Forklift / Pallet Jack Scales

TABLE OF CONTENTS

CLS Series.....412
Forklift Scale

CLS-680.....415
Forklift Scale Display

CLS-920i®.....416
Forklift Scale Display

VIRTUi®3.....417
PC-Based Program for CLS Series Forklift Scale

RL-HPJ.....418
Hand Pallet Jack Scale

Product names, logos, brands and other trademarks featured or referred to within this publication are the property of their respective trademark holders.

CLS Series

Forklift Scale

Approvals

Part Number/Price

Part #	Size, Capacity	Class II Forklift Compatibility	Est. Weight	Price
CLS Forklift Scale, CLS-680				
201300	5,000 lb × 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures) 9 to 36 VDC	530 lb	$9,140.00
CLS Forklift Scale, CLS-920i				
162282	5,000 lb × 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures) 10 to 60 VDC	539 lb	$9,980.00
CLS Forklift Scale, VIRTUi^3 M Series				
194714**	5,000 lb × 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures)	525 lb	$8,470.00
CLS Forklift Scale, VIRTUi^3 IM Series				
191748**	5,000 lb × 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures)	525 lb	$9,020.00

***Weight indication device (PC/tablet) is not included; consult factory to verify compatibility with your device*

Options/Accessories

The options and replacement parts below are available to use for the part numbers referenced above.
To order replacement parts and options for products purchased prior to this catalog, contact the factory for assistance.

Part #	Description	Price
Consult	28 in wide scale base for Class II carriage instead of 34 in Class II scale base	N/C
Consult	38 in wide scale base for Class III carriage instead of 34 in Class II scale base (Non-NTEP certified)	$3,500.00 adder
Consult	Cableless option, order upgrade that also includes two batteries and charger	$1,850.00 adder
Consult	Bluetooth® option for CLS-680	N/C
Consult	Bluetooth® option for CLS-920i	$495.00
Consult	Bluetooth® option for CLS-M/IM	$695.00
Consult	Wi-Fi option for CLS-680	N/C
Consult	Wi-Fi option for CLS-920i	$650.00
166161	Power line filter	$116.00
167498	Cable, 2 m extension	$210.00
188193	Calibration hook set	$290.00
120160	1,000 lb forklift weight	$2,800.00
120162	2,000 lb forklift weight	$8,275.00

Standard Features

Scale Carriage

- 28 in (Class II), 5,000 × 5 lbs, NTEP Certified
- 34 in (Class II), 5,000 × 5 lbs, NTEP Certified
- 38 in (Class III), 8,000 × 5 lbs, non-NTEP
- 1-1/2 in thick front and back painted steel plates coupled by four flexures
- Top cleats are welded, pinned and bolted
- Welded centering pin
- Two 5,000 lb s-beam load cells
- iQUBE$^{2®}$ junction box with inclinometer
- Molded coiled cable, up to 15 ft uncoiled

Presale Requirements

- Provide completed forklift questionnaire for quotation
- Compatible with most Class II and Class III forklift attachments, consult factory
- Forklift carriage size (Class II, Class III, other)
- Forklift carriage width (is it greater than 36 in?)
- Does the forklift have a load backrest?
- Does the forklift have any existing attachments?
- Supply power for scale instrumentation (12 VDC, other)

Installation Recommendations

- When installing a forklift scale on an electric forklift, static discharge protection must be present on the forklift and install a chassis mount power conditioner to protect scale electronics.
- When installing a forklift scale, OSHA requires the end user to de-rate the lift capacity of the forklift.

Specifications

Warranty:
Two-year limited

Approvals:
NTEP 06-074 Class III, 5,000 x 5
Measurement Canada AM-5893, Class III, 4,500 x 5

An ISO 9001:2015 Accredited Company ©2023 Rice Lake Weighing Systems 7/23 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CLS Indicator

CLS-680 (page 415)

The CLS-680 was designed from the ground-up specifically for forklift applications. With a machined aluminum anodized enclosure, the CLS-680 is ideal for demanding, general-purpose forklift applications. Its compact size is attached with a RAM® mount for flexible positioning and minimal obstruction. Additional features include rounded corners, vibration protection and surge suppression.

- Six-digit, seven-segment LED display
- Battery backed time & date
- On/Off power switch
- 9 to 36 VDC power supply
- Cabled or cableless
- RS-232 serial port
- Wi-Fi
- Bluetooth®

CLS Indicator

CLS-920i (page 416)

The CLS-920i ncorporates the flexibility, intelligence and programmability of the 920i in a smaller enclosure with a DC power supply for use on forklifts. The standard program offers weight indication, configuration, calibration and diagnostics specific to the CLS. Customize it for your application with an optional user program.

- Painted mild steel enclosure
- Backlit graphical LCD display
- Battery backed time and date
- On/Off power switch
- 10 to 60 VDC power supply
- Cabled or cableless
- Two available RS-232 ports for added options
- Optional Wi-Fi
- Optional Bluetooth®

CLS Virtual Solution

VIRTUi^3 (page 417)

Weight data is displayed on a device using VIRTUi software, creating a virtual indicator. The CLS connects to your device using RS-232, USB or Bluetooth®. Choose between the CLS-M or CLS-IM configuration for static or in-motion use.

- Weight indication device (PC/tablet) is not included
- Consult factory to verify compatibility with your device
- Bluetooth® connection available
- USB connection available

Cableless

The cableless option removes the coiled communications/power cable between the scale and the indicator. A rechargeable battery is secured to the scale and it powers the scale and the paired wireless modules provide communication.

- 802.15 wireless interface
- Lithium-ion battery and charger
- On/Off power switch
- Battery life: 24 hours of constant use
- Battery recharge time: 8 hours to fully recharge
- Reinforced battery box welded to top cover

Wi-Fi

Wi-Fi is a standard feature for the CLS-680 and is available as a factory installed option for the CLS-920i.

- Wireless LAN card 802.11 b/g
- Range: Up to 328 ft indoors
- Operating frequency: ISM 2.4 GHz

Bluetooth®

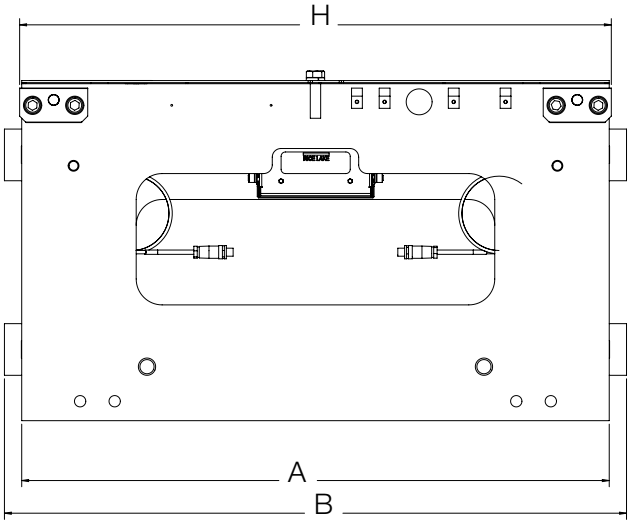
Bluetooth® communication is a standard feature for the CLS-680 and is available as an external option for the CLS-920i. It is also available in a communications/power box for the virtual solution.

 ©2023 Rice Lake Weighing Systems 7/23 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

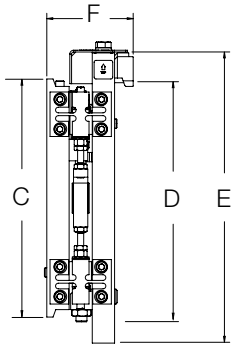
Dimensions

CLS Class II			
28 in, 5,000 lb			
A	28.00 in (711 mm)	E	19.50 in (495 mm)
B	30.00 in (762 mm)	F	4.49 in (114 mm)
C	16.00 in (406 mm)	G	21.80 in (554 mm)
D	16.29 in (414 mm)	H	28.24 in (717 mm)
34 in, 5,000 lb			
A	34.00 in (864 mm)	E	19.50 in (495 mm)
B	36.00 in (914 mm)	F	4.49 in (114 mm)
C	16.00 in (406 mm)	G	21.80 in (556 mm)
D	16.29 in (413 mm)	H	34.24 in (870 mm)

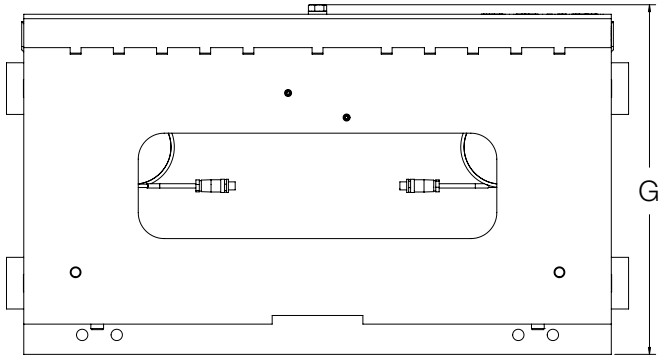
38 in, 8,000 lb			
A	38.00 in (965 mm)	E	24.50 in (622 mm)
B	40.00 in (622 mm)	F	6.04 in (153 mm)
C	20.00 in (508 mm)	G	26.68 in (678 mm)
D	20.15 in (512 mm)	H	38.00 in (965 mm)



Front view



Side view



Rear view

Forklift Capacity Derating

During the initial scale installation, remind the customer that they must have an updated ID plate on the forklift stating the new lifting capacity and center of gravity information. This is required per OSHA rules and regulations.

	28 Inch	34 Inch	38 Inch
Vertical center of gravity (VCG) of scale =	8.06	8.06	10.15
Horizontal center of gravity (HCG) of scale =	2.09	2.09	2.83
Effective thickness (ET) of scale =	4.55	4.55	6.06
Weight of scale =	392	420	987

An ISO 9001:2015 Accredited Company ©2023 Rice Lake Weighing Systems 7/23 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

Replacement for CLS-420

CLS-680

Forklift Scale Display

Standard Features

- LED display
- Battery backed time and date
- Full numeric keypad
- Numeric keyed entry allowed for tare
- Formattable tickets
- CLS user modes
- Machined aluminum enclosure with rounded corners
- Wi-Fi standard
- Bluetooth® standard
- Embedded antenna
- RAM® style mount ability
- M16 connector, CLS scale connection
- M12 connector, RS-232
- Power cable connector
- PreVent™ breather vent
- Illuminated power switch

Options

- Cableless interface to CLS with Zigbee module
- RAM style mounts
- Molded M12 serial cables

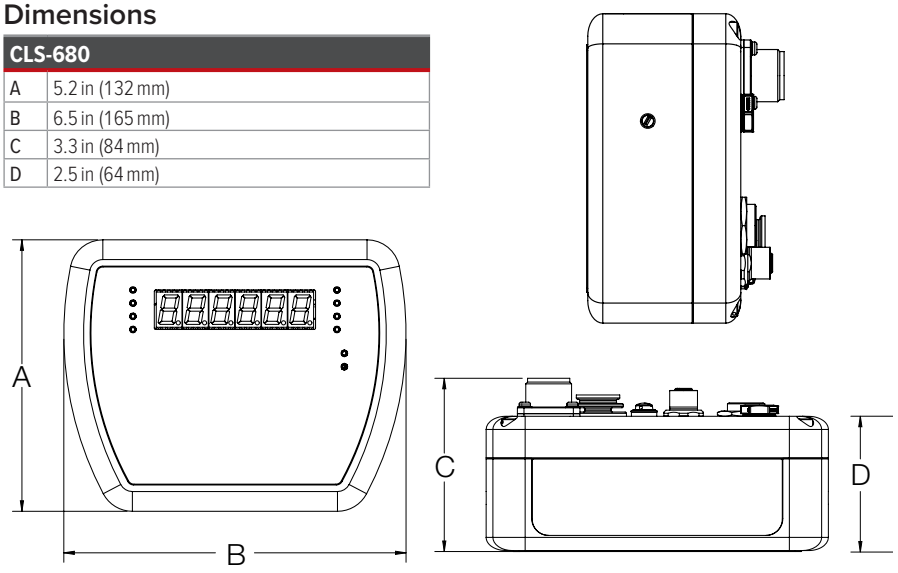
Approvals

Part Number/Price

Part #	Description	Price
206439	CLS-680 indicator 9 to 36 VDC	$1,310.00
204239	CLS-680 indicator 18 to 72 VDC	$1,560.00

Dimensions

CLS-680	
A	5.2 in (132 mm)
B	6.5 in (165 mm)
C	3.3 in (84 mm)
D	2.5 in (64 mm)



Specifications

Power:
DC voltages: 9 to 36 VDC

Communication Ports:
Two RS-232 full duplex, one reserved for CLS
Bluetooth® SSP
Wi-Fi: Wireless 802.11 b/g/n 2.5 GHz
Zigbee, reserved for CLS cableless option

Annunciators:
10 LED

Display:
Six-digit, 0.5 in tall, seven-segment digits

Keys/Buttons:
Flat membrane panel, tactile feel (18 buttons)

Temperature Range:
Certified: 14 °F to 104 °F (-10 °C to 40 °C)
Industrial: 14 °F to 122 °F (-10 °C to 50 °C)

Dimensions:
(L × W × H)
6.5 × 5.2 × 3.3 in
(165 × 132 × 84 mm)

Estimated Weight:
3.7 lb (1.7 kg)

Material:
Machined aluminum enclosure, anodized finish

EMC Immunity:
EN 50082 Part 2 IEC 61000-4-2,3,4,5,6,8 and 11

Warranty:
Two-year limited

Approvals:
NTEP 21-092, Class III/IIIL, 5,000d

 ©2023 Rice Lake Weighing Systems 7/23 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CLS-920i®

Forklift Scale Display

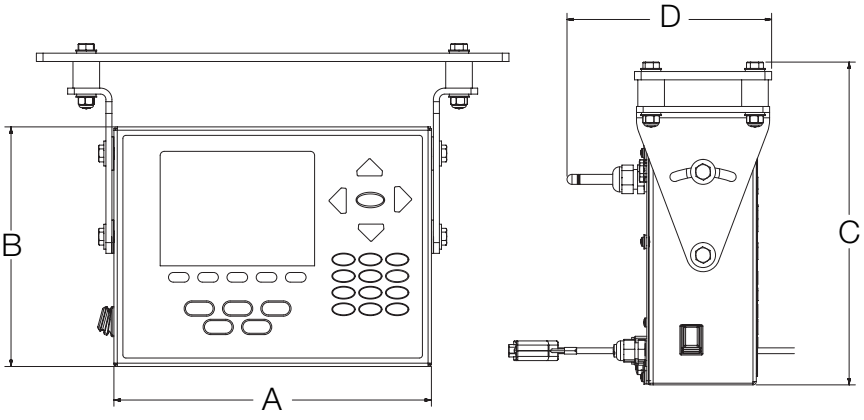
Approvals

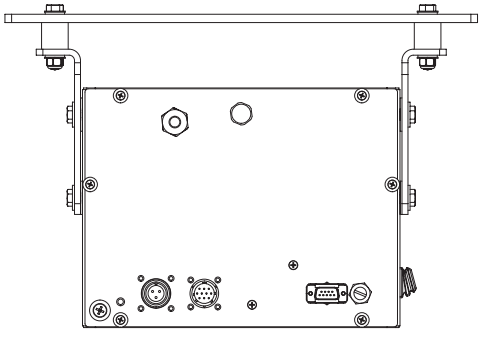
Part Number/Price

Part #	Description	Price
162117	CLS-920i indicator with mounting brackets 10 to 60 VDC	$2,550.00

Dimensions

CLS-920i	
A	9.54 in (242 mm)
B	7.20 in (183 mm)
C	9.71 in (247 mm)
D	5.82 in (148 mm)





Standard Features

- LCD display
- Standard program
  - Weight indication
  - Configuration
  - Calibration
  - Diagnostics
- Front panel calibration
- On/Off switch to conserve forklift battery life
- Painted mild steel enclosure
- Two -piece top cage indicator mounting assembly with vibration mounts
- Two available RS-232 ports for added options of scanner, Wi-Fi or printer
- 10 to 60 VDC power supply for use on gas powered or electric forklifts

Note: For custom user program, please contact the factory

Specifications

Power:
Line voltage: 10 to 60 VDC, DC input

Power Consumption:
1.5 A max fused at 5.0

Temperature Range:
Certified: 14 °F to 104 °F (-10 °C to 40 °C)
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

Wireless LAN Option:
Contains FCC ID: R68WIPORATG
Range: Up to 328 ft indoors
Operating frequency: ISM 2.4 GH

Warranty:
Two-year limited

Approvals:
NTEP 06-074, 5,000 lb only, Class III, 1,000d
Measurement Canada AM-5893, Class III

An ISO 9001:2015 Accredited Company ©2023 Rice Lake Weighing Systems 7/23 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

VIRTUi³

Approvals

Part Number/Price

Part #	Description	Price
188745	VIRTUi³ software	$495.00

Standard Features

- Virtual front panel consists of display and two or three button keypad
- Printer port configuration, serial or TCP/IP
- Provides CLS configuration screen
- Supports CLS diagnostics
- Weight indication screen
- Weight display
- Zero, print and in-motion clear buttons
- Capacity, resolution, units, motion and center of zero status annunciators
- Unit ID
- Configuration, calibration and diagnostics menus
- VIRTUi³ Mini minimized weight display screen

Specifications

Minimum System Requirements:
Windows® 8.1 or greater
Serial port connection to CLS Series forklift scale
Additional serial ports are required for connections to printers/remote displays 100 MB space needed
8 GB or greater RAM

Annunciators:
Units, capacity, resolution, motion, center of zero

Approvals:
NTEP 04-058

RL-HPJ

Hand Pallet Jack Scale

Part Number/Price

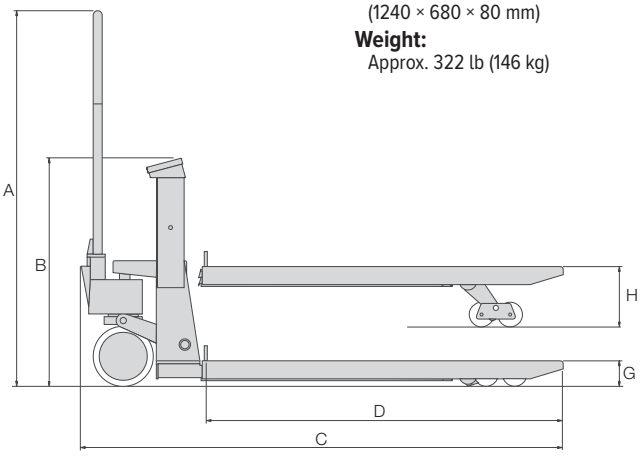
Part #	Description	Est. Weight	Price
183592	Pallet jack scale RL-HPJ, 5000 × 1 lb	295 lb	$2,495.00

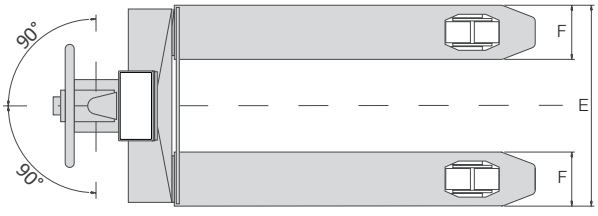
Options/Accessories

Part #	Description	Price
215143	Power supply, 7.2 VDC, 3A SLA battery charger	$132.00
215142	Battery, rechargeable	$158.00
188259	RL-HPJ printer kit	$447.00
182053	Printer paper roll, 57 mm × 30 m, 12 mm core 51 mm OD	$3.00

Dimensions

RL-HPJ			
A	47.25 in (1,200 mm)	E	26.75 in (680 mm)
B	30.00 in (762 mm)	F	7.00 in (178 mm)
C	64.25 in (1,631 mm)	G	3.125 in (79 mm)
D	45.25 in (1,149 mm)	H	7.75 in (197 mm)





Standard Features

- Steering wheels and double loading polyurethane rollers
- Four stainless steel IP68 load cells
- Weight indicator in IP65 stainless steel water-resistant enclosure
- Configuration, calibration and diagnostics from keyboard
- Rechargeable battery mounted on the pallet jack
- Zero and tare functions
- Net/Gross and lb/kg conversion
- Accumulation
- Formulation
- +/- Checkweighing
- Percentage weighing
- Counting (Max. resolution of 1,500,000 divisions)
- Peak hold
- Includes a 115 VAC 50/60 Hz battery charger

Specifications

Battery Life:
80 hours of continuous use or one month of non-continuous use

Display:
1 in (25 mm) LCD display high contrast digits

Capacity:
Maximum lifting capacity 5,000 lb

Accuracy:
± 0.1% of the maximum capacity

Keys/Buttons:
Waterproof membrane keyboard with 17 functional keys

Operating Temperature:
14 °F to 104 °F (-10 °C to 40 °C)

Material:
Heavy-gauge steel with a durable powder coat finish

Fork Dimensions:
48.75 × 26.75 × 3.125 in (1240 × 680 × 80 mm)

Weight:
Approx. 322 lb (146 kg)

An ISO 9001:2015 Accredited Company ©2023 Rice Lake Weighing Systems 7/23 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.