Your Global Automation Partner



TBPN-L1-FDIO1-2IOL Safety block I/O-module

Getting Started



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1 Using Turck Safety Configurator

1.1 Downloading the software



Download the Turck safety Configurator from the Turck homepage here: www.turck.de.

1.2 Installing the software

➤ Unpack the downloaded ZIP-archive and start the installation via "install.exe".
 ➤ The setup assistant leads through the installation.

1.3 Integrate Turck Safety Configurator in TIA/Step7

The Turck Safety Configurator can be started directly out of TIA-Portal/Step7-software. ➤ Select the option "register in TIA/step7" in the installation step "Custom Setup".

H TURCK Safety Configura	itor 3.2.72.178 Setup 🚽 🗖 🗙
Custom Setup Select the way you want features to be	e installed.
Click the icons in the tree below to char	ige the way features will be installed.
TURCK Safety Configure Full version Software Manu VDP Socket Proxy Option standard install X V Option virtual machine	ator als Step 7 hard drive.
	Browse
Re <u>s</u> et Disk <u>U</u> sage	Back Next Cancel

Fig. 1: Register the TSC in TIA/Step7

1.4 Licensing the software

The licensing is done via Coupon code.

Enter the coupon code on the Turck Homepage following this link: http://www.turck.de/en/turck-safety-configurator-license-6174.php.

If the coupon code is missing, please order a coupon code via E-mail under the following E-mail address:

TM-BWSoftwareSupport@turck.com

- 1.4.1 Software incensing for virtual machines (VM)
 - Enter the coupon code on the Turck Homepage following this link: http://www.turck.de/en/turck-safety-configurator-license-vm-6177.php.
 - ➤ If the coupon code is missing, please order a coupon code via E-mail under the following E-mail address:

TM-BWSoftwareSupport@turck.com

1.5 Starting the software

- > Start the software via the program icon on the desktop.
- → The TURCK Safety Configurator starts with the Start Assistant, which will lead through the first steps after program start.

2 Configuring with Turck Safety Configurator

2.1 Setting up a new configuration

Select "New configuration" in the Start Assistant and create a new configuration for the safety monitor.

Options			
O <u>D</u> iagnosti	cs		
New cont	iguration		
Open cor	figuration		
O Load con	figuration from safe	ety monitor	
Show dialog	on start-up		
	OK	Cancel	Help

Fig. 2: Start Assistant

2.1.1 Adapting the monitor settings

The dialog box "Monitor settings" is used to enter the basic data for the new configuration.

Monitor settings	×
Monitor information Local I/O	
Configuration title	
Test	
Release code	
- Function range	
TBPN-Lx-FDIO1-2IOL	
TBIP-Lx-FDIO1-2IOL	
Manitar detection	
Monitor detection	Tabarfa an
Monitor type has not been detected!	interrace
	OK Cancel Hele

Fig. 3: Monitor settings

- > Enter the configuration title in the register tab "Monitor information".
- Select the device type of the safety module (safety monitor) in the section "Function range".

➤ If no monitor is detected, open the settings for the interface to the connected device via the "Interface..."-button and enter the IP address of the connected device under "UDP".

Interface configuration		×
 ○ Offline ● UDP 	192 . 168 . 1 . 111	
	OK Cancel	Help

Fig. 4: Interface configuration

► If the IP-address of the device is not known, search the network via the "..."-button.

Select the device from the list and close with "OK".

arch IP	Address						×
Index	IP Address	MAC Address	Network	Name			Search
1	192.168.1.111	00:07:46:80:00:02	192.168.1.100/24	TBPN-L1-FDIO1-2I			Elash LED
							S <u>e</u> tup
					0%	Consel	Ush
					UK	Cancel	Help

Fig. 5: Search IP address



onitor information Local I/O	
Configuration title	
est	
Release code	
Function range	
TBPN-Lx-FDIO 1-2IOL	
◯ TBIP-Lx-FDIO1-2IOL	
Monitor detection	
Monitor type has been detected.	Interface

→The safety module (monitor type) is detected, the connection is established.

Fig. 6: Device (monitor type) detected

2.2 Set up a standard configuration

The register tab "Local I/O" in "Monitor settings" show the standard configuration for the local device in- and outputs.

nitor information	Local I/O					
Terminal	Safety sourcing output	Safety sinking output	Safety Input	Safety antivalent input	Safety electronical input	Standard Input
FDI 0/1			۲	0	0	0
FDI 2/3			۲	0	0	0
FSO 0	۲					
FSO 1	۲					
FDX 4/5	۲	0	0	0	0	0
FDX 6/7	۲	0	0	0	0	0

Fig. 7: Standard configuration of the local I/O

➤ Close the dialog box "Monitor settings" by pressing "OK".

→The standard configuration is created.



2.2.1 Standard configuration

Outputs:

For each device output, which means, for the two internal safety outputs FSO0 and FSO1 as well as for the two SIL3-outputs FDX4/5 and FDX6/7 one release circuit (OSSD 1 - OSSD 4) is created. The outputs are automatically assigned to the first four output bits of the F-CPU.

Inputs:

Additionally, one release circuit (63. OSSD and 64. OSSD) is created for each of the two SIL3-inputs (FDI0/1 an FDI2/3). The inputs are also automatically assigned to the first two input bits of the F-CPU.



Fig. 8: Release circuits (OSSDs) of the standard configuration

2.3 Checking the configuration

The Turck Safety Configurator checks the created configuration for logical errors, which meas, the logical wiring of the single components in the release circuits is checked. The configuration check does not consider double allocation etc..

→ Start the check using the "Check configuration" -button.

2.4 Loading the configuration into the safety module.

- > Stop the safety module using the "Stop"-button.
- ➤ Download the configuration created in the software to the device by using the button "Send configuration" → PC -> Monitor".

Configurator for safety monit	or - [Test] - []			- 🗆 ×
New Tile window horizontally *	Start diagnostics *	Start Monitor operations *	PC -> Context Monitor * help *	7
Window		Monitor	Monitor -> PC	^
_	- × Ø	FDX 6/7 Stop category	<u>₽</u> C -> Monitor	×
&	FSO 0 5	10-4 Output F-CPU" [2] [#0-4] - Output F-CPU	Automatic start#	Send configuration

Fig. 9: Send configuration "PC->Monitor"

> Enter the password for the configuration.

During the first download of a configuration to the device, the standard password "SIMON" has to be changed.

NOTE

The default password for the safety module is "SIMON". If the device is reconfigured, a new password has to be assigned. This password, must be known only to the responsible authorized safety representative.

2.4.1 Change password

Enter a new password for the application in the "Password dialog".

Enter passv	vord:	

Enter new p	bassword:	

Repeat nev	v password:	

Fig. 10: Entering a new password.



2.5 Checking the configuration

- Confirm the "Information" dialog with "OK" and confirm the configuration validation in the dialog box "Configuration validation".
- > Enter the name of the authorized person who is in charge of the validation and enter a password.

0000	************					0	^
0001	CONFIGURATION	Configuration valida	tion			1	
0002	Ident: "Test	Conliguration valida	luon	*		2	
0003	***********				*******	3	
0004	Monitor Secti	I ensure	e that I will check the	2		4	
0005	**********	plainte	plaintext log of the monitor		*********	5	
0006	Monitor Versi	and the	and the functionality of the			6	
0007	Config Struct	con	nected sensors.			7	
0008	PC Version:					8	
0009	Download Time					9	
0010	Not Validated	Enter your name:				0	
0011	Diag Freeze:	Enter your numer				1	
0012	Error Unlock:	Turck				2	
0013	***********	1000			********	3	
0014	Device Sectio	Enter password:				4	
0015	**********				*******	5	
0016	Number of Dev					6	
0017						7	
0018	Index:		OK	Cancel		8	
0019	Type:					9	
0020	Subtype: no	Jouroup occo				0	
0021	Subtype: no	local acknowledge				1	Y
<						>	

Fig. 11: Configuration release

The configuration log is part of the safety documentation of the machine.

Copy the plain text log to a text editor, save, print and archive it.

or

Save the configuration log as text file via "Monitor operations → configuration log → save as...", print and archive it.

NOTE

Chapter 5.8 of the software's online help contains a detailed description of the structure of the configuration log.



Fig. 12: Release the configuration

NOTE

 Closing the dialog box with "Yes" activates the protective operation of the device (safety monitor). The device is started.

→After the configuration release, the device is in diagnostics mode.



The CODE (in this example 3925) serves as CRC which has to be entered in the PROFIsafe PLC software **Setting the F_parameters (page 28)**.

2.5.1 Loading the diagnostics configuration

If the diagnostics are activated, the TSC shows the state of the safety I/Os.



Fig. 13: Released configuration, diagnostics configuration loaded

2.6 Customize the configuration

The standard configuration in the Turck Safety Configurator can be customized in order to meet the requirements of different applications.

- 2.6.1 Customizing a standard application (preliminary considerations):
 - 1 What is needed?
 - Definition of amount and type of the required in- and outputs
 - Which components are used for the safety function:
 - electromechanical components,
 - electric components,
 - dual channel switching,
 - single channel switching,
 - antivalent switching,
 - components with semiconductor OSSD output.
 - 2 Where will the components be placed??



All "yellow" M12-connectors on the left side of the TBPN-L1-FDIO1-2IOL are designed for connecting safety components.

In the standard configuration, the two lower M12-connectors (C2 and C3) are configured as dual channel SIL3-outputs. However, depending on the application, they can be used as SIL3-inputs. In total, up to four dual channel safety related SIL3-inputs can be connected to the device.

Possible input configurations:



Possible output configurations:

- PP-switching
- PM-switching



2.6.2 Set up an own configuration

➤ Adapt the standard configuration of the safety channels in the Turck Safety Configurator under "Monitor settings → Local I/O".

nitor informatio	on Local I/O					
Terminal	Safety sourcing output	Safety sinking output	Safety Input	Safety antivalent input	Safety electronical input	Standard Input
FDI 0/1			0	0	۲	
FDI 2/3			۲	0	0	
FSO 0 FSO 1	•					
FDX 4/5	0	0	۲	0	0	0
FDX 6/7	۲	0	0	0	0	0

Fig. 14: Customized configuration of the local I/O

➤ Close the dialog box with "OK".

→ The configuration change is done.

→ The software generates the new release circuits (OSSDs) if the following dialog box is closed with "yes".



Again, the PROFIsafe in- and output bits are automatically assigned.





New configuration (assignment of release circuits):

62. OSSD (new release circuit for the input)
64. OSSD
63. OSSD
4. OSSD
3. OSSD (no longer necessary, will be deleted, see Deleting OSSDs (page 15)
2. OSSD
1. OSSD

2.6.3 Deleting OSSDs

Deleting OSSDs which are no longer necessary is done in the component manager in the software.

 \blacktriangleright Open the component manger via "Display \rightarrow Window \rightarrow Component manager"

<mark>-</mark> D t	∋∎ -			Cr
	Start	Edit Display		
New window	Window *	Tile horizontally + ce library	Zoom in *	Language
Componen	Conf	figuration manage	er	FSO 0 Stop category 0 ->
Device	Print	manager	Str	rg+P
<	Help Additiona	viewer I windows		Show or hide component manager
Device libra	1-1 I	nput F-CPU -> 6	2. OSSD	- Output F-CPU
Mor	1-6 I	nput F-CPU -> 6	3. OSSD	
	1-7 I	nput F-CPU -> 6	4. OSSD	
	FDX	6/7 Stop category	0 -> 4.03	DSSD
I I	FDX	4/5 Stop category	0 -> 3.05	DSSD III
1	FSO	1 Stop category 0	-> 2. OSS	SD FSO 1 Stop category 0 ->
	FSO	0 Stop category 0	-> 1. OSS	SD "0-2 Output F-CPU"
- <u></u>	🗓 Two-har	ided operation		

Fig. 15: Open the component manager

Delete the release circuits (OSSDs) which are no longer used in the component manager (in this example OSSD 3).



Fig. 16: Deleting OSSDs



2.7 Application example

- Emergency shutdown at FDI0/1 at C0 (64. OSSD), page 17
- Light grid (AOPD) at input FDI2/3 at C1 (63. OSSD), page 18
- Non-safety channels at C3 C7 will be switched on permanently via the internal safety outputs (1. and 2. OSSD), page 20
- Output FDX4/5 at C2 (3. OSSD) is switched off if the emergency stop and/or the light grid are activated, page 21
- Output FDX6/7 at C3 (4. OSSD) is switched off, if output FDX4/5 is switched off, page 23. The output state is transferred to the F-CPU.
- Release of the complete safety function via a release bit in the F-CPU (3. OSSD), page 24

2.7.1 Add emergency shutdown in 64. OSSD

The release circuit remains unchanged as it corresponds to the standard configuration.

Emergency shutdown st SIL3-input FDI0/1, assigned to PROFIsafe bit 1-7.



Fig. 17: 64. OSSD with emergency shutdown

2.7.2 Add light grid (AOPD) in 63. OSSD

- > Delete the input element "Emergency shutdown".
- \blacktriangleright Define the input as Safety electronical input in "Monitor settings \rightarrow Local I/O".

		Confi	gurator for safety mo	nitor - [Test] - []				- 0	×
Sart Colt Display Save Open configuration * workspace * File	Output ssignment Check configuration	Undo tion	New Ti window horizor Window	le St ntally - diagno	art <u>S</u> tart ostics - Mon	Monitor E poperations * Mon nitor	C -> Context hitor* Context help * Help		^
Device library # ×	Monitor settings							×	
Monitoring devices	Monitor information	.ocal I/O							
	Terminal	Safety sourcing output	Safety sinking output	Safety Input	Safety antivalent input	Safety electronical input	Standard Input		
(Internet operation	FDI 0/1			۲	0	0			
Module	FDI 2/3			0	0	۲			
Enabling device Key switch Output F-CPU									
🔤 🚶 Standard input	FSO 0	۲							
H & Button	FSO 1	۲							
드 모모 Fieldbus Bit	FDX 4/5	۲	0	0	0	0	0		
Logic devices	FDX 6/7	۲	0	0	0	0	0		
						ОК	Cancel Help		
						0.1	<u>T</u> ch		
· · · · · · · · · · · · · · · · · · ·	CV 12.00E	01 23 00 138A		Interface: 192	2.168.1.111; The safe	ty monitor is running	in configuration operation		

Fig. 18: Define FDI2/3 as Safety electronical input



Select the light grid from the Device library and add it to the release circuit (OSSD) instead of the emergency shutdown.?

The Device library is opened via "Display \rightarrow Window \rightarrow Device library".



Fig. 19: Light grid (AOPD) in 63. OSSD

→ The light grid at FDI2/3 is configured and assigned to PROFIsafe bit 1-6.

2.7.3 Switch on non-safety channels permanently (1. and 2. OSSD)

The non-safety channels at C4 - C7 of the device can be safe switched off via the internal safety outputs FSO0 and FSO1. If they have to be switched on permanently, then FSO0 and FSO1 need a permanent switch-on condition (TRUE). The programming is done in the 1. and 2. OSSD.

- Delete the element "output F-CPU" in both OSSDs (1. and 2. OSSD) and replace it by a TRUE-element from the device library.
- →Both internal outputs are permanently active.



Fig. 20: Permanent activation of FSO0 and FSO1.



2.7.4 Switch off of FDX4/5 if emergency shutdown or light grid activated

Output FDX4/5 at C2 (3. OSSD) has to be switched off as soon as the emergency shutdown at FDI0/1 (64. OSSD) or the light grid at FDI2/3 (63. OSSD) are activated. This means, the state of the OSSD 63 and 64 controls the state of FDX4/5.

- ➤ Delete "Output F-CPU" in the release circuit 3 (3. OSSD).
- Select the block "State of output switching element" from the Device library and place it at the function input. In the dialog box "State of output switching element x" select OSSD 63.



Fig. 21: State of output switching element OSSD 63

Select the block "State of output switching element" from the Device library and place it at the function input. In the dialog box "State of output switching element x" select OSSD 64.



Fig. 22: State of output switching element OSSD 63 and OSSD 64

→ The activation of the emergency shutdown at FDI0/1 or the light grid at FDI2/3 switches off output FDX4/5.



2.7.5 Switch off FDX6/7 at C3 (4. OSSD), if output FDX4/5 is switched.

Output FDX6/7 has to switch off if output FDX4/5 (3. OSSD) switches off.

- ➤ Delete "Output F-CPU" in the release circuit 4 (4. OSSD).
- Select the block "State of output switching element" from the Device library and place it at the function input. In the dialog box "State of output switching element x" select OSSD 3.



Fig. 23: State of output switching element OSSD 3 in OSSD 4

→ The state of 3. OSSD controls the output FDX6/7 in 4. OSSD.

2.7.6 Release of the safety function via a release bit in the F-CPU

The release of the safety function is done using a release bit in the F-CPU. Therefore, an output bit of the F-CPU is assigned to the output function in the 3. OSSD.

Select the element "Output F-CPU" in the Device library and place it at the third input of the function.



Fig. 24: 3. OSSD with release bit from F-CPU

→ After an error, the safety function will only restart if the emergency shutdown as well as the light grid are error free and the release bit in the F-CPU is set.



3 Configuring the device in PROFINET/PROFIsafe (TIA-Portal)

3.1 Adding the device via GSDML

► Install the device's GSDML-file.

► Add the device to the "PROFINET-IO-System (100)".

Siemens - C:\Users\scheuech\Docume	nts\Automatisierung\TBPN_L1\TBPN_L1		_ ¤ ×
Project Edit View Insert Online O	ptio <u>ns T</u> ools <u>W</u> indow <u>H</u> elp		Totally Integrated Automation
📑 🛃 🔚 Save project 📑 🐰 🗐 📲	X ▶) ± (* ± ⊡ Ш Ш Ш Ш ₩ ₽ ₽	Go online 😰 Go offline 🚮 🔃 💽 💽	PORTAL
Project tree	TBPN_LT > Devices & networks		
Devices	Topology view	Network view	Options III
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100 N			▼ Catalog
2 BPN_LI			l≪earch>
Devices & networks	PLC_1 turck-t	əpn-l1-f 📮 🔤 🔫	Filter
PLC_1 [CPU 315F-2 PN/DP]	CPU 315F-2 PN/ TBPN-L1	-FDIO1	ک 🖍 🗠 🖌
👌 🕨 🙀 Common data			Incoders
Documentation settings			▼ III Gateway
Languages & resources	PN/IE_1		Murrelektronik
Card Reader/USB memory			F TURCK
			- Turck
	< III > 100%		▼ III Turck 00
	GSD-Geraet 💽 Properties 🔹	Info 🚺 🗓 Diagnostics 👘 🗖 🗏 🥆	TREN-S
	General IO tags System	onstants Texts	TBPN-L1-FDI01-2I0L
	General		ا لا العام الع
		General	Network Components
			▶ 🗽 Sensors
Details view		Name: GS	PROFIBUS DP
		Author:	▼ Information
Name		Comment:	Device:
		•	
		-	E 19-20100
			TBPN-L1-FDIO1-2IOL
			Article no.: 6814053
		< m >	Version: (GSDML-V2.3-TURCK-TB 🗸
Portal view Overview	🍸 Settings 🚮 Devices & r	ie	

Fig. 25: Adding the TBPN-L1-FDIO1-2IOL to PROFINET

VA	Siemens - C:\Users\scheuech\Docume	nts\Automatisie	rung\TBPN_	L1\TBPN_L1								_ L	J X
<u>P</u> r	oject <u>E</u> dit <u>V</u> iew <u>I</u> nsert <u>O</u> nline O ۇ 🎦 ቭ Save project ا 🐰 🗐 🗊	ptio <u>n</u> s <u>T</u> ools (X St (24 ±	Window He	elp 🖳 🞇 💋 Go onlin	ne 🔊 Go	offline	<u>Å?</u>	. × .		Tot	tally Integrated Automatic POR	n TAI	
	Project tree 🛛 🔳 📢	I I/O > PRO	FINET IO-S	ystem (100): PN/IE	_1 ▶ tu	rck-tbpr	n-I1-fdio	1-2iol _		×	Hardware catalog 🛛 🗐 🛛		
	Devices			Topology view	/ ሐ N	letwork	view	Devic	e view		Options		
		* 🕨 🗖	Device	overview						-			Ha
rks										_	✓ Catalog		rdw
	▼ 📑 TBPN_L1		**	Module	Diel	Rack	Slot	l address	Q ad	-	Search Mi	init	are
	Add new device			 turck-topn-i1-faio1- PN-IO 	2101	0	0 1	2042"		Ĥ			a
	Devices & networks	-		DXP 1		0	1	256 259	256		Filter		al
	PLC_1 [CPU 315F-2 PN/DP]			PROFIsafe-Modul 1		0	2	05	05		 Port configuration 	^	9
Del	Common data					0	з	619	67				
	Documentation settings	-		2IN_1		0	4	324325					8
	Languages & resources			2IN_2		0	5	326327			21N		
	Card Reader/USB memory			Diagnosen_1		0	6	2229			2IN/2OUT		ne
	Care care nearenoss memory	~		IO-Link Events_1		0	7	260323		~	II 2IN/8OUT	_	too
			<		111	<u>^</u>		20.21	>		100T	-	s
		2IN_2 [Modul	e]	Properties	1 Inf	o i 🖣	l Diagn	ostics	78	-	1 32IN		
		General	IO tags	System constan	te T	ovte	1				32IN/32OUT		
		General	io tays	System constan		EXIS					32IN/40UT		as
		General Gatalog inf	ormation		Gene	ral				Ê	32001		ŝ
		Inputs	ormation							_	4IN/320UT		
	✓ Details view	Module param	neters					Name:	2IN 2		4IN/4OUT	~	
		I/O addresses						A			<	•	bra
	Name							Author.	scheue		✓ Information		rieg
					_			Comment:			Device:	^	
					4								
					-			Pack	0				
								NOCK.					
								Slot:	5	-			
					Catal	a lafan	mation						
					Catalo	by mon	nauon .				Article no.:		
										¥	Version:	~	
					<			_	>		<	>	
	Portal view Overview	🍟 Setting	gs o	turck-tbpn-l1									

The TBPN-L1-FDIO1-2IOL appears as a modular slave with eight virtual slots.

Fig. 26: Slots of the TBPN-L1-FDIO1-2IOL

The function of these slots is either defined via GSDML or can only be used for a specific purpose.

Slot	Module/name	Meaning
0	turck-tbpn-l1-fdio1-2iol (default name)	Main module, parameterization of parameters (deactiva- tion of protocols, etc.) which concern the complete device.
X1	PN-IO	Parameterization of PROFINET functions (MRP, etc.)
X1 P1	Port 1	Parameterization of the Ethernet port properties (topol-
X1 P2	Port 2	ogy, connection options, etc.).
1	DXP	DXP-channels of the device (DXP 8, 9, 10, 11, 13, 15).
2	PROFIsafe module	Process data of the safety channels
3	Safety-Status	Status information of the safety channels
4 and 5	IO-Link channels	These slots are used for configuring the 2 IO-Link ports. Assign generic port configurations the IO-Link ports. Select the entries according to the amount of process data of the connected sensor.



Slot	Module/name	Meaning
6	Diagnostics	Optional mapping of the diagnostics (IO-Link and DXP- diagnostics) into the master's process image.
7	IO-Link Events	Optional mapping of the diagnostics (IO-Link and DXP- diagnostics) into the master's process image.
8	Module status	Optional mapping of the diagnostics (IO-Link and DXP- diagnostics) into the master's process image.

NOTE

i

The TBPN-L1-FDIO1-2IOL offers generic port configuration. A specific port configuration with Turck IO-Link devices via device entries in the GSDML is not possible.

3.2 Setting the F_parameters

The device's F_parameters are set for slot 2 "PROFISAFE-Modul_1":

F_parameters	Meaning
F_Dest_Add	F-address of the TBPN-L1-FDIO1-2IOL
F_iPar_CRC	CRC from the plaintext log of the Turck Safety Configurator

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0001 CONFIGURATION SAFETY I/O MODULE 1			0		2042	8
0002 Ident: "Test " 2	P	N-10	0	0 X1	2041*	1
0004 Monitor Section 4	P_	_1	0	1	256259	256257 8
0005	DF	Isafe-Modul_1	0	2	05	05
0006 Monitor Version: 12.0 6	fe	ty-Status 1	0	3	619	67
0007 Config Structure: 12.0 7		1	0	4	324 325	8
0008 PC Version: 3.0 8	-		0	-	324525	0
0009 Download Time: 0000-00-00 00:00 9		2	0	5	326327	=
0010 Validated: 2016-09-23 07:24 by: "Turck" code: 3925 count: 5 0	g	nosen_1	0	6	2229	ne
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0017 7	2			Diagno	Jatica	
0018 Index: 0 = "FDI 2/3 Emergency shutdown" 8						al se
0019 Type: 20 = double channel forced safety input 9						N N
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10021 Subype. No local acknowledge						
0023 Monitor Input: FDI 2/3					-	
0024						- 5
0025 Index: 1 = "FDI 0/1 Emergency shutdown"	th	: 3-Byte-CRC			-	E 2.
0026 Type: 20 = double channel forced safety input	10	- 1				es l
0027 Subtype: no startup test		. 1				
0028 Subtype: no local acknowledge 8	on	: 1				
UU29 Assigned: to USD 64 9	\ .					
0000 MONITOR INDEC. FDI 0/1 0		: []				
0032 Index: 2 = "0-4 Output F-CPU" 2	bb /	: 111				
0033 Type: 39 = PROFIsafe input device 3	N	. 0				
0034 F-Output: byte 0, bit 4 4	es l					
0035 Assigned: to OSSD 4 5		🛛 🛃 Manual assi	gnment of F-mo	onitoring t	ime	
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Fig. 27: F_parameters



3.2.1 Start the Turck Safety Configurator from TIA/Step 7



NOTE

Please observe during the installation of Turck Safety Configurator, that the interface for TIA-Portal/Step7 is installed with the software, see Integration of Turck Safety Configurator in TIA/Step7, see Integrate Turck Safety Configurator in TIA/Step7 (page 3).

Open Turck Safety Configurator using the function "Start Device Tool..." in TIA-Portal.



Fig. 28: Start the Turck Safety Configurator from TIA/Step7



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