



- NEMA 4
- Surface mount components

GP-4



- NEMA 4/7/9
- Surface mount components
- Hazardous area approved

Mark-4

Features and Benefits

Silos up to 100 ft (30.5m)
Large range of silo heights can be accommodated

1 cm (0.39 inches) Resolution
Accurate readings

Isolated 4-20mA Output with Adjustable Span (Reversible)
No loop isolator is required when connecting to a PLC or DCS

RS-485 Communication
MODBUS protocol

Remote Display Programmer with Keypad

- 4-line x 20-character backlit LCD display
- Programmable sensor names and ranges
- Enable/Disable network addresses



Remote Display/Programmer

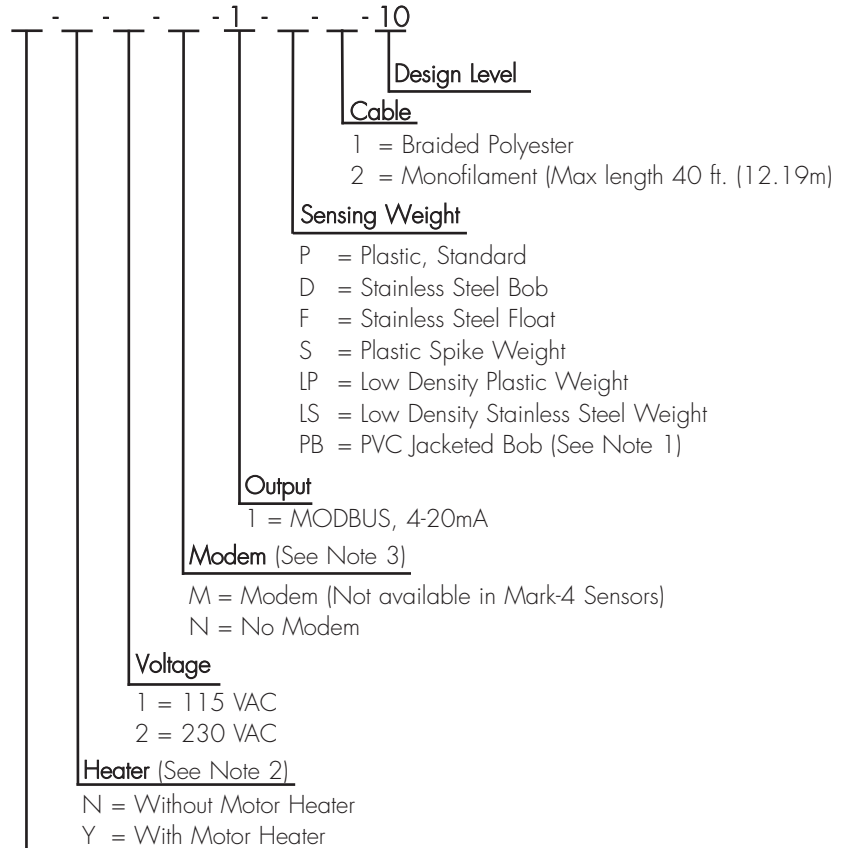
See inside for ordering and specifications.

The GP-4 and Mark-4 Yo-Yo® sensors are designed to provide accurate and reliable inventory management information for tanks and silos.

The GP-4 is housed in a NEMA 4 enclosure. The Mark-4 Yo-Yo® sensor is housed in a NEMA 4/7/9 enclosure. The Bindicator remote display/programmer can request readings, monitor up to 99 GP-4 and Mark-4 sensors, and program silo parameters. The display/programmer allows a user to configure a single sensor or a whole system. An adjustable autotimer allows the user to set automatic measurement cycles ranging from 2 minutes to 1 week. While in operating mode, the display will show the sensor address, sensor name, measurement in the specified units, percentage, display mode and the status of the current device.

In addition, both the GP-4 and Mark-4 sensors can be interfaced to a PC using *i-LEVEL™* software. *i-LEVEL™* provides all the capabilities of the display/programmer plus the added ability to trend historical data.

How to Order



GP-4 & Mark-4 Yo-Yo®

LB4-4 = GP-4 (NEMA 4)
LHY-7 = Mark-4 (NEMA 4/7/9 Explosion proof/Dust Ignition Proof (See Note 4))

- Note 1:** Specify monofilament cable.
- Note 2:** For operation below 32° F (0° C).
- Note 3:** Maximum one modem allowed per system.
- Note 4:** UL approved to CSA standards

Specifications

Power Requirements:	115 VAC or 230 VAC
Power Consumption:	Quiescent: 115 VAC, + 10%, 50/60 Hz, 4 watts (with power to remote display) Operating: 115 VAC, + 10%, 50/60 Hz, 32 watts (with heater, add 10 watts to above)
Operating Temperature:	32° F to 120° F (0° C to 49° C); with heater: -31° F to 120° F (-35° C to 49° C)
Measurement Span:	Up to 100 ft standard
Repeatability:	2 cm (0.8 in)
Resolution:	1 cm (0.39 in or 0.033 ft)
Analog Output:	4-20mA optically isolated (user sourced) into 600 ohms maximum
Communication:	RS-485 MODBUS Optional integral modem
Enclosure Material:	Frame: Minlon® (GP-4) Cover: low density polyethylene (GP-4) Polyester coated, cast alum. housing (Mark-4)

Enclosure Rating: NEMA 4 (GP-4)
NEMA 4/7/9 (Mark-4)

Mounting: 3" NPT

Conduit Entry: 2 each 3/4" NPT (GP-4)
3 each 3/4" NPT (Mark-4)

Weight: 13 lbs (6 kg) (GP-4)
26 lbs (12 kg) (Mark-4)

Air Purge Connection: 1/4" NPT

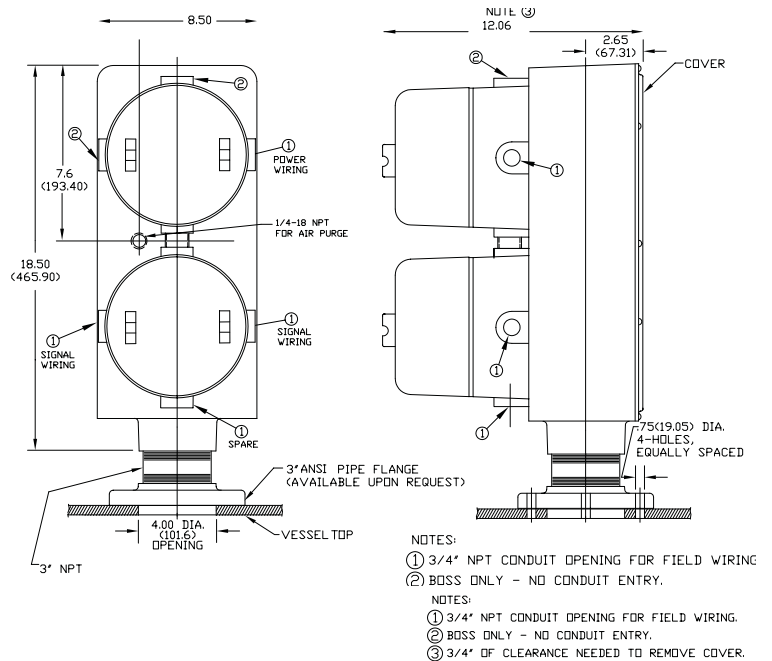
Cable: Braided polyester; monofilament (liquid/solid interface)

Automatic Timer: From 2 minutes to 9999 minutes (approximately 1 week)

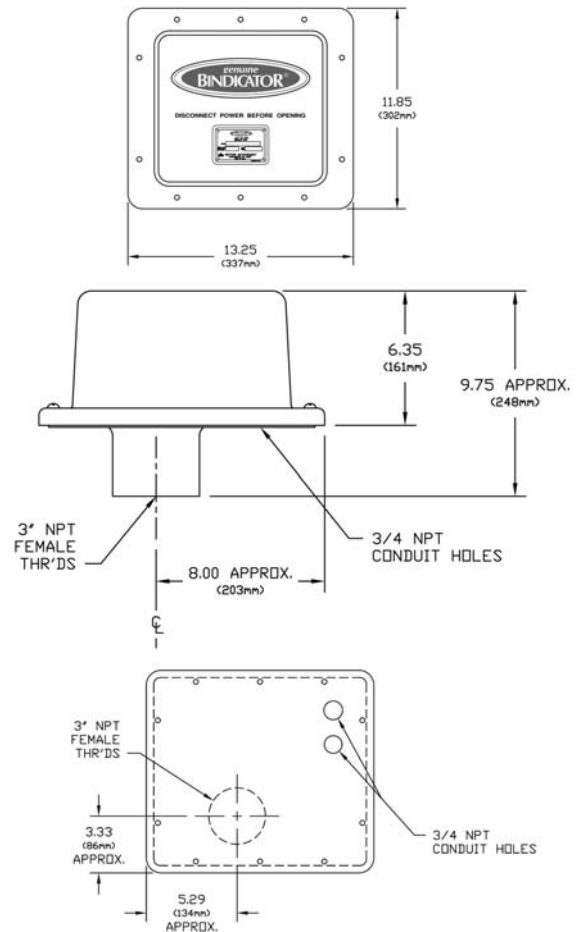
Approvals GP-4: UL, FM, CSA, CE

Hazardous Location Approvals Mark-4: FM, CSA, CE, and ATEX-Dust

Mark-4



GP-4





The display/programmer allows a user to configure a single sensor or a whole system. An adjustable autotimer allows the user to set automatic measurement cycles ranging from 2 minutes to 1 week. While in operating mode, the display will show the sensor address, sensor name, measurement in the specified units, percentage, display mode and the status of the current device.

Features and Benefits

Remote Sensor Set-up and Configuration
Allows end user to set-up system from any location

Remote Measurement Request and Display
Monitors up to 99 sensors from up to 4000 feet

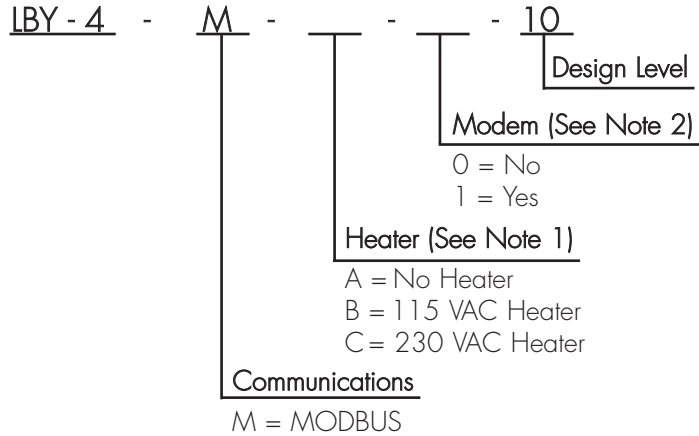
4-line x 20 Character Backlit LCD Display
Easy to read level, sensor name and status

RS-485 Communication
MODBUS protocol

Optional Integral Telephone Modem
Allows users to access information via remote PC

Optional Heater
Keeps system running smoothly in temperatures below -4° F (-20° C)

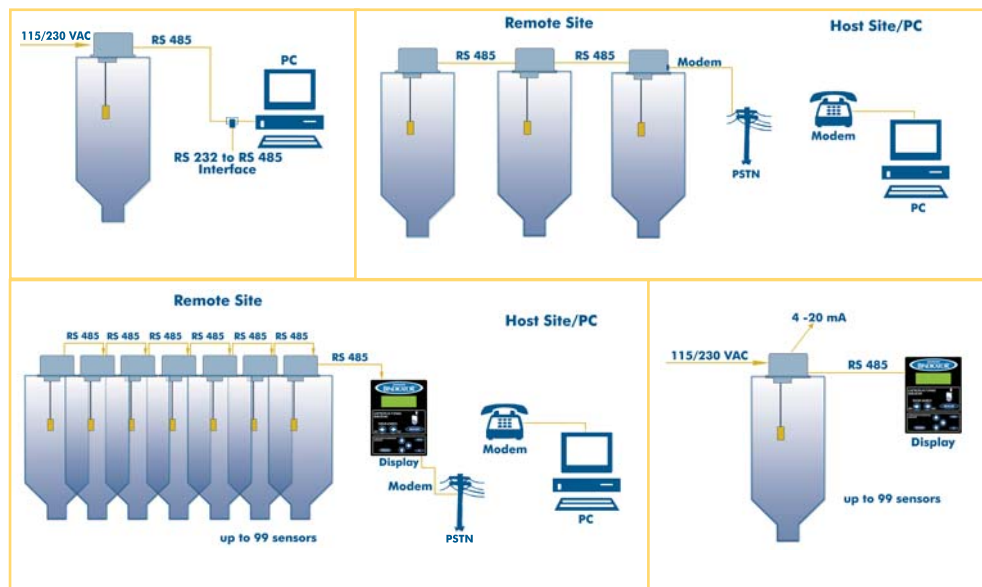
How to Order



Note 1: For operation below -4°F (-20° C)

Note 2: Maximum one modem allowed per system

System Configuration



Specifications

Remote Display/Programmer

Power Requirements: Powered from Yo-Yo® sensor (9-24 VDC); with optional heater, 120/240 VAC required

Operating Temperature: -4° F to 158° F (-20° C to 70° C); with optional heater: -40°F to 158°F (-40° C to 70° C)

Communication: RS-485 MODBUS
Optional integral modem

Sensors: Up to 99

Display: 4 lines by 20 characters backlit LCD display

Keypad: NEMA 4X soft-touch

Enclosure: NEMA 4X molded fiberglass polyester

Communications

Wiring Requirements: Belden® 9842, 4-wire, shielded cable recommended

Wiring Distance: 4000 ft maximum

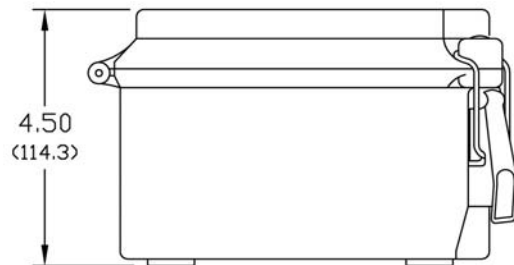
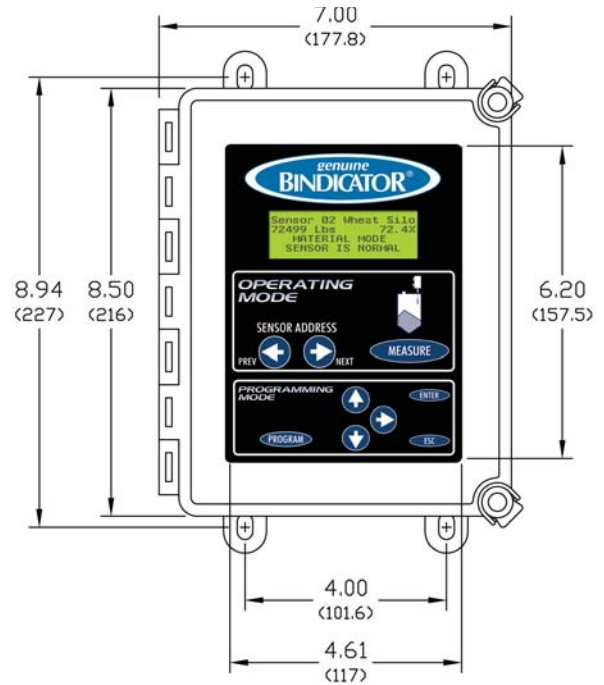
Speed: 115 Kbps

Protocol: MODBUS

Interface: RS-485

Internal Modem: Optional 56K Modem

Dimensions



hLEVEL inventory management software is available for this product. See specification sheet LBY 280187.



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