C3 Series - C320 Data Sheet

- Wide DC range 5-24V
- 20mm (0.8in) LCD display with RGB backlight
- Six 9 segment characters
- Versatile mounting options
- Tough, compact polyester overlay
- rinLINK connector
- NTEP certified for conformance (23-090)

The C320 is Rinstrum's latest compact panel mount indicator that is ideal for use in mobile applications such as forklifts, platforms, inside truck cabs, crane scales and OEM applications. Ideal for basic weight-control or level-control functions using the general or advanced setpoints and checking weighing. Both functions offer an improved operator interface with the multi-coloured backlight. Like the R3 Series the C320 can be combined with a desk mount or IP65 boot to make a full housing unit that can be used on a desk or pole mounted. The C320 supports a new range of accessory cards. The communication cards offer increased options and expansion cards cover additional functions.

- **Wide DC operation (5-24V)/ USB lead:** to suit a variety of onboard OEM applications. The USB lead eliminates the need for third party power supplies saving on system complexity and cost.
- **Two RS232 bidirectional serial ports:** independently configurable for network, printing or remote display functions.
- **Inputs and Outputs:** Two digital inputs and two high-side digital outputs that are electrically isolated. Outputs are capable of driving low voltage DC actuators directly
- **Onboard data storage:** compliant to WELMEC 7.2 (alibi memory DSD)
- **rinLINK:** magnetically coupled link on front fascia for easy access in situ for updates/setup of the indicator, saving the installer time and effort.
- **Flush polyester overlay with mechanical keys:** no membrane key to wear out, easy to keep clean, fully sealed, durable chemical resistance, improves uv resistance.
- **Printing:** Multiple standard print dockets through to fully programmable print formats that can be easily created with the drag and drop configuration tool rinPRINT.

Advanced Setpoints

The C3 instruments support up to 8 setpoints with setpoints 1 and 2 linked to the onboard digital outputs. Setpoint status can be used to drive the onboard outputs directly, sound the buzzer, change display backlight colour or can be transferred to external control systems using modbus RTU or through field bus expansion. Setpoint functions include:

- OVER/UNDER target
- CHECKWEIGH: OVER, UNDER, PASS
- Status (motion, zero, net)

Setpoint outputs can be latched and reset from remote inputs or external control.

Smart Weighing

The C320s bright, vivid backlight changes colour automatically as the pre-assigned target weights are reached.

The operator knows immediately when they've reached the acceptable weight range based on the blue, green, or red color changes for UNDER, ACCEPT, or OVER weights.

... now that's smart weighing!

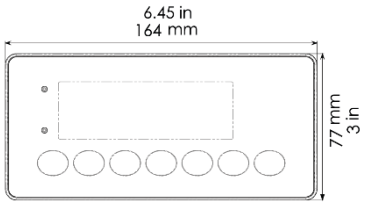
C320 Specification Table

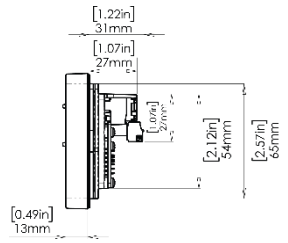
C320 (K306)		
Resolution		Up to 100,000 divisions, minimum of 0.1uV/division Trade: Up to 10,000 divisions, minimum of 0.33uV/division - pending
Zero Cancellation		± 2.0mV/V
Span Adjustment		0.1mV/V to 5.0mV/V full scale
Excitation		5V for up to 8 x 350-ohm load cells (4-wire or 6-wire plus shield) Max total load cell resistance: 3,500Ω
A/D Type		24bit Sigma Delta with 8,388,608 internal counts 50 updates/second
Operating Environment		Temperature: –10° to +50C ambient (14° to 122° F), Humidity: <90% non-condensing, IP65 when panel mounted
Display		RGB Backlit LCD with six 20mm (0.8") high digits with units and annunciators, 9 segment
Setup and Calibration		Fully digital with visual prompting in plain messages
Digital Filter		IIR low pass filter
Zero Range		Selectable from ± 2% to ± 100% Full Scale
Standard Power Input		5 to 24VDC, 4.8, 9.6,12 and 24V batteries (2.5 VA max) ON/OFF key with memory feature
Variants	**AC**	AC Plug pack: 110/240VAC 50/60Hz in 12VDC 1.5A out
	Battery	4 x AA batteries (G Version or using M6001 accessory)
Case Materials		Resin alloy
Keys US Region		Power/ Zero/ Tare/ Select/ Units Switching (lb/ kg/ oz/ g/ t/ TN/ lb:oz/custom) plus two assignable function keys
Keys ROW Region		Power/Zero/Tare/Select plus three assignable function keys
Battery Backed Clock Calendar		Battery life 10 years minimum
Packing Weights		Panel Mount Indicator: 0.25kg (9oz), Full Housing: 0.42kg (14.8oz)
Optical Data Communications		rinLINK - magnetically coupled infra-red communications Conversion cables available for USB
Serial Outputs		2 x RS232 automatic transmit, network or printer outputs. Transmission rate: 2400-115200 baud
Input/Outputs		2 isolated, smart FET outputs (400mA total at 50VDC)
		2 isolated inputs
Set points		8 setpoints with setpoints 1 and 2 linked to the onboard digital outputs
Data Storage		Alibi WELMEC 7.2 DSD – EU Region CSV Log – Rest of World
Firmware Features		
Firmware features		Custom printing, accumulation, counting, check weighing, manual hold, peak hold, medical and livestock filtering, mimic/remote display, advanced set pointing including latching outputs, x10 mode HiRes, mV/V calibration, ring network (rinCMD), linearisation, auto tare
Accessory Cards		
Communications cards		RS485, RS232, Current loop
Expansion cards		Analogue output 4-20mA, 0..10V, isolated 16 bit output Ethernet IP, Profinet, Modbus TCP, EtherCat Wi-Fi/Bluetooth

Specifications may change at any time without notice.

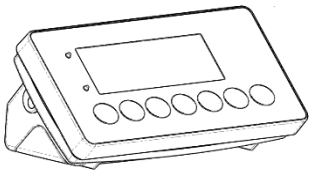
NORDIC TRANSDUCER www.ntt.dk e-mail: ntt@ntt.dk

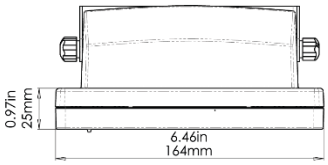
C320 Panel Mount

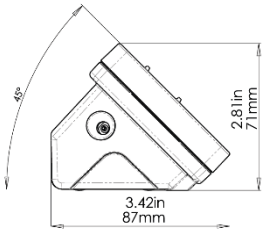




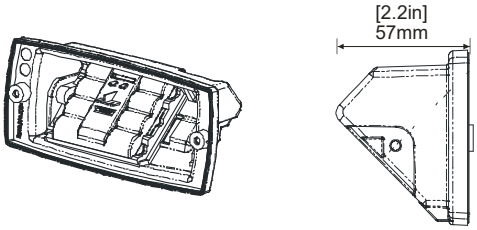
C320 with 4AA Battery Boot/ Desk Stand (Version -G)







C320 Black Boots



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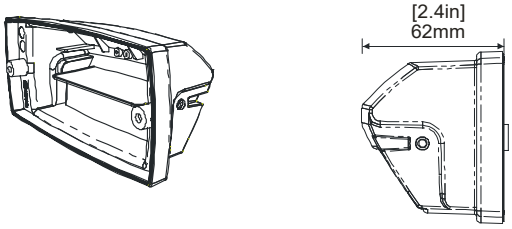

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C320 Brackets

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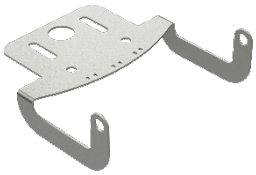

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Specifications are subject to variation for improvement without notice. Illustrations are indications only and variation may be evident between products.