

CLS Series

Forklift Scale



Specifications

Warranty:

Two-year limited warranty

Approvals:

NTEP CC 06-074

Measurement Canada AM-5893

APPROVALS



The CLS Series forklift scale mounts directly to most Class II and Class III forklifts, saving material handling processes time and money. The CLS can be paired with a device for weight display through a cable or cableless connection. The weight display can either be a Rice Lake Weighing Systems indicator designed for the CLS or virtually through a device that supports the VIRTUi³ software application. For connection to peripheral equipment, there is also optional USB, Bluetooth® and Wi-Fi connection available.

Standard Features

Scale Carriage

- 28 in (Class II), 5,000 x 5 lbs, NTEP Certified
- 34 in (Class II), 5,000 x 5 lbs, NTEP Certified
- 38 in (Class III), 8,000 x 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
- iQUBE²® 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

Required System Information

- 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)
- Maximum mast extension (Under 180 in, Other)
- Any peripheral equipment needed (Example: Printer)

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.

CLS Indicator

CLS-680 (page 408)

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.

- Machined aluminum enclosure with anodized finish
- Six-digit, seven-segment LED display
- Battery backed time & date
- On/Off power switch
- 9-36 VDC power supply
- Cabled or cable-less
- RS-232 serial port
- Wi-Fi
- Bluetooth®

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

CLS Indicator

CLS-920i (page 409)

The CLS-920i is a version of the 920i specifically designed for the CLS. It incorporates 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
- 10-60 VDC power supply
- Cabled or cable-less
- Two available RS-232 ports for added options
- Optional Wi-Fi
- Optional Bluetooth®

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

CLS Virtual Solution

VIRTUi³ (page 410)

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.

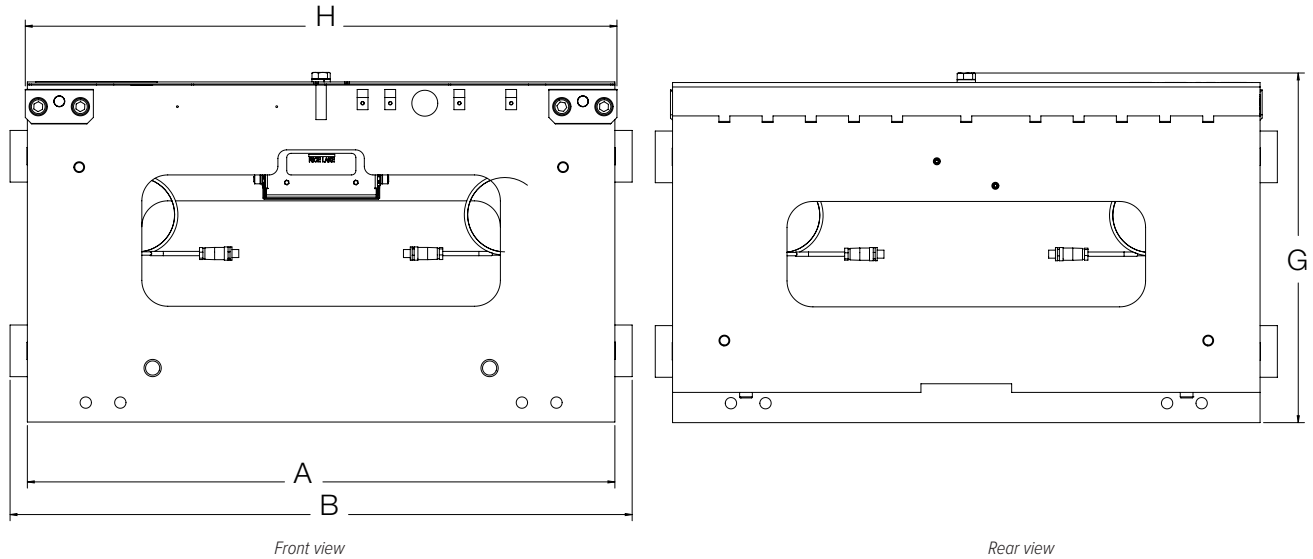
- Weight indication device (PC/tablet) is not included.
- Consult factory to verify compatibility with your device.
- Bluetooth® connection available
- USB connection available

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.

CLS Series

Forklift Scale



CLS Dimensions 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)

CLS Dimensions Class III

38 in, 8,000 lb

A	38.00 in (965 mm)	E	24.50 in (622 mm)
B	40.00 in (914 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)

Forklift Capacity Derating

The following offer the details for such calculations.

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

CLS Series

Forklift Scale

Part Number/Price

Part #	Size, Capacity	Class II Forklift Compatibility	Est. Weight	Price
CLS Forklift Scale, CLS-680				
201300	5,000 lb x 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures) 9-36 VDC	530 lb	Consult
CLS Forklift Scale, CLS-920i				
162282	5,000 lb x 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures) 10-60 VDC	539 lb	Consult
CLS Forklift Scale, VIRTUI³ M Series				
194714**	5,000 lb x 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures)	525 lb	Consult
CLS Forklift Scale, VIRTUI³ IM Series				
191748**	5,000 lb x 5 lb NTEP Certified	34 in W, 16 in H forklift carriage (36 in W with flexures)	525 lb	Consult

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

Options/Accessories

The following 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)	Consult
Consult	Cableless option, order upgrade that also includes two batteries and charger	Consult
Consult	Bluetooth® Option for CLS-680	N/C
Consult	Bluetooth® Option for CLS-920i	Consult
Consult	Bluetooth® Option for CLS-M/IM	Consult
Consult	Wi-Fi option for CLS-680	N/C
Consult	Wi-Fi option for CLS-920i	Consult
Consult	DC to DC converter, chassis mount	Consult
166161	Power line filter	Consult
167498	Cable, 2 m extension	Consult
188193	Calibration hook set	Consult
120160	1,000 lb forklift weight	Consult
120162	2,000 lb forklift weight	Consult