

# MODEL 2200-3000

*Optical Retrofit System for Price Type Current Meters*

## Product Description and Prices

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### *Update your Price Type meters*

The Model 2200-3000 solves many of the problems of open channel flow computation with ease and simplicity. Combining the accurate optical sensing technology introduced in the early 1980's as the Swoffer Model 2200, with microprocessor technology, the Model 3000 Indicator is the instrument you have been waiting for. Why count clicks or suffer through the esoteric commands of more complicated dataloggers? The easy retrofit of Price Type meters to the optical sensor and the decidedly *uncomplicated* operation of the Model 3000 Indicator can actually make time spent in the field pleasant.

Velocity averaging is easier than ever since you can set the Model 3000 to sample data from 1 to 999 seconds. When it has finished, you can average that reading with successive ones, keeping an accurate running average.

The Discharge Mode allows the additional input of width (Station number), depth and angle then provides the opportunity to take as many velocity readings as you wish: one at 0.6 or one each at .2 and .8 or a whole vertical column of averaged readings.

The Model 3000 keeps the accumulated average (and lets you reject any measurement you don't like) then it stores a single averaged velocity measurement for upload along with depth, width and angle. Memory capacity of 1000 Stations (mixed and matched in any combination of 1 to 100 Transects) means you can go days without having to write anything on paper.

Need more space? Just upload any or all of your transects to a personal computer then purge the ones no longer needed to make room for new data. You can view and manipulate the uploaded ASCII file with any popular spread sheet software. If you're just out to get some quick discharge measurements you can let the Model 3000 figure the "Q" and purge the accumulated data without uploading. The Model 3000 has an on-board clock that keeps the time and date from the moment it's shipped to you and all data gathered while in the Discharge Mode is time-stamped and uploads along with the Transects.

The latest technology inside assures that unforeseen future uses of the Model 3000 Indicator can be accommodated by simple software upgrades.



*Model 3000 with 2200 optical retrofits on an AA and a Pygmy*

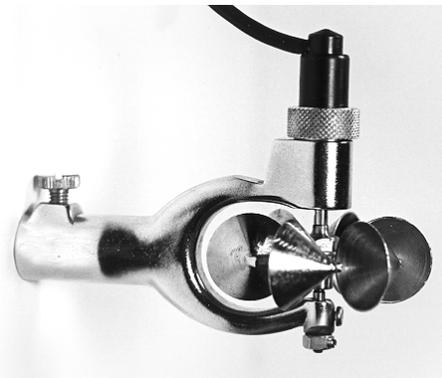
*Easy to Retrofit*

*Easy to Use*

*Upload Data to your PC*

*Latest technology inside*

*Compatible with all  
Price Type Meters\**



*Early style 2200 optical sensor retrofitted to a Pygmy meter*

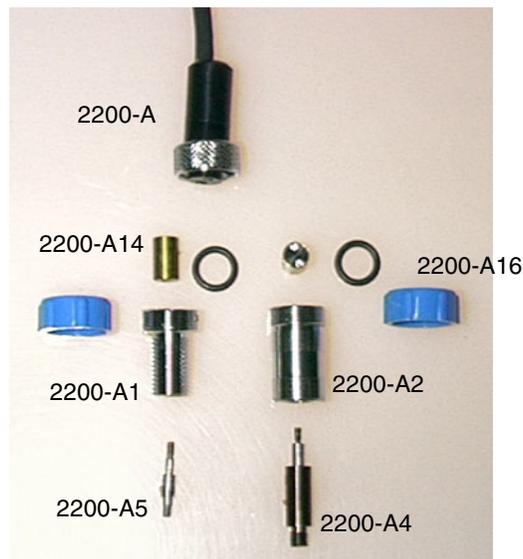
***\*The Model 2200-3000 is sold as a retrofit instrument only. Swoffer Instruments does not include the AA or Pygmy meters. These meters are available through other USA manufacturers and distributors.***

All Model 2200-3000 instruments are supplied with AA batteries, the Model 3000 Indicator, neck strap, hands-free harness, operating instructions and USB PC interconnect cable. A carrying case for the Model 2200-3000 is optional and shown on the back.

Swoffer designed the Model 2200 fiber optic sensor over 32 years ago to provide easy retrofit to AA and Pygmy meters. The Model 2200 digital indicator was introduced at the same time and was the first direct reading instrument for Price Type current meters using optical sensors. With no more clicks to count or ear phones to wear the new optical sensor technology proved to be more than a match for the 90 year old Price meter design.

Now the Model 3000 digital indicator replaces the original 2200 indicator allowing stream cross-section data to be tabulated and stored electronically as well as transferred to a PC. Retrofitting earlier Swoffer Model 2200 sensors is just a matter of connecting them to the 3000 Indicator. Calibration should be correct right out of the box or you may simply recalibrate it in the field anywhere there is a straight stretch of quiet water. You can also input the standard rating curve directly using the equation from your rating table chart.... It really is that simple. All parts install easily without modifying AA or Pygmy components. Just remove and replace them.

Not sure about retrofitting your meters with the optical sensor? Then you can operate the Model 3000 in a "contact closure" mode using the original catwhisker contacts or (better) the newer magnetic heads. A special pair of solder contacts in the battery compartment allows connecting the Model 3000 to any contact closure type signal input.



Retrofit hardware above easily replaces the original catwhisker components on both the AA and Pygmy meters. Meters can be restored to original configuration by simply reinstalling the original components. Swoffer's unique fiberoptic / electronic sensors provide 2-pulses per revolution; twice the resolution of the original cat-whisker contactors or the newer magnetic heads and they offer the additional advantage of decreasing friction and dramatically improving low speed accuracy.



### Carrying case (optional)

The Pelican Case 1450 has room for the Model 3000 Indicator, an AA and a Pygmy Meter plus other essentials. Basic cutouts for the Indicator are provided and the pick & pluck foam leaves you with the easy task of custom fitting the insert to your exact needs.

Pelican 1450@ \$124.00

Pelican® brand cases and boxes are registered trademarks of Pelican Products Inc., Torrance, California.

## PRICE LIST

Made in the U.S.A.

PART NO.	DESCRIPTION	Note: All sensor components have 2200 part numbers since they are unchanged from the earlier Model 2200.	PRICE
<b>Model 2200-3000</b>	Complete kit including 3000 Indicator, sensor cable assembly and parts conversion kits for one AA and one Pygmy meter. <i>AA and Pygmy meters not included.</i>		\$2,143.50
2200-3000 - Pygmy	Same as above but includes only the conversion kit for a Pygmy meter.		\$2,044.00
2200-3000 - AA	Same as above but includes only the conversion kit for an AA meter.		\$2,039.00
<b>3000-Indicator**</b>	Datalogging Digital Indicator <i>only</i> , with neck strap, manual, DB9 cable & software.		\$1,685.00
2200-A	Sensor with 10 foot cable, connector and threaded slip ring for installation.		\$255.00
2200-Pygmy Kit	Pygmy conversion kit, complete (see below).		\$104.00
2200-AA Kit	AA Conversion kit, complete (see below).		\$99.50
.05" Allen Wrench	Used as installation tool for Rotor shafts. Replaces earlier rotor wrench.		\$.50
2200-A11	Sensor protection cap. (Orange 'capplug', not pictured above)		\$.50
<b>2200-AA Kit</b>	<i>Comes with the 2200-3000 or 2200-3000-AA as ordered above but parts available separately</i>		
2200-A2	Sensor adapter for the AA Yoke.		\$43.00
2200-A4	Replacement rotor shaft, AA meter.		\$35.00
2200-011	"O" ring seal.		\$0.50
2200-A16	Adapter Protection cap (fits AA & Pygmy adapters. Protects fiber-optics &		\$1.00
2200-A14	Fiber-optic rotor. (two pulses per revolution)		\$20.00
<b>2200-Pygmy Kit</b>	<i>Comes with the 2200-3000 or 2200-3000-Pygmy as ordered above but parts available separately</i>		
2200-A1	Sensor adapter for the Pygmy Yoke.		\$43.50
2200-A5	Replacement rotor shaft, Pygmy meter.		\$38.00
2200-011	"O" ring seal.		\$0.50
2200-A16	Adapter Protection cap (fits AA & Pygmy adapters. Protects fiber-optics & the "O" ring.		\$1.00
2200-A14	Fiber-optic rotor. (two pulses per revolution)		\$20.00
10-32 x 1/4"	Round head screw replaces catwhisker contactor in nylon bushing, to seal the yoke.		\$1.00
Extension Cables	Any length to 1000 feet available. Twist-lock connector at both ends.		

\*\*Usually all that is necessary to update any earlier Model 2200 Instruments.

Prices are in US Dollars and are subject to change without notice. Prices are FOB Seattle, WA, USA. Shipping will be by an air carrier selected by Swoffer unless otherwise specified. Prices and purchasing procedures are for North America only and will not be guaranteed in other world markets. Please contact us for distribution, prices and payment terms for your local area. All Swoffer Instruments products are warranted against defects in workmanship & materials for one year from date of sale. For a copy of the complete warranty or if you have any questions about Swoffer products, please contact by phone, fax, e-mail or post:



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