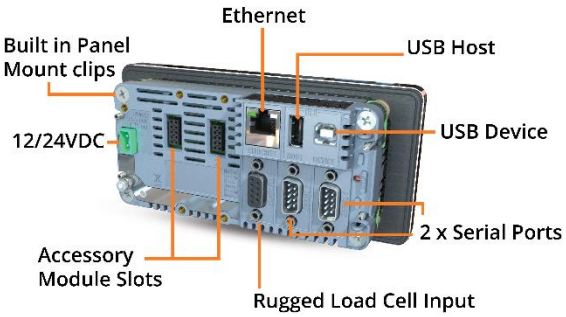
C500 Series – Data Sheet



- 16 x 350Ω load cells
- AC and DC versions
- Ethernet and USB host and slave standard
- 10,000d @ 0.5 μV/d
- 8 I/O (option)
- Analog module with 2 isolated I/O (option)
- High contrast LED display
- Three programmable function keys
- Totalizing, Hold, and Peak Hold
- MODBUS TCP/IP, ASCII, RTU
- Ethernet/IP option
- Lua programmable option
- Embedded web server
- Diagnostics via Ethernet or rinLINK

C500 Series is Rinstrum's latest panel mounted industrial process controller equipped with modern interfaces and increased accuracy. The C500 Series is the culmination of 25 years of innovative weighing controller design, bringing together the best of our R400 and 5000 Series.

Three models are available in the C500 Series. The C520 has a high-contrast LED display and 6-button keypad. The C530 is the same weighing electronics, din rail mounted with no display. When panel mounted, the C520 uses a standard ½ DIN cut out and can generally be used as a direct drop-in replacement for the Rinstrum 5000 and other process controllers like the HBM WE2110 and WE2111.

The C527 is IP65 rated waterproof stainless-steel housing unit with all C500 series weighing capabilities. It comes with wall, desk and pole mounting options and is available as either a factory fit AC or DC version

Ideal applications for the C500 Series include truck weighing, process control, OEM, and programmable solutions using the embedded Lua scripting engine.

Connectivity

USB Host and Slave, Ethernet and Modbus are standard

- USB keyboard, printer, mass storage and serial connections
- Ethernet networking for connection to a PC or HMI
- Connection to PLC using Modbus, optional Ethernet/IP package or Analog output module
- RS232 or RS422/485 (4 wire) serial port for connecting external computers or PLCs, or as a driver for remote displays
- RS232 serial port to drive serial printers (with DTR handshaking) and remote displays. It can also be used as a network port
- Ethernet or magnetically coupled rinLINK provide a temporary connection to a laptop for configuration and diagnostics

Ethernet/IP support with optional software

Modules

- 8 isolated Input/Output (I/O)
- Analog output including two isolated I/O
- Isolated RS232 and RS485

Smart Weighing – C530

- Ideal for DIN rail or surface mounting
- Setup via the PC using Rinstrum C500 Viewer
- rinLINK connector on the rear for quick temporary connection to the PC

C500 Series Specifications

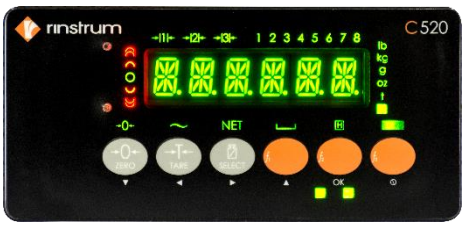
Specifications	C520	C527	C530
Resolution	Up to 100,000d, minimum of 0.05 µV/d		
Approvals	CE, C-tick 10,000d @ 0.5 µV/d OIML R76 NTEP		
Zero Cancellation	+ / - 2.0mV/V		
Span Adjustment	0.1mV/V to 3.0mV/V full scale		
Excitation	5V for up to 16 x 350-ohm load cells 4-wire (with jumpers) or 6-wire plus shield		
A/D Type	24-bit Sigma Delta 8,388,608 internal counts		
Nominal Environment	Temperature -10 to +40°C (14 °F to 104 °F)		
Operating Environment	Temperature -10 to +60°C (14 °F to 140 °F)		
Storage	Temperature -40 to +70°C (-40 °F to 158 °F)		
Display	13.8mm tall (0.543") Green LEDs 6 x 14-segment digits		None, connect via USB, rinLINK or Ethernet to PC software, C500 Viewer or smart HMI
Setup and Calibration	Full digital calibration with visual prompting in plain messages		
FIR Hardware DSP Filter	Selectable from 10 Hz – 100 Hz		
Digital Filter	Averaging from 1 to 200 consecutive readings		
Zero Range	Adjustable from 4% to 100% of full capacity		
Correction	10-point linearity correction		
Power			
DC Power	12-24VDC 10VA		
AC Power	110-240VAC 50-60Hz ~0.6A Accessory M5104, includes 12VDC output	110-240VAC 50-60Hz ~0.6A	110-240VAC 50-60Hz ~0.6A Accessory M5104, includes 12VDC output
Connectivity			
Ports	USB Host: 1, supports keyboard, printers, mass storage, serial ports	USB Host: 1, supports keyboard, printers, mass storage, serial ports (Front Facing)	USB Host: 1, supports keyboard, printers, mass storage, serial ports
	USB Slave: 1, operates as USB serial port, Windows driver installs with C500 Viewer		
	Ethernet: 1 x 10/100 Interface		
	rinLINK - magnetically coupled infra-red port		
	Serial Port 1 : RS232 and RS422/ RS485		-
	Serial Port 2 : RS232		

Accessories	
No. of Option Slots	2
8 I/0 Module **Set Point Card**	8 x Isolated (>500V) digital I/O control points High Side FET Outputs will drive up to 400mA each High Side inputs (12-24V) Accessory M5301, Active HIGH
Analog Output Module **Includes 2 I/O**	1 x Analog output Isolated (>500V) 4-20mA or 0-10V. 400Hz update at 1/65,000 resolution.

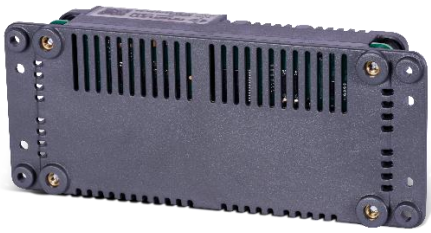
Combo Card	2 x digital I/O Accessory M5401		
Serial Modules	Accessory M5201, RS232/RS232 Isolated Accessory M5203, RS485/RS485 Isolated Bi-directional with secondary transmit only		
Features			
Set Points	8 selectable Active, Motion, Zero, Error, Net		
Annunciators	lb, kg, g, oz, t, I/O 1-8, Range 1/2/3, COZ, Motion, Net, Zero Band, Hold, 4-Spare, 5-Check Weigh		visible via PC software
Keys	6 keys Zero, Tare, Gross/Net, 3 x function		controlled via PC software
Operating Modes	Single Range, Dual Range and Dual Interval		
Clock	Battery Backed Clock Calendar		
Alibi Mode	Standard		
Change Log	Standard		
Data Storage (DSD)	Standard, built in		
Comms Protocol	rinCMD and 5000 legacy via serial, USB, TCP and UDP, Modbus ASCII, RTU & TCP/IP		
Mechanical			
Case Size	164mm W x 77mm H x 47.4mm D 6.45” W x 3.03” H x 1.87” D	207.5mm W x 285.5mm H x 134mm D 8.17” W x 11.27” H x 5.87” D	162mm W x 65.6mm H x 56.1mm D 6.38” W x 2.58” H 2.20” D
Panel Cut Out	DIN 43 700 - 137mm W x 68mm H 5.39” W x 2.68” H	-	-
Case Front	PMMA & Elastomer	PMMA & Elastomer/ SS 304	PMMA & Elastomer
Case Rear	ABS Flame Retardant, UL94V0	SS 304	ABS Flame Retardant, UL94V0
Packing Weights	~0.4kg/0.9lbs	~2.7kg/6lbs (DC version) ~2.9kg/6.4lbs (AC version)	~0.4kg/0.9lbs
Mounting	Panel & Desk	Wall, Desk & Pole	DIN Rail
Dust Cover	Stainless Steel cover, Accessory M5001	-	-
IP Rating	-	IP65	-
Physical Seal	Accessory	Security Screw (Packed) + Wire Seal	Accessory M5009

Specifications may change at any time without notice

C520



C530



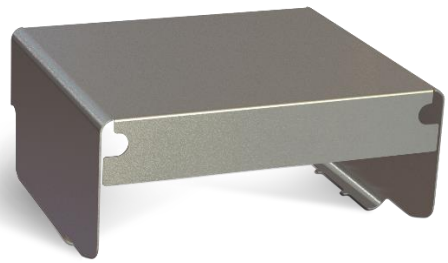
C530 with Load Cell DB9 Cover
(Cover provided as standard)

Showing Load Cell DB9 Connection

C520 with Modules fitted
AC Module (M5104), Analogue Module (M5401) & Loadcell Adaptor

Dust Cover (M5001)

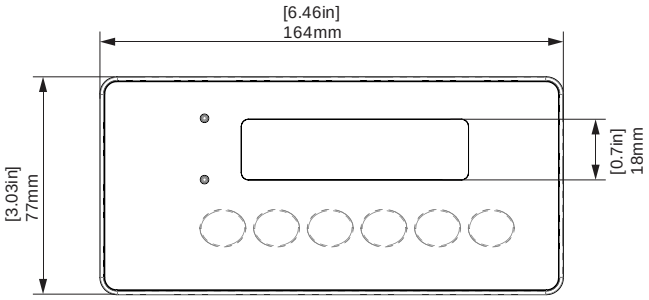
Desk stands fitted (provided standard)

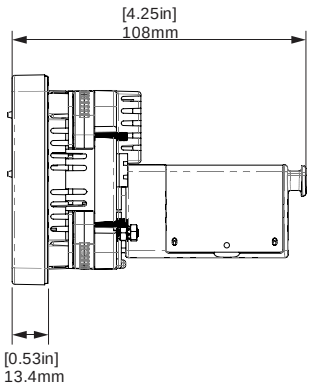


Stacking of C520s using desk stand and clips

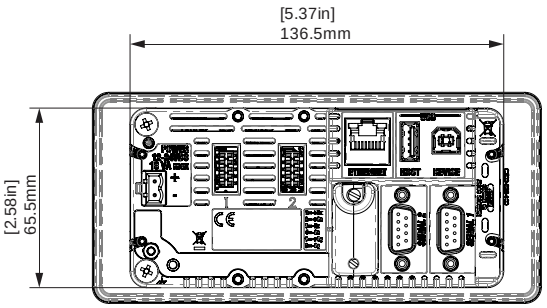
C527

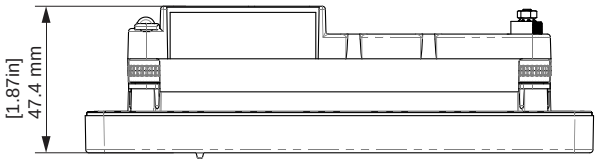
C520



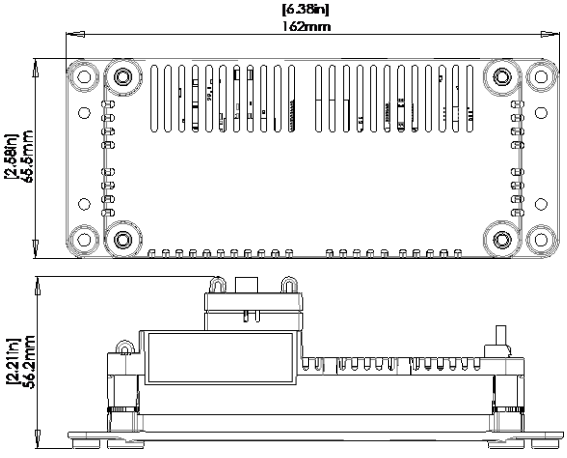


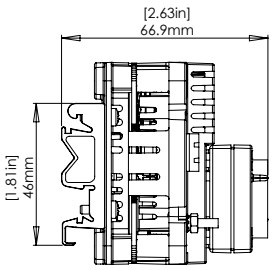
With Loadcell Adaptor





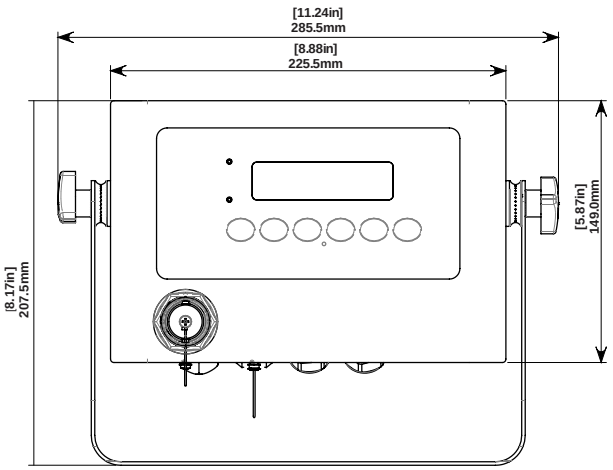
C530





With DIN-Rail Mounting Clips

C527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225.5mm
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207.5mm
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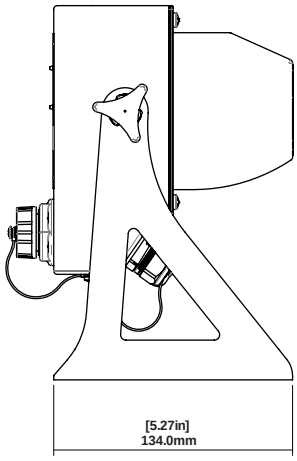
149.0mm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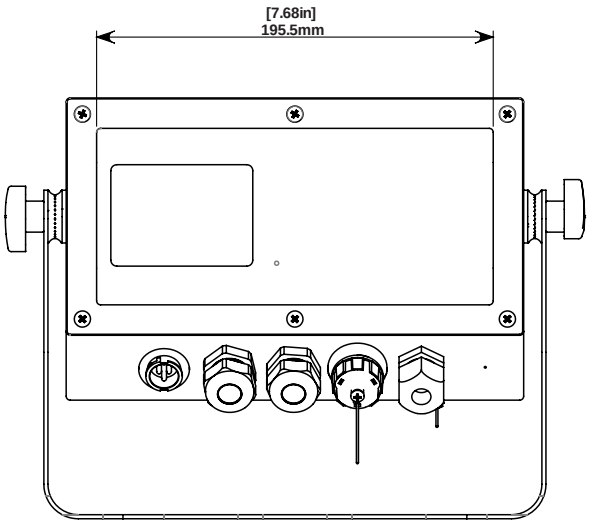
134.0mm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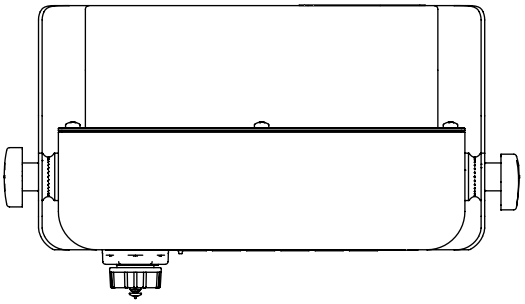
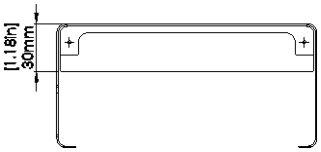
195.5mm



M5002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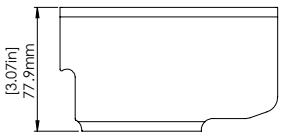
30mm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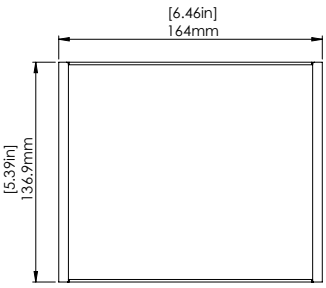
77.9mm


[6.46in]
164mm
[5.39in]
136.9mm