OPERATING MANUAL INDU-WRC COMBO-01





1. THE METHOD OF MODULE ASSEMBLY

The module is to be installed on a bus bar TS 35 EG45 by Phoenix Contact.

2. DESCRIPTION OF INPUTS AND OUTPUTS

INDU_WRC COMBO-01 is fitted with:

4 analogue outputs AO.



8 digital inputs DI



6 analogue inputs



Standard configuration:

AO – 0..20mA DI – 24V AC/DC AI – 6xPT100



32 relay outputs (contact load capacity 250V AC 8A)

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 D0 1 D0 2 D0 3 D0 4 D0 5 D0 6 D0 7 D0 8 RELAY OUTPUTS	42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 D0 17 D0 18 D0 19 D0 20 D0 21 D0 22 D0 23 D0 24 RELAY OUTPUTS
	INDU-WRC COMBO-01
RELAY OUTPUTS D0 9 D0 10 D0 11 D0 12 D0 13 D0 14 D0 15 D0 16 Image: Colspan="2">Image: Colspan="2" Image: Colspan="2" Im	RELAY OUTPUTS D0 25 D0 26 D0 27 D0 28 D0 29 D0 30 D0 31 D0 32 Image: Constraint of the second secon

and communication ports PC RS485 and LAN (RJ45)



3. TECHNICAL DATA

POWER SUPPLY:	85V-264V AC	
	47-63HZ	
HOUSING:	Dimensions: 370x86x120 mm	
	to be installed on a bus bar TS 35	
	EG45 by Phoenix Contact.	
TEMPERATURE:	Storage -40+85 °C	
	Operation -25+70 °C	
DISPLAY:	Digital, 8 segments.	
KEYBOARD:	None	
STATE SIGNALLING:	LED for 5V	
COMMUNICATION:	• RS485, LAN (RJ45)	



3. INSTALLATION OF CONTROLLERS IN A PC

Communication module COM



The data exchange between the computer and the "INDU WRC Integrated Module" is performed via the RS485 **RS3** interface **or ETHERNET.** To examine this transmission channel carry out a test, which is divided into two stages.

The first stage consists in checking communication after RS485 **RS3**.

First configure the communication module using the "KonfigRSLAN.exe" program. The configuration of the "INDU WRC Integrated Module " is performed by connecting it to the computer via the **RS1** port and the RS485-USB converter. After connecting the module and running the program select address 2, the relevant COM port and transmission speed 19200. By pressing the "Read" button the TIBBO module configuration parameters will be read.

Check if the read operation mode is RS485, if not select from the picklist and set up by pressing the "send" button.

Konfiguracja		
Adres RS 485:	2 *	
Port COM:	COM4	
Prędkość transmisji:	19200 💌	
Tryb pracy LAN Adres IP	•	
Port 100	v . 219	

Fig. 8. KonfigRsLan.exe program

Close the "KonfigRSLAN.exe" program. Disconnect the power supply from the controller and panel. Connect the "WRC Integrated Module" to the "WRC Panel" through the RS485 **RS1** port and through the **RS3** port to the computer. Turn power of the controller and the panel on. Run the "MPC3.exe" program. In the file menu select "Log in" and enter the password "Adm". Go to the "Controller list" menu and add a new controller. Set the relevant COM port, address and the transmission speed set up in the panel. Press "Test". If the transmission is correct, mark option "active device" and press the "OK" button. The controller's pictogram should display in the program MPC3 dialog box.

Go to the second test stage. Restart the program KonfigRSLAN.exe". Disconnect the "WRC Panel" and connect the module to the computer via **RS1**. Switch the operation mode to "LAN", below enter the address IP 192.168.0.219 (or other free IP), in the port field: 1001. Click the send button, and next the read button for verification. Disconnect power supply from the controller and panel. Connect the "WRC Integrated Module" to the "WRC Panel" via the RS485 **RS1** port. Turn power of the controller and the panel on. Run the "HW Virtual Serial Port" program.



Go to the "Virtual Serial Port" tab and select the number of the COM virtual serial port to be created. The virtual port must not collide with the ports already existing in the system. [Check the COM ports installed in the system (Control panel – system – hardware tab - hardware manager - ports)]. Enter the IP address and the port, the same as the ones set up with the "KonfigRsLAN.exe" program and acknowledge with the "Create COM" button. Run the "MPC3.exe" program.

In the MPC3 file menu select "Log in" and enter the password "Adm". Go to the "Controller list" menu and from this pick list select the previously added controller. Go to edition of the port COM field. In this field set the number of the virtual port created with the "HW Virtual Serial Port" program. Press "Test". If the transmission is correct, mark option "active device" and press "OK". The controller pictogram should display in the MPC program box.

If both tests have been successful it means the communication RS3 and ETHERNET functions properly.

4. INSTALLATION OF TIBBO CONTROLLERS.

The installation of the exchange should start with the installation of controllers attached on the CD.

If the computer has a 32 bit Windows installed run application tdst-5-05-00-x86.exe from the CD, for a 64 bit version run tdst_5_00_03_beta_x64.exe.

Having run the application agree to the licence conditions by pressing "I Agree".

🚯 Tibbo Device Serve	er Toolkit Setup	
	License Agreement Please review the license terms before installin Server Toolkit.	g Tibbo Device
Press Page Down to s	ee the rest of the agreement.	
In order to use the T following license agre	ibbo Virtual Serial Port Driver, you must read and agree eement. Please indicate your agreement by pressing th	e to the e YES button.
TIBBO TECHNOLOGY END USER LICENSE & Tibbo Virtual Serial Po	, INC. AGREEMENT ort Driver	
This License Agreeme legal agreement betw Inc. ("Tibbo") for Tib many copies of the S	ent for the Tibbo Virtual Serial Port Driver ("License Agr ween you (either an individual or an entity) and Tibbo T bo Virtual Serial Port Driver software ("Software"). You oftware as necessary provided that these copies are u	eement") is a 'echnology, may install as Ised SOLELY
If you accept the terr agreement to install T	ms of the agreement, click I Agree to continue. You mu ïbbo Device Server Toolkit.	st accept the
Nullsoft Install System v	2,44	
	I <u>A</u> gree	Cancel

Having expressed your consent, in the next box check the "Tibbo Monitor (recommended)" option.



😣 Tibbo Device Server Too	lkit Setup		
	Choose Components Choose which features of Tibbo Device Server Toolkit you want to install.		
Check the components you install. Click Next to continue	want to install and uncheck the components you don't want to e.		
Select the type of install:	Custom		
Or, select the optional components you wish to install:	 Core files (required) Tibbo Monitor (recommended) Samples Documentation Create Start Menu Shortcuts 		
	Description		
Space required: 9.4MB	Position your mouse over a component to see its description.		
Nullsoft Install System v2.44 —	,		
	< <u>B</u> ack <u>N</u> ext > Cancel		

In the next dialog box select the place in the computer hard drive where you want to install the controllers and press the Install button.

🚯 Tibbo Device Server To	olkit Setup			_ 🗆 🗙
	Choose Install Choose the folde	Location er in which to install	Tibbo Device Ser	ver Toolkit.
Setup will install Tibbo Dev folder, click Browse and se	ice Server Toolkit in lect another folder.	the following folder Click Install to start	, To install in a dii the installation.	ferent
Destination Folder	b\TDST		Browse	<u></u>
Space required: 9,4MB Space available: 522,7MB				
Nullsoft Install System v2.44		< <u>B</u> ack	Install	Cancel

Having installed the controllers the setup should restart the computer.



Having connected the controller to the Ethernet network run the "Tibbo DS Manager" program (Start >> All programs >> Tibbo >> Tibbo Device Server Toolkit >> Tibbo DS Manager). In the program dialog box one item should appear as below:

Connection Senal	port o'dibourio packets All		
Owner name			
Device name			
MAC-address	0.200.0.0.32.70		
DHCP	0- Disabled		
IP-address	192.168.0.25		
Port	2570		
Registration at dDNS Server	0- Disabled		
dDNS Server IP-address	(irrelevant)		
dDNS Server port	(irrelevant)		
Auto-registration on Link Serv	0- Disabled		
PPPoE mode	0- Disabled		
PPPoE login name	(irrelevant)		
PPPoE login password	(irrelevant)		
Gateway IP-address	192.168.0.1		
Subnet mask	0.0.0.0		

Check the entry and press Settings.



In the next tabs present the option as in the pictures below:

Connection timeout (min)	5
Transport protocol	1-TCP
Broadcast UDP data	(irrelevant)
Link Service login	0- Disabled
Inband commands	0- Disabled
Data login	0- Disabled
Routing Mode	0- Server (Slave)
Accept connection from	0- Any IP-address
Connection mode	(irrelevant)
Destination IP-address	(irrelevant)
Destination port	(irrelevant)
Notification destination	0- Last port

Having presented the given options close the "Tibbo DS Manager" program and run the "Tibbo VSP Manager" program (Start >> All programs >> Tibbo >> Tibbo Device Server Toolkit >> Tibbo VSP Manager).

And the second second	4			
Port name	Routing mode	Destination	Local	Add
				Remove
				Remove All
				Properties

After starting press the "Add" button and agree to installation of the controllers by the system by selecting the "Continue" option.



Windows.

rev. 0.2

VSP Properties	Control Lines Default S	Serial Settings
VSP name:	*COM2	*
Networking		
Transport protocol:	TCP •	Transport TDI (default) ▼ provider:
Routing mode:	Client 💌	Connection Immediatly
On-the-fly commands:	Disabled 🔹	Out-of-band 65535
Listening port:	1001	Connection 5 timeout:
Destination		
Destination mode:	Single destination	Edit destination table
Specify by:	IP-address	Browse for DS
IP-address:	192.168.0.25	: 2570

Press OK and again agree to the controller installation in the Windows system by selecting "Continue".



/SP Properties Control Lines De	efault Serial Settings
Baud rate (bos):	38400
Data bits:	8
Parity:	None 🔻
Flow control:	Off 👻
Use Win32 API function	is GetDefaultCommConfig() and
Use Win32 API functior SetDefaultComConfig() to read or	is GetDefaultCommConfig() and write these settings from your application
Use Win32 API function SetDefaultComConfig() to read or Rest	ns GetDefaultCommConfig() and write these settings from your application

In the Tibbo VSP Manager box the following entry should appear:

🍓 Tibbo VS	SP Manager - V5	i.0.3 (beta)		X
Port Help	i			
Port name	Routing mode	Destination	Local	Add
COM2	TCP client	192.168.0.25:25		Remove Remove All
				Properties
Add, edit, rem	iove Tibbo Virtual	Serial Ports	-	

Having performed all the above steps, the module operates in the Ethernet network under the default IP-address 192.168.0.25.

