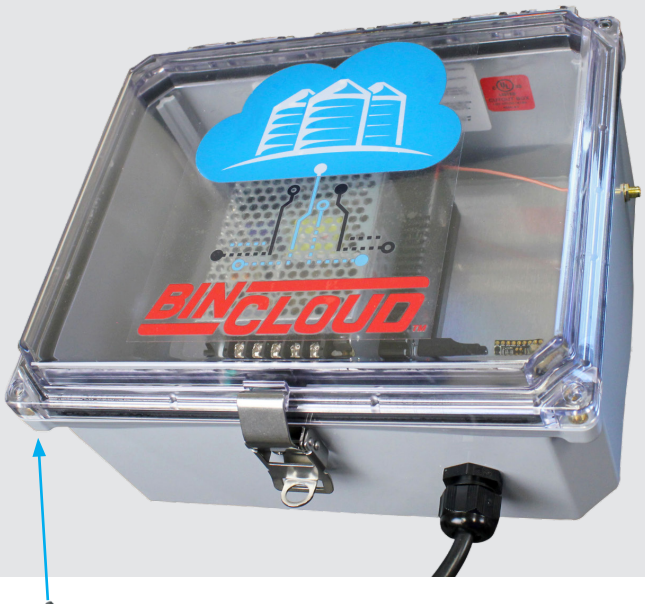
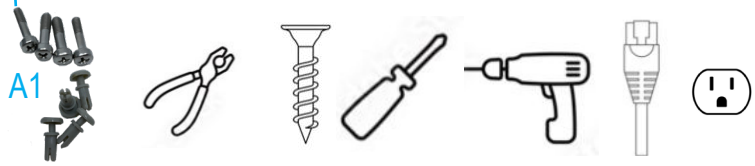


BINMASTER

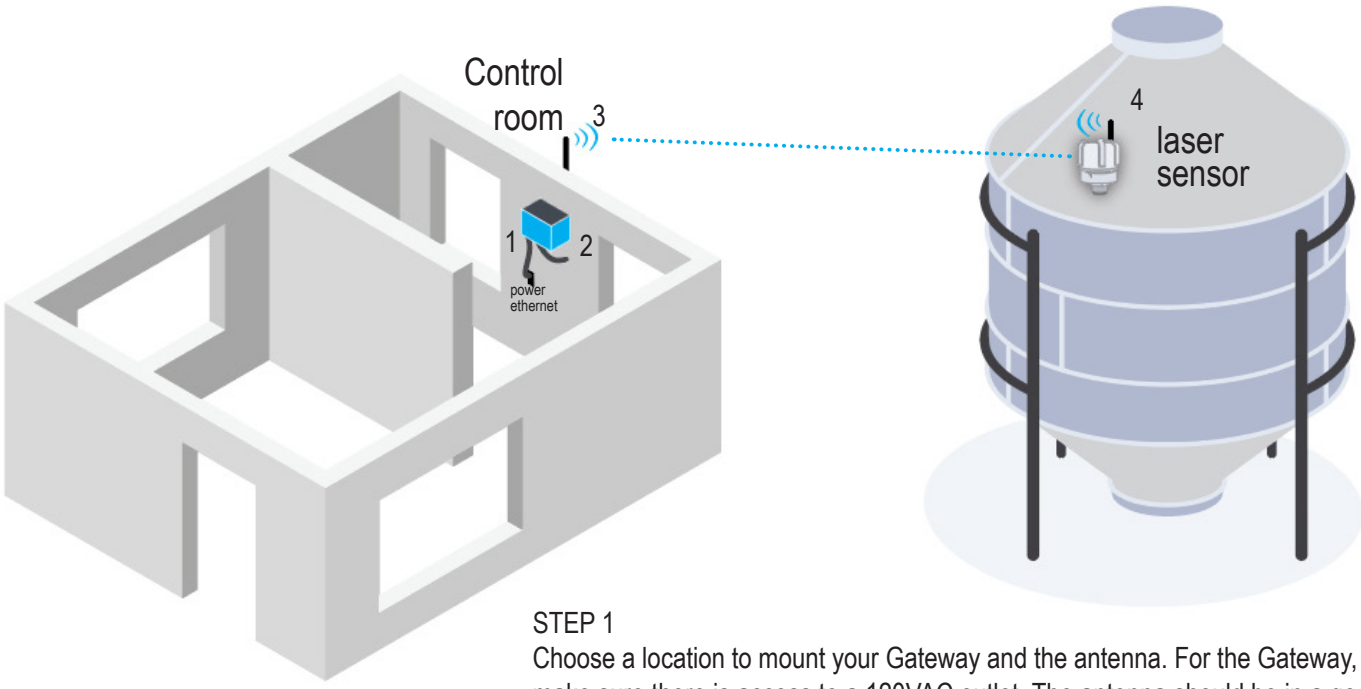
QUICK SETUP GUIDE

BCGW.02LLC-DPM500

BINCLOUD GATEWAY



Tools needed: drill and bit, phillips screwdriver, drywall/ wood screws, ethernet cable, pliers. Screws and plastic plugs, A1, can be used to secure the top cover.



STEP 1

Choose a location to mount your Gateway and the antenna. For the Gateway, make sure there is access to a 120VAC outlet. The antenna should be in a good line-of-sight to sensors within 20 feet of the Gateway location.

1. Gateway (with cellular antenna, ethernet also an option)
2. Wire through wall to antenna
3. Antenna mounted outside with line of site to sensor (wired to Gateway)
4. Sensor mounted on vessel

STEP 2

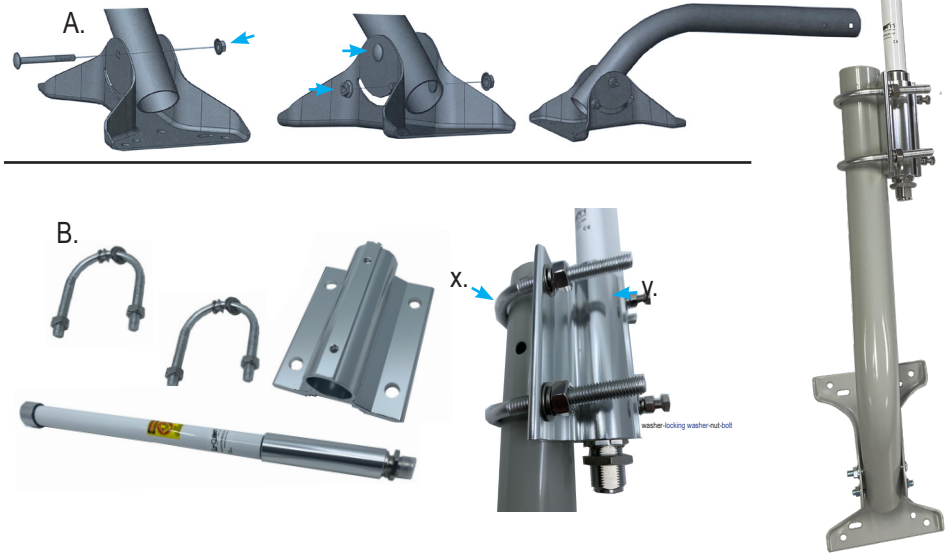
Attach mount brackets to the enclosure with the included screws. Brackets fit on protruding screwholes on the back of the enclosure. Then, use drywall screws and attach unit to the wall location.

STEP 3
Assemble the antenna with mounting hardware.

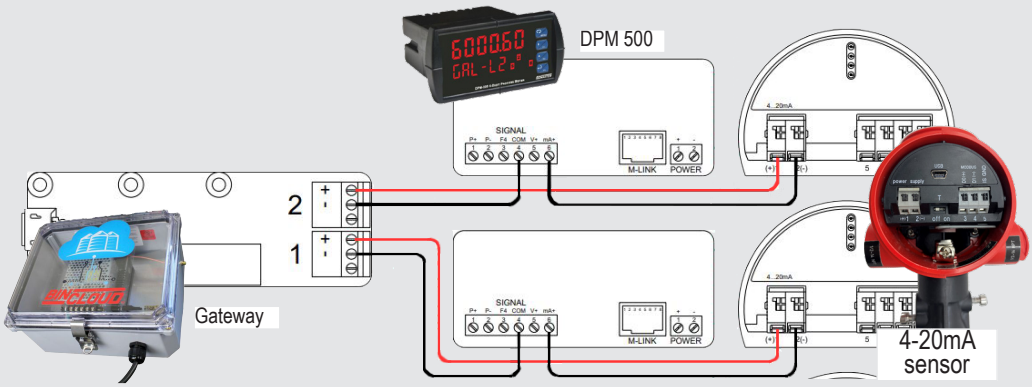
A. Attach the curved mount pipe to its base with the smooth bolt on top and two small bolts and nuts on the swivel bottom.

B. Using U-bolts as shown attach antenna mount to mount pipe (x). Then insert small screws on top of mount to hold antenna in place (y).

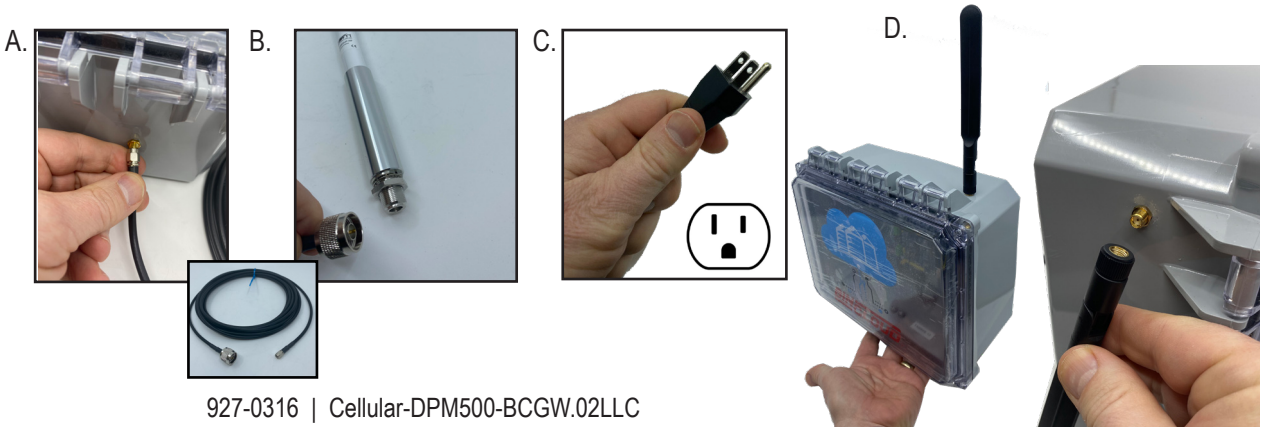
C. Mount the antenna outside, in a location (Step 1) within a good line-of-sight to your sensor(s) . Remember the cable between the Gateway unit and the antenna should be less than 20 feet or ask your BinMaster rep for an extension.



STEP 4
1. Open the Gateway cover and find the 4-20mA adapter terminal.
2. Connect the Gateway +24VDC" to DPM500 mA+(6)
3. Connect Gateway "INPUT" to DPM500 COM(5)
4. Connect Gateway +24VDC to sensor D0(+)
5. Connect Gateway GND to sensor D1(-)



STEP 5
A. Connect antenna wire to the top of the Gateway unit.
B. Connect antenna wire to bottom of antenna.
C. Plug Gateway into a 120V outlet.
D. Attach the antenna as shown. This Gateway has been setup with multiNetwork cell connection that will automatically connect when powered. If cell service is unavailable it is possible to connect the Gateway ethernet plug to a network router or switch.
WAY TO GO!
Wait 25 minutes and call BinMaster at 1-800-278-4241 to confirm the internet connection. BinMaster will create a custom cloud page using measurements from your bins, tanks, silos, etc. Check the worksheet on following pages so you can prepare for this conversation.



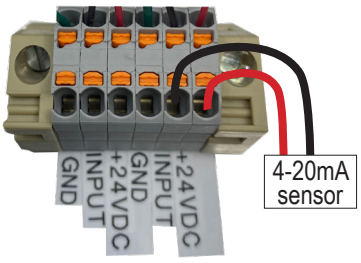
FIREWALL RULES FOR BINCLOUD GATEWAY

Direction Outbound	Ports	For these IPS	IP Addresses
TCP	80, 433		All
UDP	5959-5961		52.38.107.102
	5959-5961		52.25.64.249
	5959-5961		34.221.219.221
	5959-5961		54.218.6.237
UDP	5959-5970		52.39.255.60
			54.71.174.229
			52.88.4.160
			34.217.159.41
			34.213.84.184
			52.43.176.61
			35.162.54.59
			52.42.122.172
			44.224.165.129
			44.226.176.44
			44.237.66.197
			44.238.4.218
			54.184.44.101
			44.228.115.25
			44.230.239.2
			44.236.20.68
			44.236.200.9
			44.236.76.190
			44.239.243.92
			44.240.35.27

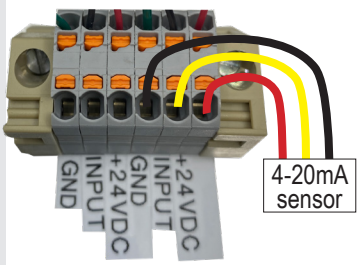
Direction Outbound	Ports	Region	IP Addresses
UDP	20000-40000	USA	All
UDP			54.212.116.92
UDP			52.12.114.120
UDP			52.87.228.243
UDP			3.88.21.119
UDP			34.223.7.202
UDP		Europe	54.93.100.223
UDP			18.195.88.21
UDP			18.184.70.5
UDP		India	15.207.116.15
UDP			13.127.230.228
UDP		SE Asia	13.212.70.205
UDP			13.212.30.222
UDP		Asia	18.182.42.125
UDP			13.230.250.171
UDP			18.179.34.24
UDP		Japan	52.69.206.76
UDP			18.179.57.238

Supplemental info about 4-20mA to USB adapter installed inside the BinCloud Gateway

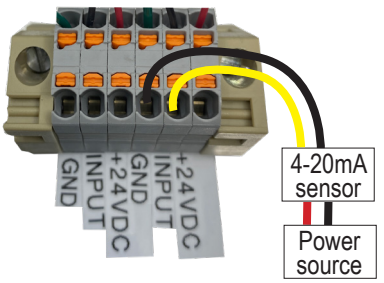
Wiring for a 2-wire sensor, powered by the current loop



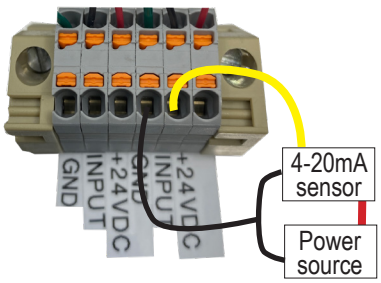
Wiring for a 3-wire sensor, powered by Yocto-4-20mA-Rx (max 80mA)



Wiring for a 4-wire sensor, with an independent power supply



Wiring for 3-wire sensor, with independent power supply with common ground



Measuring a Vessel | Get Ready for BinCloud

In order to calculate material from level readings, we set up BinCloud software with your vessel dimensions. Bins, silos, and tanks vary greatly, so you'll need to provide physical measurements to BinMaster. Here's a handy guide to prepare for the BinMaster call:

Vessel Manufacturer _____ Model #_____Other ID #_____
(if available from paperwork or plate on vessel)

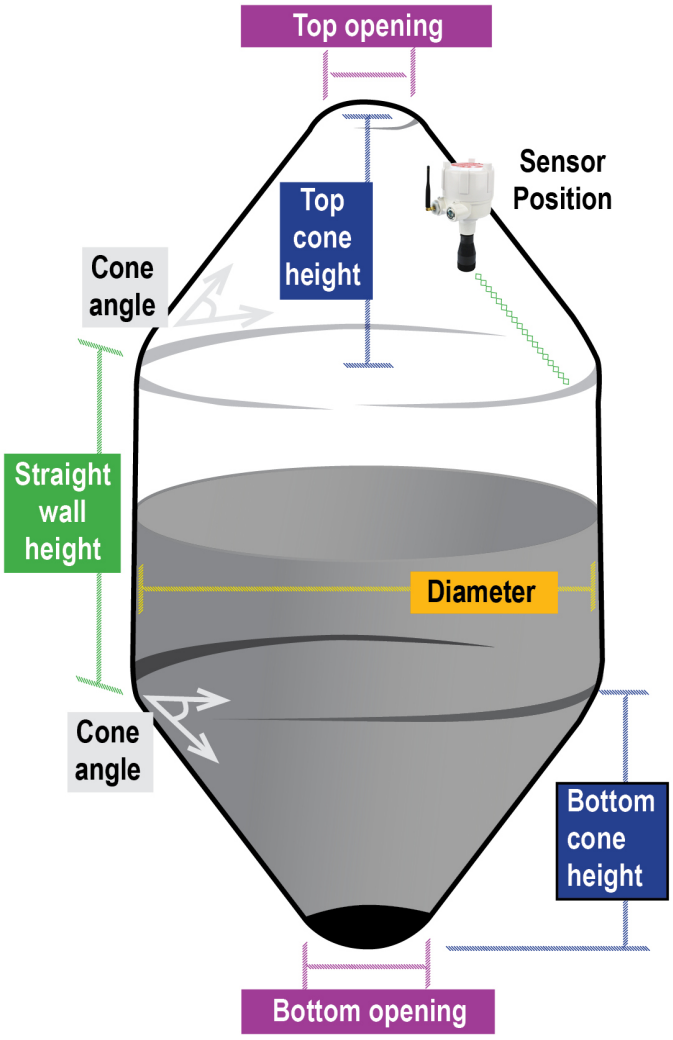
Straight Wall Height: _____
Diameter:* _____
Width*: _____
Length*: _____
Top Cone Angle*: _____
Bottom Cone Angle*: _____

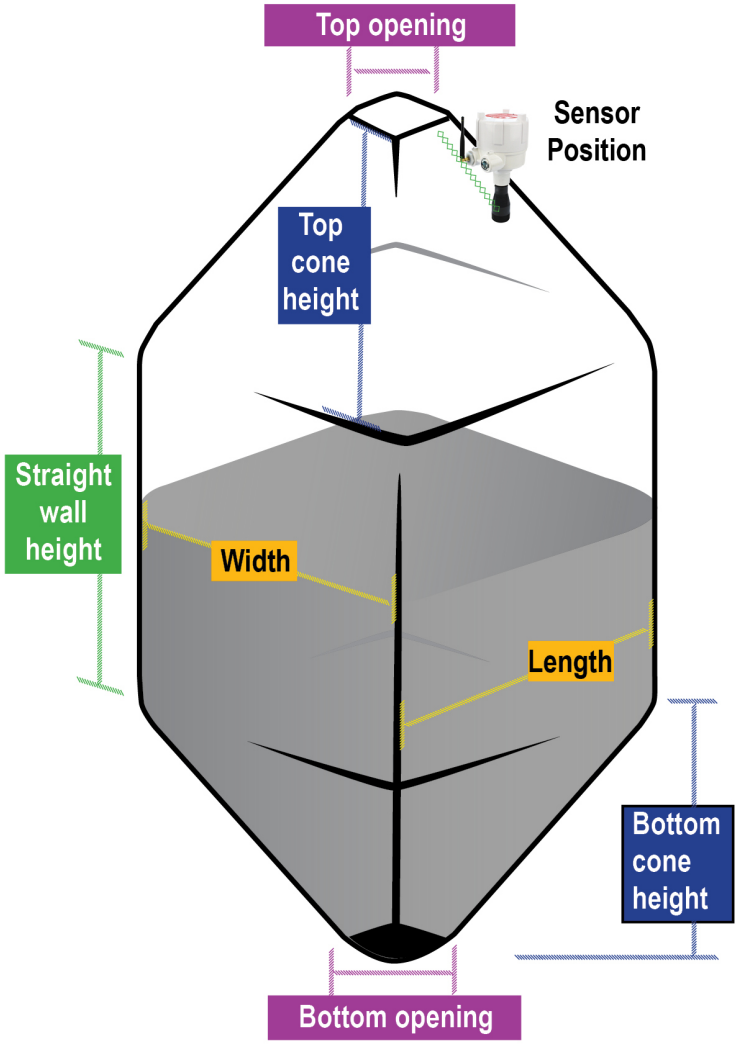
Top Cone Height: _____
Bottom Cone Height _____
Bottom Opening: width: length: _____
Top Opening: width: length: _____
Sensor Position _____
Capacity _____

Sensors 4-20mA

4mA Distance Setting (empty):_____
20mA Distance Setting (full):_____

Many measurements are available through vessel manuals and similar paperwork. Try searching model number and manufacturer name before pulling out your tape measure.
** indicates this measurement needed only if applicable to the vessel shape (see illustration above)*





MORE CONFIGURATIONS ——————→

Measuring a Vessel | Get Ready for BinCloud