

CENTROID PRODUCTS DETAILED ORDER GUIDE 7/25/18

tel: **386-423-3574 (Mary)** between 8a-2p EST Mon/THU (early is best, and do redials if busy)

PART 1: ORDERING RULES

- We ship by UPS only, and only using our own UPS account number.
- We don't ship outside the US. Non-US customers--when you call with your information from this guide, Mary will help you determine the part number and then direct you to a reseller to buy through.
- We don't ship to Florida except for resale (tax cert must be supplied). FL individuals--when you call with your information from this guide, Mary will help you determine the part number and then direct you to a reseller to buy through.
- We are only set up for Visa or Mastercard.

PART 2: SENDER DETAILS

This form will let you collect all the answers that will be needed by Mary when you call. See the detailed instructions, below. The example shown at the bottom of the table is what your entries should look like. **Mary will tell you the current price when you order**, so the amounts on the form are to give an idea of relative costs.

Ln	Liq	Len	a,c	Bat	Output/ for gauge	Mount	Options	=Price	X Qty	Total
A										
B										
C										
D										
E										
F										
ex.	GAS	13.5"	A	12V	240/33 3term VDO 301-505	1/2" FL.	LOW=12.5%, WS	\$85	1	\$xxx
		\$59				\$15	\$8, \$3			

PART 3: DETAILED INSTRUCTIONS

Liq: gas (but not E85--it conducts too well), ds| (onroad), oldds| (offroad/boats), wtr(potable only; we no longer make black/graywater senders)

Len: For straight probe, 5 hole mount: top surface to 1/2" or more off the bottom. For flatted/hex threaded mount: top of tank's threaded fitting to bottom of tank or higher (fitting provides natural 1/2" offset). For bent 5 hole mount (sidemount; no threaded sidemounts): distance from bend to bottom of probe, given 2" from top of tank to opening, to accomodate flange, and at least 1/2" clearance at bottom (the distance from the opening to the bend will be approximately 3"). In all cases: if waterscreen is ordered for fuel probe, your length includes 1/2" of non-sensing screen.

Pricing for gauge senders: 3 to 6"=\$60 fuel/\$62 water, 6+ to 12"=\$62/64, 12+ to 24"=\$64/66, 24+ to 36"=\$71, 36+ to 48"=\$79, 48+ to 72"=\$89, 72+ to 92"=\$150

a,s: For FUEL probes with 5-hole mount: we can use **quarter inch tubing (code A)** instead of half inch if the probe is 24" or less and either your tank opening is less than 1" diameter or you order a customer-bendable sender. For all probes: we prefer you order the needed length. However if you may need to **cut the sender, show code c**. Inch lengths in the following ranges can be shortened to the bottom of that range: 3 to 6, 6+ to 12, 12+ to 24, 24+ to 48, 48+ to 96, 96+ to 192.

Bat: Supply voltage for sender; 12V, 24V, or 32V. Other than our 240/33 2-terminal sender, all our senders require a battery-voltage connection in addition to the normal Send and Negative connections of a float sender.

Output/ for gauge: We make the following outputs to match your gauge: 240/33 ohms, 0/90 ohms, 10/180 ohms, 76/6 ohms, 100/6 ohms, 0/30 ohms, 0/5 volts (eg ISIS), 0/4V (eg for CompuTank displays), 4/20 milliamps. With our new programmable senders, we can do ranges we havent done before if we email you a form so you can make a few measurements for us. When specifying your output range, please also indicate the *brand and part number of your gauge* if possible so we can see if your listed output seems correct.

Dont have a gauge? Try Livorsi (847-548-5900), whose fuel and water gauges work with our 240/33 ohm 2-term senders.

Two-terminal for 240/33 ohms: we can make a 2-terminal sender (no battery connection needed) for 240/33 ohm gauges by

the following manufacturers only: Stewart Warner, Teleflex, Datcon, Livorsi (formerly Gaffrig), US Gauge, OMC. Please indicate 240/33-2T for the 2-terminal sender if your 240/33 gauge is by one of the listed manufacturers. The 3-terminal 240/33 will work with any 240/33 ohm sender, except we make a special sender for the Westberg 240/33. *Detectors, controllers*: we no longer make these alarm-only devices. If all you need is an alarm(s), choose the 0/5V output with the optional alarm output (see below).

Mount: Our standard mount is 5-hole, the SAE bolt pattern, with a nylon holder. We also have three NPT-threaded aluminum holders: 3/8" flatted, 1/2" flatted, 1.5" flatted (and for the 0/5V or 0/4V outputs, or detect/high or detect/low *only*, we have 1/2" hex). We no longer use the method of epoxing bushings to the bottom of our nylon holders. The flatted holders can be wrenched with a 2-5/8" wrench opening; the hex with a 1-5/8". Subtract 1/4" from your thread measurement to get its NPT size (eg 3/4" across threads is called 1/2" NPT). We don't do the 3/4" NPT, 1" NPT, or 1.25" NPT sizes and longer. **Pricing by mount:** 5 hole=\$0, flatted=\$15, hex=\$15

Options:

Fuel water-screens: Water in a fuel tank will bridge between our fuel sender's inner and outer tubes and cause an Empty reading. If you don't want this warning you can buy a water screen. Specify: WS. **Price:** \$4

Factory bends: Specify BEND XXdeg/YY o'clock, where xx is the angle **from straight** (90deg max, single bend). YY is 8:00 if you will drill to match our sender, or is read from our faxed template if you have existing mounting holes. **Price=** \$2

Customer bendable: For FUEL tanks 24" or less, we can make the sender with quarter inch tubing, bendable by the customer. Specify BENDABLE XX", where xx is the inches from head to the intended bend (1/4 of the probe max). The water probes can be bent by the customer easily by heating the tubing. **Price=** \$2

Low/high alarms: Our new programmable senders have a shared alarm terminal which can do low-alarm-only, high-alarm-only, low and high, low-on/high off, or high-on/low off. (Notes: 0/5V in hex holder, and 4/20ma, can't have alarms). Specify what alarm(s) you need, if any, such as LO=10%, HI=95%. **Price=** \$8.

Tank shape correction(lcm): Programming can be added to the sender to correct for odd-shaped tanks. The programming is designed from your inch/gal tank chart (\$60) or your dimensioned tank drawing (\$120). Specify LCM/DWG or LCM/CHART. **Price=** one-time design charge of \$60 or \$120.

Damping: Some customers with unbaffled tanks need our electronic damping to keep the reading from bouncing due to tank slosh. This is only true for long, shallow tanks, however, such as the 6-foot tanks in motorhomes. Most users *don't* need damping. Damping only removes short-term changes, not a long-term tilt. Specify DAMPED. **Price=** \$0.

Isolated ground for fuel: some boat customers request that the tubing of our fuel sender be direct-current-isolated from the Negative terminal of the sender for corrosion reasons (our water senders and 4/20mA senders are isolated by default). Specify: ISOL. **Price=** \$0