## **TC MOBILE APP GUIDE**

# Getting started with the app for TC MOBILE I/O X200...



Technical note 107977\_en\_00

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#### 1 Description

This technical note describes how to use the app to switch outputs and monitor inputs.

The app can be used in combination with the following signaling systems:

Order No.	Designation	Link to product	
2903805	TC MOBILE I/O X200	phoenixcontact.net/product/2903805	Concession and Conces
2903806	TC MOBILE I/O X200 AC	phoenixcontact.net/product/2903806	



#### WARNING:

This technical note does not replace the device-specific documents.

Please observe the safety notes in the associated packing slips and user manuals.

•

Make sure you always use the latest documentation. It can be downloaded using the links provided above.



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## 2 Installing the hardware

• Install the TC Mobile device as described in the packing slip. Observe the safety notes in the packing slip.

## 3 Configuration via the web browser

There are two options for logging in on the device:

- Via an IP address
- Via a NetBIOS name

#### **IP address**

- Start a web browser. We recommend the current version of Firefox.
- Deactivate the proxy server setting in your browser. In Firefox, you will find this setting under: "Options menu, Advanced, Network, Connection, Settings".
- Enter the IP address 169.254.10.1 directly into the address line.

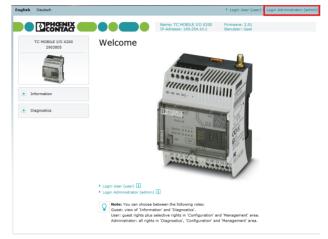
TC Mobile IO	×
← ⑥ 169.254.10.1	



#### **NetBIOS name**

- Start a web browser.
- Enter "tcmobile" in the address line.

- Log in as an administrator with the correct user name and password.
  - User name: admin
  - Password: admin





• Under "Access data, PIN", enter the PIN for the SIM card.

TC MOBILE I/O X200 2903805	1. Access da	ata	
Transferration of the second s	SIM configuration	E-mail/App configuration	
	SIM configuration		
	PIN required: 🚺	Enabled •	
+ Information	PIN: 🚺	1234	
<ul> <li>Configuration</li> </ul>	Operator selection:	Automatically 👻	
1. Access data	Operator:	26202 - Vodafone.de	
2. Contacts			
3. Inputs			
4. Outputs			
5. Name, Time, Restart			
6. App Wizard			
7. Status messages			
8. Checking costs/credits			
9. Log file			
+ Diagnostics			

Figure 3 Entering the PIN

• In the "E-mail/App configuration" tab, enter the APN. The APN can be obtained from your provider.

TC MOBILE I/O X200 2903805	1. Access data	
29000		configuration
and the second s	APN configuration	
+ Information	APN (Access Point Name):	web.vodafone.de
	Authentication:	Disabled 💌
<ul> <li>Configuration</li> </ul>	Username:	
1. Access data	Password:	
2. Contacts		
3. Inputs	E-mail configuration	
4. Outputs	Senderaddress: 🚺	
5. Name, Time, Restart	Server: 🚺	
6. App Wizard	Encryption: 🚺	SSL Encryption
7. Status messages	Port: 1	465
8. Checking costs/credits	Authentication: 1	Disabled 💌
9. Log file	Username:	
Diagnostics	Password:	
+ Administration	<b>Note:</b> The name of the device	e is automatically inserted in the subject line of the e-mails.

Figure 4 Entering the APN

- 3.1 App Wizard
- Click on "App Wizard".



Figure 5 App Wizard

- Enable using the smartphone app.
- 6. App Wizard

nable using th	e smartphon	e app: İ	E	nabled	
		PhoenixC Server Server 100101	< HTTPS		
		isons, a server is used fo aluated or forwarded to		between the device	and the smartphone ap

#### Figure 6 Enabling

- To protect your device against unauthorized access, enter a password for the app.
- Choose who will have access to the device:
  - Everyone
  - All saved contacts<sup>1</sup>
  - Selected contacts<sup>1</sup>

1 App using	2 Auther	ntication	3 Useraccount	4 Settings
Useraccount				
Authentication for u	ising the app: 🚺	Everyone		

## **Note:** Make sure that the outputs configuration is set correctly (activation and authorization) so that they can be switched via the smartphone app.

#### Figure 7 Authentication for using the app

<sup>1</sup> Contacts must be saved to the address book for this option to be available.

• Choose whether status messages should be sent after a power failure or cyclically.

Due to technical reasons, communication is in the form of SMS commands only. The device response is transmitted as data and stored on a Phoenix Contact server. So, one update every minute results in around 15 MB of data traffic per month.

#### 6. App Wizard

Settings	
👽 Send state to app	on start of device after power failure
Send state to app	on periodic event, every 5 minutes

#### Figure 8 Status messages

#### 3.2 Assigning a name

• Under "Name, Time, Restart", enter the name of the device.

TC MOBILE I/O X200 2903805	5. Name, Time, Restart
And Address of Concession of C	Name Date and time Time correction Restart via SMS
	Name
+ Information	Name of the device: TC MOBILE I/O X200
- Configuration	Insert senai number     Insert IMEI number
1. Access data	
2. Contacts	
3. Inputs	
4. Outputs	
5. Name, Time, Restart	
6. App Wizard	
7. Status messages	
3. Checking costs/credits	
9. Log file	
+ Diagnostics	
+ Administration	
Save & Reboot	

• In the "Date and time" tab, set the current time.

#### 3.3 Configuring the outputs

Activate the outputs that you want to switch.

TC MOBILE I/O X200 2903805	4. Outputs	
	Relay OUT1 Relay OUT2 Relay OUT3 Relay OUT4	
A CONTRACTOR OF THE OWNER	Configuration relay output OUT1 Configuration: Output enabled	
Information	Authorization for switching: 1 Everyone	
Configuration	Behaviour on Calls: 1 Calls disabled for this relation	y 💌
. Access data	Close relay contacts via SMS	
. Contacts	SMS command to close the relay: CLOSE1	
Inputs	Send acknowledgement after relay has closed	
. Outputs	Text of the acknowledgement:	Insert variables
Name, Time, Restart	O1 relay contact closed	
App Wizard		
. Status messages	Remaining characters for SMS: 137	
Checking costs/credits	Open relay contacts after waiting period: 10 Seconds	•
Log file	Open relay contacts via SMS	
	SMS command to open the relay: OPEN1	
Diagnostics	Send acknowledgement after relay has opened	
Administration	Text of the acknowledgement:	Insert variables
- Annual acout	O1 relay contact opened	
Save & Reboot	Remaining characters for SMS: 137	
	Close relay contacts after waiting period: 10 Seconds	

Figure 10 Activating the outputs

#### Opening relay contacts automatically

1	<ul><li>If you want to use this function:</li><li>Make sure that the automatic fall time is not set too low.</li></ul>
	We recommend a fall time of at least 30 seconds. Depending on your application, it may be neces- sary to set a longer fall time.

TC MOBILE I/O X200 2903805	4. Outputs		
and the second se	Relay OUT1 Relay OUT2 Relay	y OUT3 Relay OUT4	
	Configuration relay output OUT1		
	Configuration:	Output enabled 💌	
Information	Authorization for switching: 🚺	Everyone -	
Configuration	Behaviour on Calls: 🚺	Calls disabled for this relay	-
constant	Close relay contacts via SMS		
Contacts	SMS command to close the relay:	CLOSE1	
nputs	Send acknowledgement after re	lay has dosed	
utputs	Text of the acknowledgement:		Insert variables
ame, Time, Restart	O1 relay contact closed		
pp Wizard	Remaining characters for SMS: 137		
tatus messages	Open relay contacts after waitin		
hecking costs/credits		30 Jeconda -	
og file	Open relay contacts via SMS		
	SMS command to open the relay:	OPEN1	
Diagnostics	Send acknowledgement after re	lay has opened	
	Text of the acknowledgement:		Insert variables
Administration	O1 relay contact opened		
Save & Reboot	Remaining characters for SMS: 137		
	Close relay contacts after waitin	g period: 10 Seconds -	

Figure 11 Setting the automatic fall time

• Click on "Save & Reboot" to apply the settings.



Figure 12 Saving

## 4 App

• Download the "TC Mobile I/O" app from your smartphone's App Store.

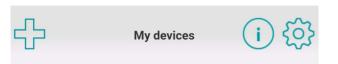


Figure 13 Android



Figure 14 iOS

- Start the app.
- Click the plus symbol to add a device.





- Enter the following data:
  - Phone number of the SIM card in the TC Mobile device
  - Serial number of the TC Mobile device, which is printed on the side
  - Password you entered in the App Wizard (see Page 4)

Add device

Telephone number:

0123456789 Serial number: 1122334455 Password: tcmobile

#### Add

Note! Beforde adding a device, make sure that the device is operating and that it has been configured via the app wizard on the configuration page of TC MOBILE I/O.

#### Figure 16 Entering the device data

Click on "Add".

A connection is now established with the TC Mobile device. Once the connection has been established, you can use the app to operate the device. For more information, please refer to Page 8 onwards.

#### 4.1 Possible errors

If the connection could not be established successfully, there are three possible reasons for this:

- Wrong phone number
- Wrong serial number
- Wrong password

#### Error messages

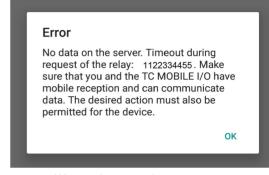


Figure 17 Wrong phone number

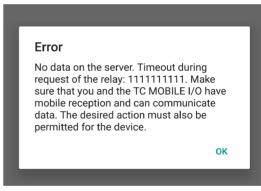
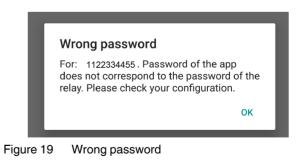


Figure 18 Wrong serial number



#### 4.2 Switching the outputs

- Select the desired device from the device list.
- On the "Outputs" tab, click on "Rename outputs".

<	Device details (i)	Rename outputs (i)
	switch	Output 1 :
Output 2	: open	pump 1
		Output 2 :
	switch	pump 2
Output 3	: open	Output 3 :
	switch	station lighting
		Output 4 :
Output 4	: open	station lighting 2
	switch	Apply
		Abort
	Rename outputs	Figure 21 Saving

Enter a name.

Click on "Apply".

•

•

Figure 20 Renaming outputs

Now you can switch the outputs via SMS. This function is only available if you have previously activated the outputs in the web-based management of the TC Mobile device (see Page 5).

<	Device	details	(i) {\$}	<	Device	details	(i) {\$}	<	Device	details	(i) (ôj)
	pull to	refresh			pull to refresh			pull to refresh			
TC MOBILE I/O	X200			TC MOBILE I/O	X200			TC MOBILE I/O X200			
Outputs	Inputs	Details	Logfile	Outputs	Inputs	Details	Logfile	Outputs	Inputs	Details	Logfile
Outputs				Outputs				Outputs			
pump 1		: open		pump 1		: open		pump 1		: closed	
	sw	itch							swi	tch	
pump 2		: open		pump 2		: open		pump 2		: open	
	sw	itch			swi	tch			swi	tch	
station lighting		: open		station lighting		: open		station lighting		: open	
	sw	itch			swi	tch			swi	tch	
station lighting	2	: open		station lighting	2	: open		station lighting	2	: open	

Figure 22 Switching the outputs via the app

#### 4.3 Monitoring the inputs

- On the "Inputs" tab, click on "Rename inputs".
- Enter a name.
- Click on "Apply".

<	Device details	(i) 🔅	Rename inputs (i)
input 3	: Low		Digital input 2 :
input 4	: Low		error pump 2
Analog inputs			Digital input 3 :
			door contact
input 5			Digital input 4 :
2976 l/h			not connected
input 6			Analog input 1 :
			flow amount
-90 degree			Analog input 2 :
			temperature
	Rename inputs		Арріу
Figure 23 Renar	ning the inputs		Abort

Figure 24 Saving

- Click on the cog symbol in the menu bar.
- Select whether you want to enable cyclical updating.
  - Cyclical polling does result in increased data traffic, but you receive up-to-date information automatically.
  - With manual polling, you will have less data traffic and so lower costs.

Settings	<b>i</b>
----------	----------

Vibrate when the TC Mobile I/O device has a change event at the inputs or outputs.

## Polling

Polling only works if the app is active. The app is not updated in the background.

The status stored on the communication server is automatically polled. This results in additional data traffic. An update interval of one hour means about 100 kB per month and device.

The periodic sending of the status must also be activated on the TC MOBILE I/O X200. Without this option, the values are only updated for change events at the inputs or outputs.

#### Enable polling :



#### Polling interval :





Now you can monitor the status of digital and analog inputs.

<	Device details	(i) 🔅
door contact	: Low	
not connected	: Low	
Analog inputs		
flow amount		
2976 l/h		
temperature		
-90 degree		
	Rename inputs	
-igure 26 Monito	ring the inputs	

#### 4.4 Device information

You will find information on the device under "Details".

<		<b>details</b> refresh	(i) 🔅
TC MOBILE I		reneon	
Outputs	Inputs	Details	Logfile
Details			

2000	
Last event	manual update
Serial number	1120606134
Phone number	01716406568
Device type	X200 (Order no.: 2903805)
Sent SMS	0
Transferred data	0.141 kB
Network provider	Telekom.de
Mobile Country Code	106
Mobile Network Code	1
Location Area Code	3947
Cell ID	8e5e
Signal strength	-55dBm (good)
Firmware	2.01

Figure 27 Device details

The logfile shows the most recent activities performed by the device.



Logfile

Logfile	
Timestamp	Event
2000-01-01 03:37:21	Positive edge at digital input 1
2000-01-01 01:17:08	Negative edge at digital input 1
2000-01-01 00:07:36	Exceeded upper tolerance limit at analog input 1 / Exceeded lower tolerance limit at analog input 1
2000-01-01 00:07:31	Fallen below upper tolerance limit at analog input 1 / Fallen below lower tolerance limit at analog input 1
2000-01-01 00:04:46	Relay output 1 closed
2000-01-01 00:01:37	Relay output 1 closed
2000-01-01 00:00:09	Device started

Figure 28 Logfile

• Click on the i button in the menu bar for further information and documentation.



#### TC Mobile I/O X200

Follow-up device of the SMS relay: monitor analog and digital values via the mobile communication network, and switch relay outputs remotely. Communication via SMS. Supply voltage range of 10 V to 60 V DC or with the AC device 93 V to 250 V AC.



	Manual	
	Side notice	
	Data privacy	
	GTC	
	Feedback	
Figure 29	Information and feedback	

\_\_\_\_\_

i

We look forward to receiving your suggestions on how we can make the app even more user-friendly. Just click on "Feedback".