

OUFLEX A XL

Compact freely programmable automation unit

Ouflex is a DIN-rail-attachable and freely programmable device designed for monitoring, controlling and regulating. The device is programmed with Ouflex BA Tool utility and the prepared program is loaded to the Ouflex device via Ethernet connection. It is possible to increase the number of I/O-points with external I/O-modules via Modbus RTU connections.



TECHNICAL SPECIFICATION

Product code	OMA0634
Dimensions	width 213,5 mm, height 97,5 mm, depth 100,5 mm
Weight	0,7 kg
Protection class	IP 20
Operating temperature	0 °C...+40 °C Attention! The maximum ambient temperature can be +50°C, but in that case, Triac (42...44), as well as power supply outputs (41 and 93), can only be loaded with 50% of the maximum current.
Storing temperature	-20 °C...+70 °C
Power supply	Operating voltage 24 Vac, 50 Hz (22 Vac - 33 Vac) Power required (15 Vdc output = if not connected) 13 VA (15 Vdc output = 600 mA) 34 VA Notice! Please consider power required for 24 Vac and Triac outputs. Backup input (92 and $\perp$) 12 Vdc Current consumption (12 Vdc) 370 mA / 4,5 W (relays not in use) 500 mA / 6 W (relays in use) (in addition, the load of the 15 vdc output and the voltage drop must be taken into account)
Universal measurement input (can be configured) measurement types and measurements accuracy:	
Passive sensors (inputs 1...16)	NTC10: $\pm 0,3$ °C between -20 °C...+130 °C, $\pm 1,0$ °C between -50°C...-20 °C. NTC 1.8 and NTC 2.2: $\pm 0,4$ °C between -50 °C...+100 °C, $\pm 0,6$ °C between +100°C...+130 °C (IO HW 1.x: $\pm 0,6$ °C between -50...70°C and $\pm 2,0$ °C between 70...130°C) NTC 20: $\pm 0,6$ °C between -20 °C...+130 °C , $\pm 2,0$ °C between -50°C...-20 °C Ni1000LG, Ni1000/DIN and Pt1000: $\pm 0,3$ °C between -50 °C...+130 °C (IO HW 1.x: $\pm 1,0$ °C between -50 ...130°C) Also sensor tolerances and the effect of cables must be considered when calculating total accuracy.
Active sensors (inputs 1...16)	0...10 V voltage message, meas. accuracy $\pm 0,1$ V Milliamp signal 0/4 to 20 mA with 250 Ω or 500 Ω shunt resistor. Accuracy 250 Ω : $\pm 0,2$ mA (measuring range 0/1 to 5 Vdc). Accuracy 500 Ω $\pm 1,3$ mA (measuring range 0/2 - 10 Vdc) In addition, the parallel resistance tolerance must be taken into account.
Contact information (inputs 1...16)	Contact voltage 3,3 Vdc. (IO HW 1.x: Contact voltage 5,0 Vdc) Contact current 1 mA Contact resistance max 1,9 k Ω (closed), min 50 k Ω (open)
Counter inputs (inputs 13...16)	Minimum pulse length 30 ms

Digital input measurement types	
Contact information (inputs 21 and 22)	Contact voltage 15 Vdc. Contact current 1,5 mA Contact resistance max 500 Ω (closed), min 2 k Ω (open)
Counter inputs (inputs 21...22)	Minimum pulse length 30 ms
Analog outputs (61...66)	
	Output voltage range 0...10 V. Output current max 9 mA/output
Relay output	
Change-over contact relay (71...76)	2 pcs, 230 V, resistive 5 A/ inductive 1A (cos ϕ -0.8)
Normally open contact relay (77...84)	4 pcs, 230 V, resistive 5 A/ inductive 1A (cos ϕ -0.8)
Triac outputs	
24 Vac (42 ... 43 and $\perp$)	Output current max 0,75 A per triac par
24 Vac (44 ... 45 and $\perp$)	Output current max 0,75 A per triac par
Operating voltage outputs	
5 pcs 24 Vac outputs (41 and $\perp$)	Output current max 0,75 A/output
15 Vdc output (93 and $\perp$)	Output current max 600 mA
Data transfer connections	
RS-485 bus (A1 and B1) COM2	Galvanically isolated, supported protocols Modbus-RTU
RS-485 bus (A2 and B2) COM3	Galvanically isolated, supported protocols Modbus-RTU
RS-485 bus (RJ45 in the end of device) COM1	Non-isolated Modbus-RTU-master bus with fixed settings. Compatible with Modbus EXU A3/B3. Note! The BG connector must never be used or connected.
RS-485 bus (RJ45 in the end of device) COM5	Galvanically isolated parameterizable Modbus-RTU-master/slave bus. Compatible with Modbus EXU A4/B4
USB-host connection	RS-232-modem, Ouman GSM modem
Ethernet	Full-duplex 10/100 Mbit/s, supported protocols Modbus-TCP/IP
Ouman Access	Intelligent remote connection built-in for use with Ounet and Ouflex Tool
Processor	
	Cortex-A7 528 MHZ
SDRAM	
	512 MB
FLASH	
	512 MB
Warranty	
	2 years (See warranty conditions from the user manual)
Standards	
EMC-directive	2014/30/EU and the amending CE Directive 93/68/EEC
EMC Immunity	EN 61000-6-1:2016(IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-11)
EMC Emission	EN 61000-6-3:2020 (EN55022B)
Safety	EN 60730-1:2011
Low voltage directive	2014/35/EU and the amending CE Directive 93/68/EEC
RoHS-directive	2011/65/EU and 2015/863/EU
WEEE-directive	2012/19/EU