## XUB5000 / XUB6000 / XUN5000 / XUN6000

### No-Link data table

GENERAL INFORMATION						
Communication mode IO-Link	COM 2					
Min. cycle time	2.3 ms					
SIO mode	Supported					
Length process data	8 Bit					
Vendor ID	297 / 0x0129					
Device ID	102 / 0x000066					
Data storage	Supported					
Specification IO-Link	1.1.2					

## PROCESS DATA

SENSOR PROFILE							
Byte 0							
7	6	5	4	3	2	1	0
х	х	х	х	х	х	х	Switching Q1

### **IDENTIFICATION** DATA Index (dec/hex) Access Data Length Sub-Default value Value Range **Object Name** Description index type 16 / 0x10 R StringT 64 Bytes 0 Schneider Electric Vendor Name Manufacturer name 17 / 0x11 0 https://www.tesen-Vendor Text Manufacturer website sors.com/ 18 / 0x12 0 XUB5APYNM12 Product Name The parameter Product Name contains the complete product name (Commercial XUB5APYNM12 XUB5BPYNM12 XUB6APYNM12 XUB6APYWM12 XUB6BPYNM12 XUB6BPYNM12 XUN5APYNM12 XUN5APYNM12 Reference). The parameter Product ID contains the vendor specific product or type 19 / 0x13 0 Product ID identification of the device XUN6APYNM12 0 20/0x14Proximity sensors Product Text The parameter Product Text contains additional product information for the device. 22 / 0x16 0 Unique, vendor-specific identifier of the hardware revision of the individual device Hardware Revision (For example: HW-V1.0). 23 / 0x17 0 Firmware Revision Unique, vendor-specific identifier of the firmware revision of the individual device (For example: FW-V1.0). 24 / 0x18 R/W StringT 32 Bytes Application The parameter Application Specific Tag is dedicated for the user application. It 0 Specific Tag can be used as a "tag function" (role of the Device) or a "tag location" (location of the Device). SYSTEM COMMAND Index Access<sup>(1)</sup> Data Length Sub-Default value Value Range Object Name Description (dec/hex) type index 2/0x02 w UIntegerT 8 Bit 0 65 System command 65 = Launch the teach process (see feedback in index 59) 130 130 = Restore factory settings **DETECTION PARAMETERS (1/2)** Data Default value Value Range Index Lenath Sub Obiect Name Description Access (dec/hex type Teach in Status The parameter "Teach-in Status" provides feedback on the status and the results of the teach-in process (SP1 Single Value Teach / index 2). This status information is split into "Teach State" and "Teach Flags". 59 / 0x3B R 1 Byte 0 RecordT Teach-in status Teach flag for SP2 TP2 (Only for XUe8 BGS) BooleanT 1 Bit 1 0 false = Teachpoint x SP2 TP2 not taught or not successful true = Teachpoint x successfully taugh 1 Bit false = Teachpoint x Teach flag for SP2 TP1 (Only for XUe8 BGS) 0 SP2 TP1 BooleanT 2

not taught or not successful true = Teachpoint x successfully taugh

false = Teachpoint x

not taught or not successful true = Teachpoint x successfully taugh

false = Teachpoint x not taught or not successful true = Teachpoint x successfully taugh

0 = IDLE 1 = SP1 SUCCESS 2 = SP2 SUCCESS 3 = SP12 SUCCESS

3 = SP12 SUCC 4 = WAIT FOR COMMAND 5 = BUSY 6 = RESERVED 7 = ERROR

0 = External 255 = IO-Link

0...100

SP1 TP2

SP1 TP1

Teach State

BDC1 setpoints setting:

IO-Link/External Selection

Setpoints of BDC1

Setpoint 1

Setpoint 2

(1) R = Read / W = Write
BQT5550100 00
11 - 2024

R/W

R/W

81 / 0x51

60 / 0x3C

2 Bytes

1 Bit

1 Bit

BooleanT

BooleanT

UIntegerT

UIntegerT 1 Byte

RecordT

UIntegerT UIntegerT 1 Bit

1 Bit

4 Bits

3

4

5

0

0

2

0

0

0

0

0

Detection point



Teach flag for SP1 TP2 (Only for XUe8 BGS)

succeeded (Only for XUe8 BGS) 4 = WAIT FOR COMMAND (Only for XUe8 BGS)

5 = BUSY (Only for XU+8 BGS)

BDC1 Setpoint 2 (Only for XUe8 BGS)

0 = IDLE, teach not yet done 1 = SP1 SUCCESS, the teach process for the detection point 1 is succeeded 2 = SP2 SUCCESS, the teach process for the detection point 2 is

succeeded (Only for XUe8 BGS) 3 = SP12 SUCCESS, the teach process for the detection point 1 + 2 is

6 = RESERVED (Only for XU•8 BGS) 7 = ERROR, If no object in front of the sensor / out of the sensing range / Object too close

Define the way to configure the BDC1 setpoints (by IO-Link or externally).

The following 3 parameters define the detection point for BDC1 BDC1 Setpoint 1 (set in "IO-Link" first in Index 81)

Teach flag for SP1 TP1

Teach State result

# XUB5••• / XUB6••• / XUN5••• / XUN6•••

DETECTION PARAMETERS (2/2)								
Index (dec/hex)	Access <sup>(1)</sup>	Data type	Length	Sub- index	Default value	Value Range	Object Name	Description
Detection signal								
100 / 0x64	R	Float321	4 Bytes	0	-	0.1 100	Read energy quantity	Read the energy quantity received to ensure a reliable detection.
101 / 0x65	R	String	1 Byte	0	-	0 = Not Enough 1 = Limit 2 = Accetable 3 = Excellent	Energy quantity result	Provides a teedback on the energy quantity received by levels: • 0 = Not Enough (energy quantity between 0.0 and 1.5) • 1 = Limit (energy quantity between 1.5 and 2.5) • 2 = Acceptable (energy quantity between 2.5 and 5.0) • 3 = Excellent (energy quantity between 5.0 and 100)
00 / 050	DAM	Lille to a so T	4 D: 4-	0	055	Potentio	meter setting	
80 / 0x50	R/W	Unteger	1 Byte	0	255	0 = Lock 255 = Unlock	Product settings lock	Lock all the settings of the product (potentiometer value and the input wires value).
65 0x55	R/W	Untegeri	Т Буце	0	-	0100	Read target position	100% means maximum position) to detect the target. The value depends on the color & material of the object.
								If it is less to 1% the teaching will be in error 7. After a teach success, the value read from this index should correspond to "BDC1
								Setpoint 1", index 60 sub-index 1.
		25						
Index	Access <sup>(1)</sup>	Data	Lenath	Sub-	Default value	Value Range	Object Name	Description
(dec/hex)		type	g	index		Read or		
103 / 0x67	R	UIntegerT	4 Bytes	0	-	0 2 <sup>32</sup> -1	Operating Hours	Number of operating hours. The data can only be read; no reset possible
102 / 0x66	R	UIntegerT	4 Bytes	0	-	0 2 <sup>32</sup> -1	Change State Number	Number of output change status (On & Off). Passing a target increases the object value twice.
107 / 0x6B	W	UIntegerT	1 Byte	0	-	255 = Reset	Reset Change of States Counter	Reset the change of states counter to 0.
FUNCTION		ETERS						
Index (dec/hex)	Access <sup>(1)</sup>	Data type	Length	Sub- index	Default value	Value Range	Object Name	Description
						Timer c	onfiguration	
90 / 0x5A	R/W	UIntegerT	1 Byte	0	0	0 = No Timer 1 = On/Off Delay 2 = Rising Edge Delayed One Shot 3 = Falling Edge	Timer Selection	Defines which Timer Function should be applied on the output.
91 / 0x5B	R/W	UIntegerT	2 Bytes	0	0	Oms, 5ms, 10ms, 25ms, 50ms, 100ms,	T1	Defines the value of T1 for Timer Function.
92 / 0x5C	R/W	UIntegerT	2 Bytes	0	0	250ms, 500ms, 1000ms, 2500ms, 5000ms, 10000ms	Т2	Defines the value of T2 for Timer Function.
						25000ms		
44/0-05		A	Mariahla	0	0.01 0.01 0.00	Othe	r function	Mandatan fa Oaman Dafila activation based in diffuse and a
14 / UXUE	ĸ	bytes StringT	Variable	U		-	PDinput-Descriptor	mandatory for Common Profile, not implemented in diffuse sensor.
	ARAME	TERS						
Index (dec/hex)	Access <sup>(1)</sup>	Data type	Length	Sub- index	Default value	Value Range	Object Name	Description
						Output behaviour		
71 / 0x47	R/W	UIntegerT	1 Byte	0	0	0 = External 255 = IO-Link	BDC1 Switchpoint logic setting: IO-Link / External Selection	Define the way to configure NO/NC function (by IO-Link or through IN wire).
61 / 0x3D	R/W	RecordT	4 Bytes	0	-	-	Switch Parameters of BDC1	The following 3 parameters define the switching behavior of a BDC1 (output 1)
		UIntegerT	1 Byte	1	0	0 = Not inverted (NO) 1 = Inverted (NC)	Switchpoint logic	The parameter "Switchpoint logic" defines whether the switching information is transmitted in inverted or not inverted manner. Select the output function between NO (Normally Open) and NC (Normally Closed). Select first Index 71=IO-link.
		UIntegerT	1 Byte	2	1	0 = Deactivated	Switchpoint mode	Select the detection mode:
						1 = Single point mode 2 = Window mode 3 = Two points mode		<ul> <li>1= Single point mode is selected when one point of detection is needed</li> <li>2 = Window mode is selected when detection is needed between two detection points called near point and far point (Only for XU●8 BGS).</li> <li>3 = Two points mode (Only for XU●8 BGS)</li> </ul>
		UIntegerT	2 Byte	3	0	0	Switchpoint hysteresis	The parameter "Switchpoint hysteresis" defines whether a hysteresis is associated with the Setpoints SP1 and SP2. The layout of the hysteresis in respect to SP1 and SP2, for example symmetrical, right-aligned, or left-aligned, etc. is manufacturer/vendor specific. It cannot be defined in the FunctionClass. The interpretation of the hysteresis values (relative or absolute) is also manufacturer/vendor specific.(Only for XU•8 BGS)
70/046	DAA	L IIntogarT	1 Buto	0	128	Output configurati	Output function time	Define the output function type of the senser (NIDN / DND)
1010X40		Unitegeri	г Буце		120	128 = AUTODETECT 255 = PNP		Denne the output function type of the sensor (NPN / PNP).
40 / 0x28	R	UIntegerT	1 Byte	0	-	0 = OFF 1 = ON	PD Input	Last valid process input data of the device.
58 / 0x3A	R/W	UIntegerT	1 Byte	0	0	0	Teach-in channel	The parameter "Teach-in Channel" allows addressing the particular BDC or a set of BDCs for which the teach-in commands apply. A maximum of 128 BDCs can be addressed. (Only for XU $\bullet$ 8 BGS)

