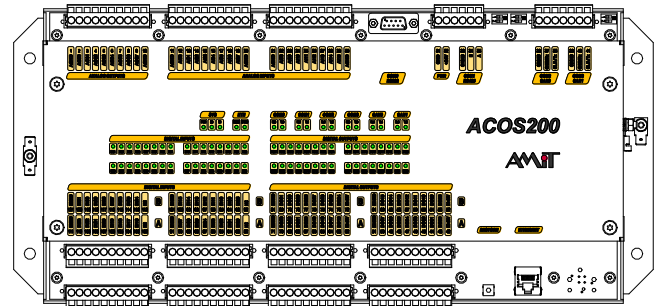


# ACOS200

Compact control system

- 32× digital input 24 V GI
- 32× digital output 24 V / 0.3 A GI
- 16× analogue input U / I / Ni
- 8× analogue output U
- RS232, RS485, Ethernet interface
- 2× optional RS232 / RS485 / CAN
- Integrated web server
- Micro SD card slot
- Power supply 24 V DC



## TECHNICAL DATA

<b>Processor, FLASH / EEPROM</b>	STM32F427, 2 MB + 4 MB / 32 KB
Backed-up RAM memory	1 MB
Micro SD card slot	Accessible after case cover removal
<b>RTC, accuracy (25 °C)</b>	CPU, ±20 ppm (max. ±1.73 s/day)
<b>RAM + RTC backup</b>	CR2477 lithium battery removable module
Battery lifetime	5 years in normal environment
<b>Inputs</b>	32× DI + 16× AI
Digital inputs	24 V DC
Galvanic isolation of digital inputs	Yes <sup>1)</sup>
Analogue inputs	(0 to 10) V DC / (0 to 20) mA DC / Ni1000 / Pt1000
<b>Outputs</b>	32× DO + 8× AO
Digital transistor outputs	24 V / 0.3 A DC
Galvanic isolation of digital outputs	Yes <sup>1)</sup>
Analogue outputs	(0 to 10) V DC, maximum load 10 mA
<b>Communication</b>	
RS232	1×, connector D-sub DE-9
Galvanic isolation	Yes <sup>1)</sup>
RS485	1×, connector WAGO 231
Galvanic isolation	Yes <sup>1)</sup>
Ethernet	IEEE802.3 (connector RJ45)
Optional interfaces on the module	RS485 (with module CM-RS485), GI CAN (with module CM-CAN), GI RS232 (with module CM-RS232) – only Rx, Tx
<b>Power supply</b>	14.4 V DC to 28.8 V DC
Power consumption	Max. 220 mA at 24 V DC
Overvoltage protection / reverse polarity protection	Electronic
<b>Other</b>	
Signal connection	Cage clamps WAGO 231
Ingress protection rate	IP20, located in the metal cover
Operating temperature range	-40 °C to 70 °C
Maximum ambient humidity	< 95 % non-condensing
Weight	2.04 kg
Dimensions (w × h × d)	(395 × 187 × 44) mm
Programming	DetStudio / EsiDet

<sup>1)</sup> Isolation strength 500 V AC / 1 min., galvanic isolation must not be used for separation of dangerous voltages.  
Analogue inputs and outputs are not galvanically isolated.

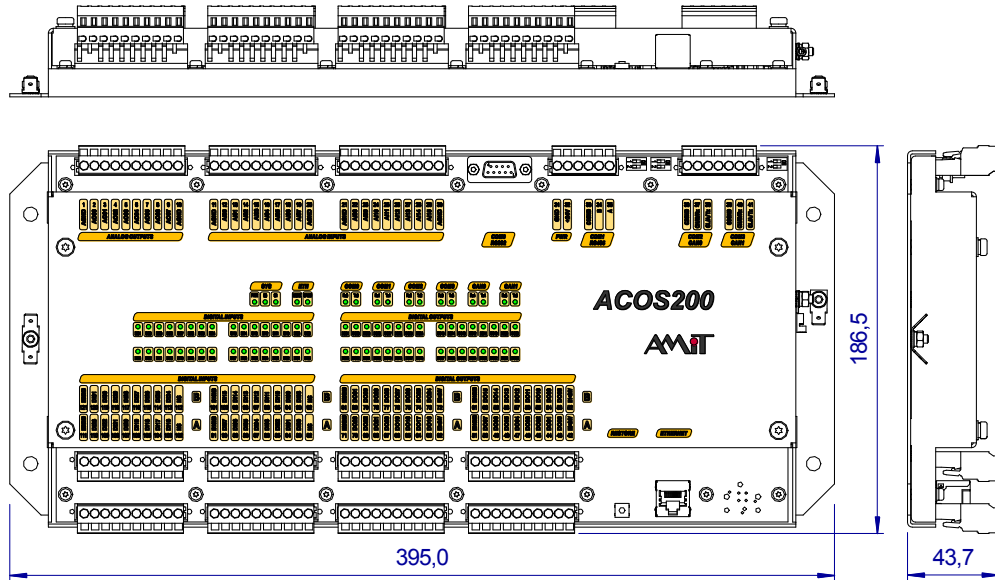
## ORDERING INFORMATION

<b>ACOS200</b>	Control system, connectors WAGO 231
<b>CM-RS485</b>	Communication module for RS485 with galvanic isolation
<b>CM-RS232</b>	Communication module for RS232 without galvanic isolation, only Rx and Tx
<b>CM-CAN</b>	Communication module for CAN with galvanic isolation

## DRAWING SYMBOL

<b>ACOS200</b>		<b>AMIT</b>	
<b>PWR</b>		<b>Ethernet</b>	
32	+24V	Ethernet	
31	GND	Ethernet	
<b>COM3/CAN1</b>		<b>COM0</b>	
41	CL/A/Tx	COM0	
40	CH/B/Rx	COM0	
39	C3GND	COM0	
<b>COM2/CAN0</b>		<b>AO</b>	
38	CL/A/Tx	AGND	1
37	CH/B/Rx	AO00	2
36	C2GND	AO01	3
<b>COM1</b>		AO02	4
<b>RS485</b>		AO03	5
35	A	AO04	6
34	B	AO05	7
33	C1GND	AO06	8
<b>DI</b>		AO07	9
121	I23GND	AGND	10
120	DI31	<b>AI</b>	
119	DI30	AGND	11
118	DI29	AI00	12
117	DI28	AI01	13
116	DI27	AI02	14
115	DI26	AI03	15
114	DI25	AI04	16
113	DI24	AI05	17
112	NC	AI06	18
111	I23GND	AI07	19
110	DI23	AGND	20
109	DI22	AGND	21
108	DI21	AI08	22
107	DI20	AI09	23
106	DI19	AI10	24
105	DI18	AI11	25
104	DI17	AI12	26
103	DI16	AI13	27
102	NC	AI14	28
101	I01GND	AI15	29
100	DI15	AGND	30
99	DI14	<b>DO</b>	
98	DI13	E0+24V	42
97	DI12	DO00	43
96	DI11	DO01	44
95	DI10	DO02	45
94	DI09	DO03	46
93	DI08	DO04	47
92	NC	DO05	48
91	I01GND	DO06	49
90	DI07	DO07	50
89	DI06	E01GND	51
88	DI05	E1+24V	52
87	DI04	DO08	53
86	DI03	DO09	54
85	DI02	DO10	55
84	DI01	DO11	56
83	DI00	DO12	57
82	NC	DO13	58
		DO14	59
		DO15	60
		E01GND	61
		E2+24V	62
		DO16	63
		DO17	64
		DO18	65
		DO19	66
		DO20	67
		DO21	68
		DO22	69
		DO23	70
		E23GND	71
		E3+24V	72
		DO24	73
		DO25	74
		DO26	75
		DO27	76
		DO28	77
		DO29	78
		DO30	79
		DO31	80
		E23GND	81

## MECHANICAL DIMENSIONS



Terminal	Signal	Description
1, 10, 11, 20, 21, 30	AGND	Analogue ground
2 to 9	AO00 to AO07	Analogue output 0 to 7
12 to 19	AI00 to AI07	Analogue input 0 to 7
22 to 29	AI08 to AI15	Analogue input 8 to 15
31	GND	Power supply ground
32	+24V	Power supply, +24 V DC
33	C1GND	Galvanically isolated RS485 interface, ground
34	B	Galvanically isolated RS485 interface, signal B
35	A	Galvanically isolated RS485 interface, signal A
36	C2GND	Optional interface COM2/CAN0, ground
37	CH/B/Rx	Signal CH/B/Rx of the optional interface
38	CL/A/Tx	Signal CL/A/Tx of the optional interface
39	C3GND	Optional interface COM3/CAN1, ground
40	CH/B/Rx	Signal CH/B/Rx of the optional interface
41	CL/A/Tx	Signal CL/A/Tx of the optional interface
42	E0+24V	Power supply to digital outputs DO00 to DO07
43 to 50	DO00 to DO07	Digital output 0 to 7
51, 61	E01GND	Common ground for outputs DO00 to DO15
52	E1+24V	Power supply to digital outputs DO08 to DO15
53 to 60	DO08 to DO15	Digital output 8 to 15
62	E2+24V	Power supply to digital outputs DO16 to DO23
63 to 70	DO16 to DO23	Digital output 16 to 23
71, 81	E23GND	Common ground for outputs DO16 to DO31
72	E3+24V	Power supply to digital outputs DO24 to DO31
73 to 80	DO24 to DO31	Digital output 24 to 31
82, 92, 102, 112	NC	Not connected
83 to 90	DI00 to DI07	Digital input 0 to 7
91, 101	I01GND	Common ground for inputs DI00 to DI15
93 to 100	DI08 to DI15	Digital input 8 to 15
103 to 110	DI16 to DI23	Digital input 16 to 23
111, 121	I23GND	Common ground for inputs DI16 to DI31
113 to 120	DI24 to DI31	Digital input 24 to 31

Data provided in this datasheet are informative only. Binding detailed information can be found in the operational manual ([acos200\\_g\\_en\\_xxx.pdf](#)). Documentation is available for download at [amitautomation.com](http://amitautomation.com).