

WIO 22

Remote control Wiegand relay module

User's guide



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2 Product description

The **WIO 22** ¹⁾ remote control Wiegand relay module is designated for secure output control of **APS system reader modules** with integrated readers. The module can be connected to APS system modules featuring **Wiegand output**.

The module can be placed in the secure area and support door lock control or other functions, while the reader module can be placed in the non-secure area.

The module must be paired with appropriate reader module before use.



Pic. 1: WIO 22

¹⁾ Commercial designation of available versions is described in *table 1*.

3 Technical parameters

3.1 Product version

Version	Product designation	Catalogue number
	WIO 22	51901200

Table 1: Product version

3.2 Technical features

Technical features	Supply voltage		8 ÷ 15 VDC
	Current demand	Typical	35 mA
		Maximal	95 mA
	Inputs		N / A
	Outputs		2x relay NC/NO, 2A/24V
	Indicators		2x LED
	Tamper protection		N / A
	Communication interface		Wiegand input (proprietary)

Table 2: Technical features

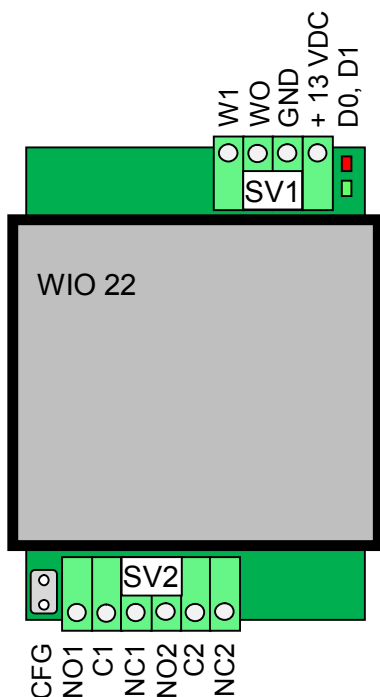
3.3 Mechanical design

Design	Weight	0,032 kg
	Operating temperature	-10°C ÷ +40°C
	Humidity	Max. 75%, non-condensing
	Environment	Indoor
	Housing	Plastic box suitable for DIN rail mounting
	Dimensions	60 x 44 x 16 mm

Table 3: Mechanical design

4 Installation

4.1 Terminals and jumpers



Pic. 2 Terminals and jumpers

LED	D0	Green LED
	D1	Red LED

Table 4: LED indication

CFG	CFG	Configuration jumper
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Table 5: Configuration jumper

Terminal SV1	W1	Wiegand DATA 1
	W0	Wiegand DATA 0
	GND	0 V
	+13V	+ 13 VDC

Table 6: Terminal block SV1

Terminal SV2	NO1	Relay1 NO
	C1	Relay1 C
	NC1	Relay1 NC
	NO2	Relay2 NO
	C2	Relay2 C
	NC2	Relay2 NC

Table 7: Terminal block SV2

4.2 LED Indicators

LEDs	D0	Green LED	Door lock relay indication (ON = active)
	D1	Red LED	Alarm relay indication (ON = active)
	Fast flashing (red/green)		Configuration mode indication

Table 8: LED indicators

4.3 Configuration jumper

CFG	CFG	Configuration jumper for pairing the relay module with a reader module
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Table 9: Configuration jumper

4.4 Relay outputs function – standard operating mode

Relays	Relay 1	Copying the status of the door lock (first) output of the reader module
	Relay 2	Copying the status of the alarm (second) output of the reader module

Table 10: Relay outputs function – standard operating mode

4.5 Relay outputs function – standard operating mode with IDS control

Relays	Relay 1	Copying the status of the door lock (first) output of the reader module
	Relay 2	Output for IDS control

Table 11: Relay outputs function – standard operating mode with IDS control

4.6 Installation instructions

The device is suited for DIN rail mounting in indoor environment.

Note: The Wiegand signals are measured against the GND signal. Therefore it is necessary to connect the GND signals of the reader and relay module as well.

5 Relay module setting and operating

5.1 Pairing the relay module with a reader module

Connect the *WIEGAND interfaces* of the reader module and the relay module together and plug in the configuration jumper *CFG* (see *pic. 2, table 5*). The relay module goes in the configuration mode indicated by *fast switching of the green and red LEDs*. Remove the configuration jumper after *15 seconds*. The relay module will be paired with the reader module and will go to the standard operating mode.

5.2 Relay module operation – standard operating mode

The relay module *copies the statuses of the reader module outputs* in the standard operating mode. This means the first output of the relay module is copying the door lock output of the reader module and the second output of the relay module is copying the alarm output of the reader module when used with APS mini and APS mini Plus system module; when used with APS 400 system module, the outputs of the reader module comply with the outputs of the relay module (*tab. 10*).

5.3 Relay module operation – standard operating mode with IDS control

If the module is used with an APS mini Plus reader module operating *in Standard operating mode with IDS control*, the first relay output of the WIO 22 is copying the status of the reader module's door lock relay, while the second relay of the WIO 22 is used for IDS control (*tab. 11*).

6 Useful links

- Wiring diagrams – APS mini Plus: <http://techfass.cz/diagrams-aps-mini-plus-en.html>
- Wiring diagrams – APS 400: <http://techfass.cz/diagrams-aps-400-en.html>
- Program equipment: <http://techfass.cz/software-and-documentation-en.html>