



# Technical Specifications

## ORB 2.0 Remote Monitor

Material Information When, Where and How you want it

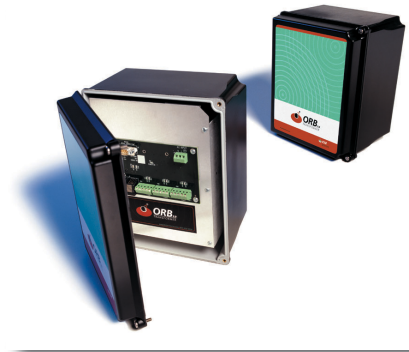
**The ORB 2.0 Remote Monitor** It transforms ordinary level and weight data into useful information that will increase process productivity at every level of the organization. This instrument interfaces with the sensing systems to log high volumes of data that are then organized as needed by various users within the plant environment as well as remotely. Bulk material management, capacity utilization, and system reliability have direct impact on Quality, Delivery and Cost (QDC). The simplicity with which information is transformed is made possible with the simple HTML access to this highly reliable server. Thus, via a simple web browser interface, the programs are accessible without need for special programming, drivers or software packages.

### Productivity and Flexibility

Standard are the communication ports which include TCP/IP as well as its built-in web server and optional modem. A user can log onto the network (LAN/WAN) for immediate access to individualized information that features both graphical format as well as a tabular format. Historical trending, raw data access and 'events' extend user flexibility.

Users include operations, maintenance and instrumentation, finance, procurement, material planning and IS/ IT. As the ever-changing requirements of users differ, so do the feature-rich capabilities of the system. While real-time material updates, past trends and usage rates are needed for some users, watchdog alarms can help operations warn of imminent overfills, low levels or run outs. Reports not only weight and level information, but also pressure, temperature and flow; in effect, all process control equipment information with 4-20 output. Secure user access can be assigned by department for in-plant use and extend to remotely based suppliers or other logistics personnel. Diagnostic capabilities include instrument calibration backup for validation. KM remote system troubleshooting can access the unit through the IP address and remotely troubleshoot any problems that may occur.

For a demo, go to -  
[www.kmorb.com/about](http://www.kmorb.com/about).



## Features & Benefits

### Data Security

Encrypted database is password protected and combined with SSL (Secure Socket Layers) offers full system and data protection for both intranet and internet access.

### Integrated Communications

Built-In web server supplies material and system information to any desktop using an Ethernet TCP/IP connection simplifying and minimizing involvement for MIS/contract services.

### Simple To Use

Users need no special training to use or access material levels and trending information screens. Raw data can also be downloaded from the ORB 2.0 SQL database for access with programs such as Excel and Access.

### Quick Startup

Quick Config of ORB 2.0 auto-detects and learns connected KM systems for immediate startup.

### Easy Access

Current and historical data are available to a large number of sites and multiple users.

### Multiple Alarm Setpoints

Continually monitors and alerts users you define via onscreen display, email, text paging & optional numeric pager about material and system alarm conditions.

### 4 Channel 4-20 mA Input Card

Quick, interface to all process equipment. Eliminate the need for multiple indicators by consolidating process control interfaces saving money and space.

## Specifications:

### User Data Access

Intranet and Internet via Web Browser  
Access to built-in Web Server:  
Internet Explorer 4.0 and Netscape Navigator 4.0 (or higher)  
SQL Compliant

### Built-in Web Server Provides

Material level or weight  
Long-term trends  
Alarm conditions and acknowledge  
Data logging rate  
Raw data download  
User setup  
KM system setup and access  
System change and user access log

### Watchdog Alarm Alerts

Low / Low-Low / Hi / Hi-Hi  
Controller Diagnostics  
ADC Over-range  
ADC Under-range  
Echo Loss  
Communication Loss  
E-mail, data pager, fax

### System Setup

Plug & Play Configuration to KM Systems  
Integral Menu  
RS-232 to PC  
LAN/WAN via TCP/IP

### KM System Access

Gross/Level (net through data logging):  
SVS 2000\*, Weigh II (rev B or higher firmware), STX (rev C or higher firmware), MVS (rev G or higher firmware), Sono II (rev L or higher firmware) ultra-wave  
Calibration/Setup backup and restore:  
SVS 2000\*, Weigh II (rev B or higher firmware), MVS (rev L or higher firmware), Sono II (rev P or higher), ultra-wave

\* requires optional serial port

### Communication Ports

1 LAN/WAN (RJ45) Ethernet TCP/IP  
1 Modem (RJ11) to phone (optional)  
1 RS-232C (DB9F)  
3 RS-422/485 (terminal blocks)

### Electrical

AC Power: 90 VAC - 254 VAC; 40 watts

### Environmental

Operating Temperature: -22 to 125°F (-30 to 50°C)  
Humidity: 0-100% non-condensing

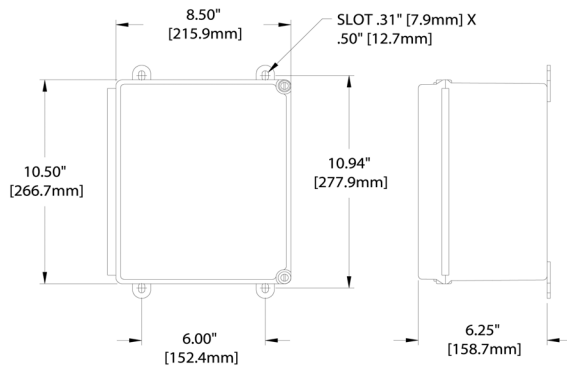
### Physical

Overall dimensions:  
NEMA-4X FRP enclosure:  
10.5 in. H x 8.5 in. W x 6.5 in. D  
(130.2 mm x 215.9 mm x 165.1 mm)  
Mounting hole pattern:  
10.94 in. x 6 in.  
(278.87 mm x 152.40 mm)  
Weight: 6.5 lbs (2.95 kg)

### 4-20 mA Analog Input Card Option:

The ORB 2.0 Remote Monitor is available with a 4 channel 4-20 mA input card providing easy connection to your process equipment.

ORB 4-20 mA / Analog Input Card



Voltage Requirement:	Board: 7.5 - 24 VDC Kit: 85 - 224 VAC
Power Consumption:	2 Watts/board
Size:	Board: 3" x 5" x 0.75" Enclosure: 6" x 8" x 10"
Max Boards/Box:	5 (20 Channels)
Operating Humidity:	0-99% non-condensing
Temperature:	0-120° F, operating -20 to 150° F, storage
Interface:	RS422/485 KM-Net
A/D Input Impedance:	187.5 Ohms (+/- 1%)
Addressing:	8x2 position Dip Switches
Max Channels	256 Channels (64 Boards) per ORB

#### Ordering Information:

ORB 4-20	(Includes Single 4 Channel Board, Standoffs)
ORB 4-20 KIT	(Includes NEMA-4X Enclosure, Power Supply, Single 4 Channel Board)

97-7004-01 Rev E

Specifications subject to change without notice.  
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KM is represented in your area by:



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