



**VERIS**  
**Verabar®**

**DPharp**

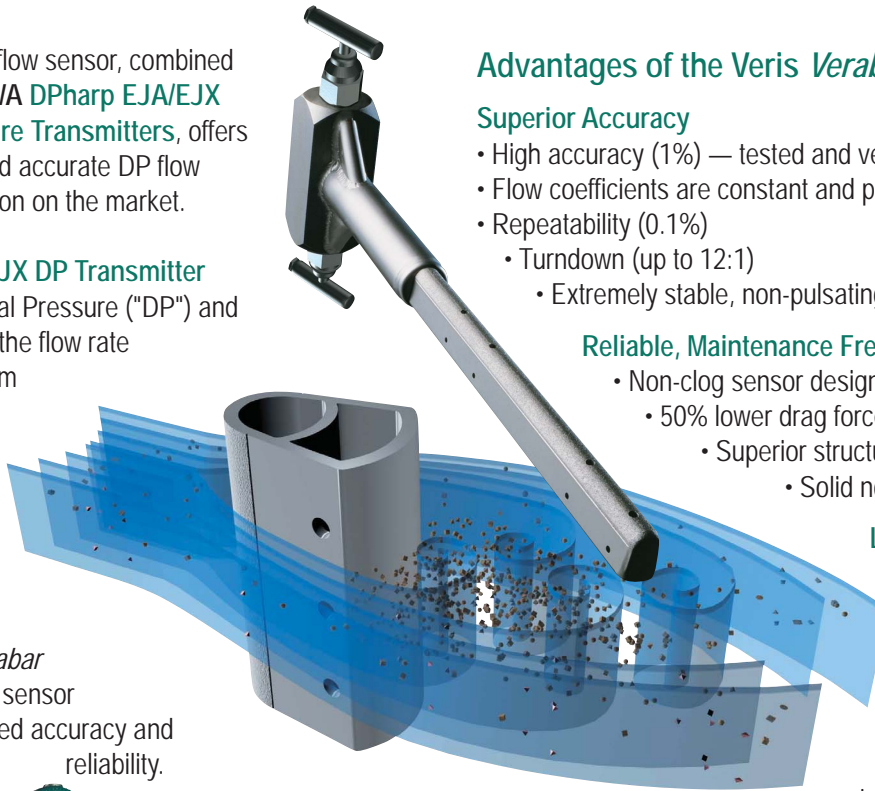
## The Complete DP Flow Measurement Solution...

### Verabar® Flow Sensors and DPharp EJA/EJX DP Transmitters

The Veris *Verabar* flow sensor, combined with the YOKOGAWA DPharp EJA/EJX Differential Pressure Transmitters, offers the most reliable and accurate DP flow measurement solution on the market.

The DPharp EJA/EJX DP Transmitter measures Differential Pressure ("DP") and is used to measure the flow rate of liquid gas or steam that has non-variable pressures and temperatures.

Developed from aerospace technology, the *Verabar* averaging pitot flow sensor provides unsurpassed accuracy and reliability.



#### Advantages of the Veris *Verabar* Flow Sensor

##### Superior Accuracy

- High accuracy (1%) — tested and verified
- Flow coefficients are constant and predictable
- Repeatability (0.1%)
- Turndown (up to 12:1)
- Extremely stable, non-pulsating signal

##### Reliable, Maintenance Free

- Non-clog sensor design
- 50% lower drag force
- Superior structural strength
- Solid no-leak construction

##### Low Permanent Pressure Loss

- Lowers energy costs

##### Lowest Installation Costs

- Requires a single pipe penetration

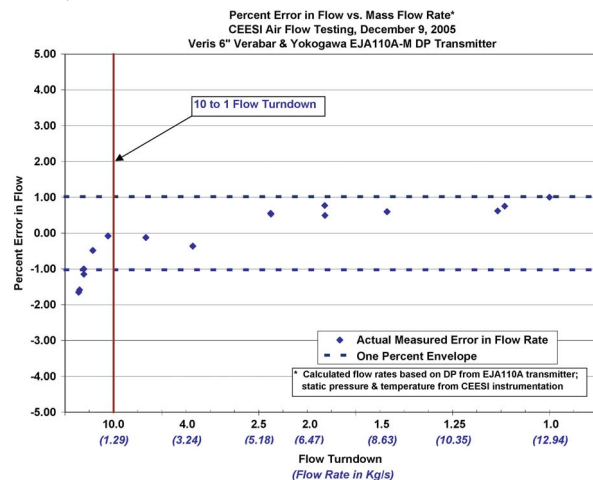
With its solid one-piece construction and bullet shape, the *Verabar* provides high accuracy and clog-free performance.

The unique shape reduces drag and flow-induced vibration. The low-pressure ports located on the side eliminate clogging and improve signal stability.



#### Actual Flow Test Summary

The *Verabar* was tested with the YOKOGAWA EJA110A DP transmitter at an independent laboratory (see test below).



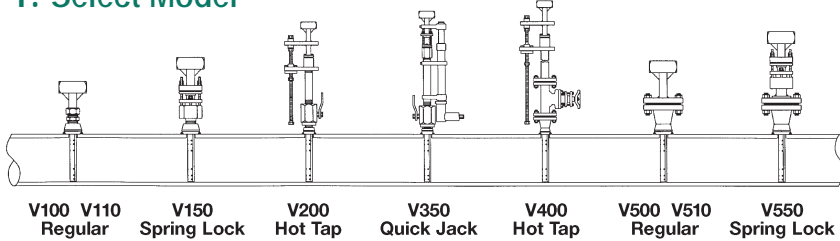
Bulletin 22A00R06-01E

www.yokogawa.com



## How to Order

### 1. Select Model



### 2. Furnish Flow Conditions

| General Data  | Fluid Parameters | Maximum | Normal | Minimum | Units |
|---|------------------|---------|--------|---------|-------|
| Tag Number  | Flow Rate        |         |        |         |       |
| Pipe size & sch. or exact ID & wall thickness                                   | Pressure         |         |        |         |       |
|   | Temperature      |         |        |         |       |
| Fluid Name  | Density*         |         |        |         |       |
| *If available. If not, the Veris Flow Calculation Program contains steam tables |                  |         |        |         |       |

### 3. Calculate and Verify

Calculate *Verabar* Differential Pressure, and Verify Model Selection and Structural Calculations (See VeraCalc Program for calculations, and complete specifications, submittal and installation drawings)

### 4. Select YOKOGAWA Transmitter

Select DPharp EJA/EJX Model Code and Differential Pressure Range (Refer to General Specifications)

### Specifications

| Verabar   |  |
|---|--|
| Accuracy  | 1.0%   |
| Repeatability   | 0.1%   |
| Material  | <b>Weld coupling:</b><br>Compatible with pipe material<br><b>Sensor:</b> Standard 316SS<br><b>Special:</b> Inconel, Hastelloy, 316H and others |
| Pressure  | ANSI Class – 150#, 300# and 600#*<br>Flanged Models up to 2500#  |
| Max Allowable DP  | As shown on VeraCalc Flow Calculation Program  |
| Temperature – Direct Mount  | Limited by the transmitter**   |
| Temperature – Remote Mount  | 800F (max)*  |
| *Model & component selection must be verified by VeraCalc (Flow & Structural Calculation Program)<br>**See transmitter's General Specifications |  |

For detailed specifications, please refer to each reference document

## NOTICE

Before operating the product, read the user's manual thoroughly for proper and safe operation.

The names of the companies and their products listed in this catalog are all trademarks or registered trademarks of those companies.

*Verabar*® is manufactured by:



*True Performance in Flow Measurement*

6315 Monarch Park Place Niwot, CO 80503 USA

• Phone: 303-652-8550 • Toll Free: 877-837-4700 • Fax: 303-652-8552

• E-mail: [contact@veris-inc.com](mailto:contact@veris-inc.com) • Website: [www.veris-inc.com](http://www.veris-inc.com)

A Yokogawa Commitment to Industry

**vigilance**®

quality

innovation

foresight

What does Yokogawa **vigilance** mean to the future of your business? **Quality**. Through products that are built from the ground up and tested to the last hour, you're ensured continuous operation and more uptime. **Innovation**. Your business will benefit from new insights and capabilities, bringing true predictability to your process. **Foresight**. As the market changes, you'll have solutions that give you the continuity and flexibility to plan ahead and grow. Our partners know the difference. With Yokogawa, you can count on a lifetime of plant efficiency, from instrumentation to operation support. Let us be vigilant about your business.

YOKOGAWA ELECTRIC CORPORATION

World Headquarters  
9-32, Nakacho 2-chome, Musashino-shi, Tokyo 180-8750, JAPAN  
<http://www.yokogawa.com>

YOKOGAWA CORPORATION OF AMERICA

2 Dart Road, Newnan, GA 30265-1094, U.S.A.  
<http://us.yokogawa.com>

YOKOGAWA EUROPE B.V.

Databankweg 20, 3821 AL Amersfoort, THE NETHERLANDS  
<http://www.yokogawa-europe.com>

YOKOGAWA ENGINEERING ASIA PTE. LTD.

5 Bedok South Road, Singapore 469270, SINGAPORE  
<http://www.yokogawa.com/sg/>

YOKOGAWA CHINA CO., LTD.

K. Wah Centre 28, 29F 1010 Huai Hai Zhong Rd., Shanghai 200031  
<http://www.yokogawa.com/cn/>

YOKOGAWA MIDDLE EAST B.S.C.(c)

P.O. Box 10070, Manama  
Building 577, Road 2516, Busaiteen 225, Muharraq, Bahrain  
<http://www.yokogawa.com/bh/>

Represented by:

[Ed : 01/b] Printed in Japan, 610(KP)

Subject to change without notice

All Rights Reserved. Copyright © 2006, by Yokogawa Electric Corporation

YOKOGAWA