subindex 3	IntegerT (32 Bit)	
# Events: Process variable range overrun				
Value range	(0 to 2147482880)			
Event counter 0x8C30		Subindex 4	IntegerT (32 Bit)	
# Events: Process variable range underrun				
Value range	(0 to 2147482880)			
Event counter 0x8C20		Subindex 5	IntegerT (32 Bit)	
# Events: Measurement range exceeded				
Value range	(0 to 2147482880)			
Event counter 0x4220		Subindex 6	IntegerT (32 Bit)	
# Events: Device temperature underrun				
Value range	(0 to 2147482880)			
Event counter 0x4210		Subindex 7	IntegerT (32 Bit)	
# Events: Device temperature overrun				
Value range	(0 to 2147482880)			

Diagnosis

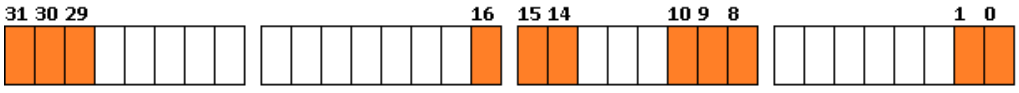
Event counter collection	Index 529	Subindex 0	RecordT (352 Bit)	ReadOnly
Event counter 0x8C01		Subindex 8	IntegerT (32 Bit)	
# Events: Simulation active				
Value range	(0 to 2147482880)			
Event counter 0x8CDB		Subindex 9	IntegerT (32 Bit)	
# Events: Flash sequence active. Device Status = 1 (Maintenance required)				
Value range	(0 to 2147482880)			
Event counter 0x8DFE		Subindex 10	IntegerT (32 Bit)	
# Events: Test Event 1. Device Status = 1 (Maintenance required)				
Value range	(0 to 2147482880)			
Event counter 0x8DFF		Subindex 11	IntegerT (32 Bit)	
# Events: Test Event 2. Device Status = 1 (Maintenance required)				
Value range	(0 to 2147482880)			

Operating hours	Index 542	Subindex 0	IntegerT (32 Bit)	ReadOnly
Counter of the operating hours since delivery.				
Value range [h]	(0 to 2147482880) * 1 2147483644	(NoData) 0x7FFFFFFC		

Active Events	Index 545	Subindex 0	RecordT (32 Bit)	ReadOnly
Bit mask for current pending events.				

Bit offset 31	(0x8DFF)	Test Event 2. Device Status = 1 (Maintenance required)
Bit offset 30	(0x8DFE)	Test Event 1. Device Status = 1 (Maintenance required)
Bit offset 29	(0x8CDB)	Flash sequence active. Device Status = 1 (Maintenance required)
Bit offset 16	(0x8C01)	Simulation active
Bit offset 15	(0x4210)	Device temperature overrun
Bit offset 14	(0x4220)	Device temperature underrun
Bit offset 10	(0x8C20)	Measurement range exceeded
Bit offset 9	(0x8C30)	Process variable range underrun
Bit offset 8	(0x8C10)	Process variable range overrun
Bit offset 1	(0x6320)	Parameter error
Bit offset 0	(0x5000)	Device hardware fault

Value range	true	Event active
	false	Event inactive



Diagnosis

Param configuration fault	Index 546	Subindex 0	UIntegerT (32 Bit) [10]	ReadOnly
Displays the incorrectly set parameters.				
Factory setting	**0**	**(OK)**		
Value range	0	(OK)		
	41353216	(AEP2 - PRES, Index = 631)		
	41287680	(ASP2 - PRES, Index = 630)		
	34865152	(FOU2, Index = 532)		
	327876608	(HIPS - PRES, Index = 5003)		
	393805824	(HITS - TEMP, Index = 6009)		
	37486592	(S.PRS, Index = 572)		
	37552128	(S.TMP, Index = 573)		
	37421056	(S.Tim, Index = 571)		
	327745536	(coF, Index = 5001)		
	33554432	(dAA, Index = 512)		
	33423360	(dAP.P, Index = 510)		
	38666240	(ou2, Index = 590)		
	36110336	(uni.P, Index = 551)		
	55115776	(uni.T, Index = 841)		

HIPC	Index 5004	Subindex 0	UIntegerT (32 Bit)	ReadOnly
Pressure overload counter.				
Factory setting	**0**			
Value range	(0 to 4294967295) * 1			

HIPS - PRES	Index 5003	Subindex 0	IntegerT (16 Bit)	ReadWrite
Configuration of pressure overload counter switch point.				
Factory setting	**16000**			
Value range [Pa]	(-1000 to 16000) * 100			

HITC	Index 6010	Subindex 0	UIntegerT (32 Bit)	ReadOnly
Temperature overload counter.				
Factory setting	**0**			
Value range	(0 to 4294967295) * 1			

HITS - TEMP	Index 6009	Subindex 0	IntegerT (16 Bit)	ReadWrite
Configuration of temperature overload counter switch point.				
Factory setting	**11000**			
Value range [°C]	(-2500 to 11000) * 0.01			

Internal temperature	Index 543	Subindex 0	IntegerT (16 Bit)	ReadOnly
Current internal temperature of the device.				
Value range [°C]	(-25 to 125) * 0.01			
	32760	(OL - overload) 0x7FF8		
	32764	(NoData) 0x7FFC		
	-32760	(UL - underload) 0x8008		

Events

Code	Device status	PQ *	Class	Name	Description
0x4210 16912d	2 (Out of specification)	Valid	Warning	Device temperature overrun	Clear source of heat
0x4220 16928d	2 (Out of specification)	Valid	Warning	Device temperature underrun	Insulate device
0x5000 20480d	4 (Failure)	Invalid	Error	Device hardware fault	Exchange device
0x6320 25376d	3 (Functional check)	Invalid	Error	Parameter error	Check datasheet and values
0x8C01 35841d	3 (Functional check)	Valid	Warning	Simulation active	Check operating mode
0x8C10 35856d	2 (Out of specification)	Valid	Warning	Process variable range overrun	Process data uncertain
0x8C20 35872d	3 (Functional check)	Valid	Error	Measurement range exceeded	Check application
0x8C30 35888d	2 (Out of specification)	Valid	Warning	Process variable range underrun	Process data uncertain
0x8CDB 36059d	1 (Maintenance required)	Valid	Warning	Flash sequence active. Device Status = 1 (Maintenance required)	Deactivate flash sequence
0x8DFE 36350d	1 (Maintenance required)	Valid	Warning	Test Event 1. Device Status = 1 (Maintenance required)	Event appears by setting index 2 to value 240, Event disappears by setting index 2 to value 241
0x8DFF 36351d	1 (Maintenance required)	Valid	Warning	Test Event 2. Device Status = 1 (Maintenance required)	Event appears by setting index 2 to value 242, Event disappears by setting index 2 to value 243

Events are reported by the device itself to signal irregular device states.
PQ* = Process data quality.

Error types

Code	Name	Description
0x8000 32768d	Device application error - no details	Service was denied by the technology-specific application. No detailed root-cause information is available.
0x8011 32785d	Index not available	Read or write access attempt to a non-existing index.
0x8012 32786d	Subindex not available	Read or write access attempt to a non-existing subindex of an existing index.
0x8020 32800d	Service temporarily not available	Parameter not accessible due to the current state of the technology-specific application.
0x8021 32801d	Service temporarily unavailable - local control	Parameter not accessible. The device is currently in an ongoing, locally controlled operation.
0x8022 32802d	Service temporarily unavailable - device control	Parameter not accessible. The technology-specific application is currently in a remotely triggered operation.
0x8023 32803d	Access denied	Write access to a read-only parameter or read access to write-only parameter.
0x8030 32816d	Parameter value out of range	Written parameter value is outside of the permitted value range.
0x8031 32817d	Parameter value above limit	Written parameter value is above its specified value range.
0x8032 32818d	Parameter value below limit	Written parameter value is below its specified value range.
0x8033 32819d	Parameter length overrun	Written parameter is longer than specified.
0x8034 32820d	Parameter length underrun	Written parameter is shorter than specified.
0x8035 32821d	Function unavailable	Written command is not supported by the technology-specific application.
0x8036 32822d	Function temporarily unavailable	Written command is unavailable due to the current state of the technology-specific application.
0x8040 32832d	Invalid parameter set	Written single parameter value collides with other existing parameter settings.
0x8041 32833d	Inconsistent parameter set	Parameter set inconsistencies at the end of block parameter transfer. Device plausibility check failed.
0x8082 32898d	Application not ready	Read or write access denied. The technology-specific application is temporarily unavailable.

Error types are used for the ISDU response. Values unequal to '0' indicate the cause of a failed ISDU read or write procedure.

ErrorTypes



The table shows all IO-Link ISDU error codes.
The device does not need to support all listed error types.