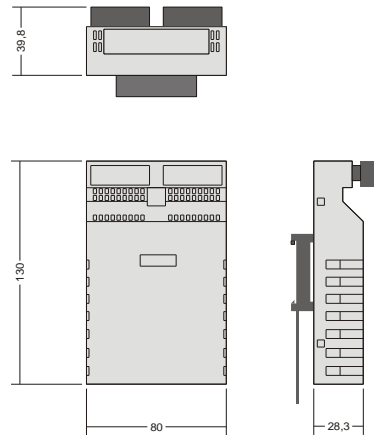
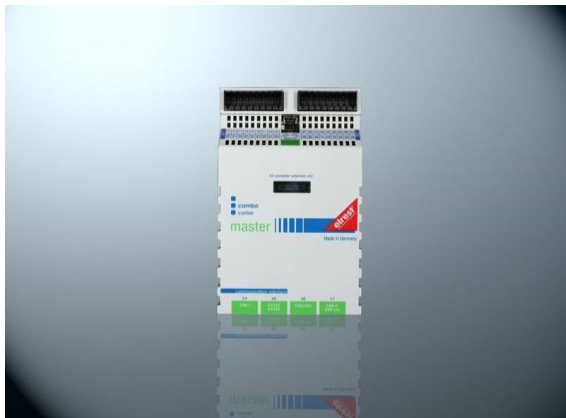


# combo control

## Data sheet combo control master CM211



• 16 digital I/O • 4x analogue IN und 4 analogue OUT •

Specifications	
Memory	64MB DRAM, 128 MB (opt. 256 MB) Flash, 1MB SRAM
Extension	combo CE Extension- Modul, combo CS Slave- Modul
Processor	32 BIT ARM9 RISC CPU 400 MHz
Buffering	Persistent data in flash Real-time clock and retain data in battery- buffered RAM
Software	
Operating system	Microsoft Windows embedded CE 6.0 basic
SPS programming	IEC61131-3 / CoDeSys V2 (CS2) oder V3 (CS3)
HMI programming	Optional elaDesign or S3 TargetVisu (TV) and WebVisu (WV)
Additional HMI component	visio-PTE404 or PTE407 optional with Web in WV or VNC bei TV
Ethernet TCP/IP -Stack	HTTP Web Server, SMTP Email ; FTP Filetransfer, TCP Modbus
Interfaces	
	1 x CAN0 acc. ISO 1898 with galvanic isolation RJ45, ESB or CANopen 1 x Ethernet 10 BaseT (RJ45) 1 x RS232 / RS485 (RJ45) 1 x CAN1 ISO 1898 with galvanic isolation (RJ45) 1 x USB 2.0 Host
Environment / Mechanical values	
Supply voltage	24 V <sub>DC</sub> (18...30 V <sub>DC</sub> )
Housing	IP20
EMC-examinations	EN61000-6-2, EN61000-6-4
Safety class	III
Mounting	snap- fit on top hat rail DIN50022
Outside dimension in mm (W x H x D)	approx. 80 x 130 x 28,5
Weight approx.	100g
Operating temperature	0° to 50°C
Storage temperature	-20° to 70°C
Ordering number	
23113.0002	combo - CM211/CS2/ED/ESB/CAN
23113.0003	combo - CM211/CS2/ED/ESB/CAN/SD
23113.0004	combo - CM211/CS3/TV/WV/CAN
23113.0005	combo - CM211/CS3/TV/WV/CAN/SD
Diagnostic	
LED's	LEDs for operating and status messages, LED power; LED status I/O

<b>Digital Input</b>	
Input voltage	24 V <sub>DC</sub>
Frequency max.	10 kHz
Overvoltage	43V
Dissipation loss typ.	0,2 Watt per channel
<b>Digital Output</b>	
Output voltage	24 V <sub>DC</sub> / 0,5 A
Total current (acc. to DIN)	max. 5 A (bei 50% ED)
Resisive load	10 W
Switching frequency ohm/ inductive	10 kHz
Short circuit/ thermal protection	Current limiting typ. 0,7 A per channel/ 150°C fuse, 5A for total current
Stepper motor controller	8 independent channels with each 10 kHz for pulse and direction
Reverse polarity protection	yes
Wire length max.	600m (unshielded), 1000m (shielded)
Dissipation loo typ.	0,2 Watt per channel
<b>Analogue Input</b>	
Measurement power	0...20 mA
Measurement voltage	0...10 V
Measurement temperature	-30 ... 500°C PT100
A/D converter	12 Bit
Sensor type	2- wire
Processing time per channel	Standard:10 ms; optional: 1ms on current or voltage input
<b>Analogue Output</b>	
D/A converter	12 Bit
Voltage	0...10 V <sub>DC</sub> , or -10 ... +10 V <sub>DC</sub>
<b>Power range</b>	
Ramp	Linear; sin ; sin <sup>2</sup> , sin <sup>3</sup> und log
Regulation	stepper motor electronically reversible
Motor selection	stepper motor with stepper amplifier (SA) performance levels
<b>Accessories article number</b>	
240020903	Y-Adapter for combo control RS232/RS485, RJ45/2xSubD9, grey
240020903	Y-Adapter RJ45 St.->2xRJ45 Bu.;0,15m;grau
240020501	CAN/ESB terminator resistor for combo control, green
240020205	RJ45/RJ45, 0,3 m, green
240020204	RJ45/RJ45, 2,0 m, green
240020203	RJ45/RJ45, 2,0 m, yellow
26111.0000	SA102 stepper amplifier 24 V <sub>DC</sub> , 2,5 A
<b>Applications</b>	
in many industries such as plastics, medical- and automation technology	

"Illustrations, descriptions, dimensions and specifications correspond to the circumstances or intentions at the time of printing this brochure. Changes of any kind, especially those resulting from technological progress, economic performance or a similar will be without notice. The external interconnection of equipment will be on your own responsibility

**Remark:** The use of standard CF-cards is generally possible. Anyhow elrest GmbH does not take any responsibility thereby.

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