

City Of Lewisville Department of Public Services

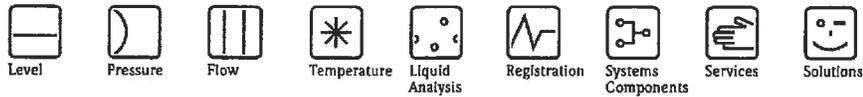
Meter Electronics Enclosures Communication

1. Endress + Hauser Proline Ultrasonic Flow Measuring System with Transit Time Meter and Recorder.
2. Naztec M30 Base Mount NEMA Cabinet Enclosure with Antenna Mounting Hardware and Quartz Base.
3. Motorola Moscad-L Remote Terminals for SCADA Connectivity by Automated Computer Systems.

The enclosed drawings are non-engineered depictions of Meter Electronic Enclosures. They are not intended to reflect building standards for load bearing, electrical connectivity or any other engineering requirement.



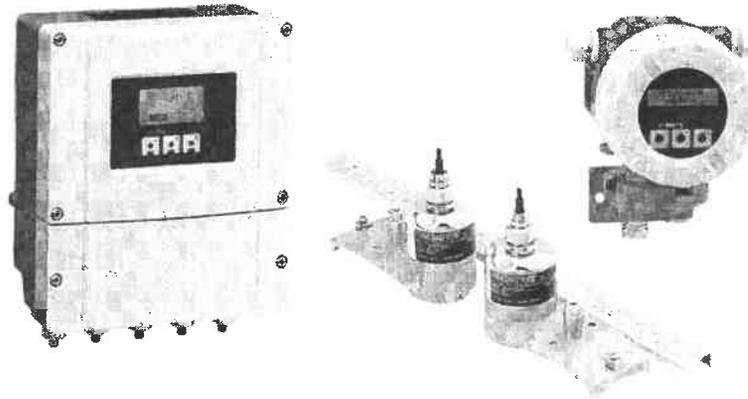
LEWISVILLE
Deep Roots. Broad Wings. Bright Future.



Technical Information

Proline Prosonic Flow 90U, 90W, 91W, 93C, 93U, 93W

Ultrasonic Flow Measuring System
Flowrate measurement for standard applications
with drinking water, wastewater and process water



Application

The sensors are perfectly suited for bidirectional measurement of pure or slightly contaminated liquids, regardless of the pressure, temperature, conductivity and viscosity.

- Applicable for all homogeneous fluids in acoustically transmissive pipes, even with lining
- For water/wastewater applications
- Ideal for retrofitting
- Installation without process interruption

Approvals for hazardous area:

- ATEX, FM, CSA

Approvals in the food industry/hygiene sector:

- Drinking water approval for Prosonic Flow C

Connection to process control system:

- HART, PROFIBUS PA, FOUNDATION Fieldbus

Your benefits

Prosonic Flow, the flexible and cost-effective flow measuring system, available as a clamp-on, insertion or inline unit, offers you a tailor-made solution.

The **Proline transmitter concept** comprises:

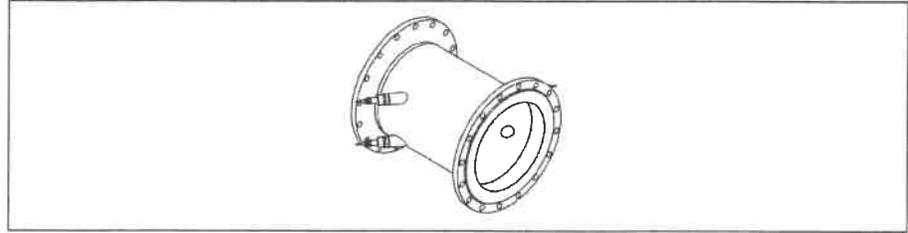
- Modular device and operating concept resulting in a higher degree of efficiency
- Diagnostic ability and data back-up for increased process quality

The tried-and-tested **Prosonic Flow sensors** offer:

- Easy and safe installation and commissioning guarantee precise measurement
- Insensitivity to vibrations
- No pressure loss
- Optionally available as dual-path version for short inlet runs
- Prosonic Flow C with guaranteed and attestable accuracy

System design
Inline sensors

Prosonic Flow C Inline



FD6-0rCxxxx-21-05-06-xx-000

Design:

The Prosonic Flow C Inline sensor consists of a measuring pipe which is integrated into the pipe system of the application by means of process flanges.

Prosonic Flow C is a dual-path system and has two pairs of W insertion sensors.

Possibilities and applications:

- High accuracy
- Traceably calibrated
- Suitable for applications with water and wastewater.

The measuring pipe is not an active part of the measuring system and is therefore not required for the measuring function. However, in contrast to the clamp-on and Insertion systems, which are installed on site, it allows the calibration to be transferred from the factory to the place of use. This has the advantage that a 93 C Inline measuring system measures with guaranteed and verifiable accuracy. Prosonic Flow C Inline makes it possible to achieve high accuracy of the ultrasonic flow measuring system and also offers traceable calibration.

The C Inline sensor is available specific to the application in two versions with different linings:

- For drinking water: epoxy coating with approval for drinking water
- For wastewater: epoxy coating for wastewater

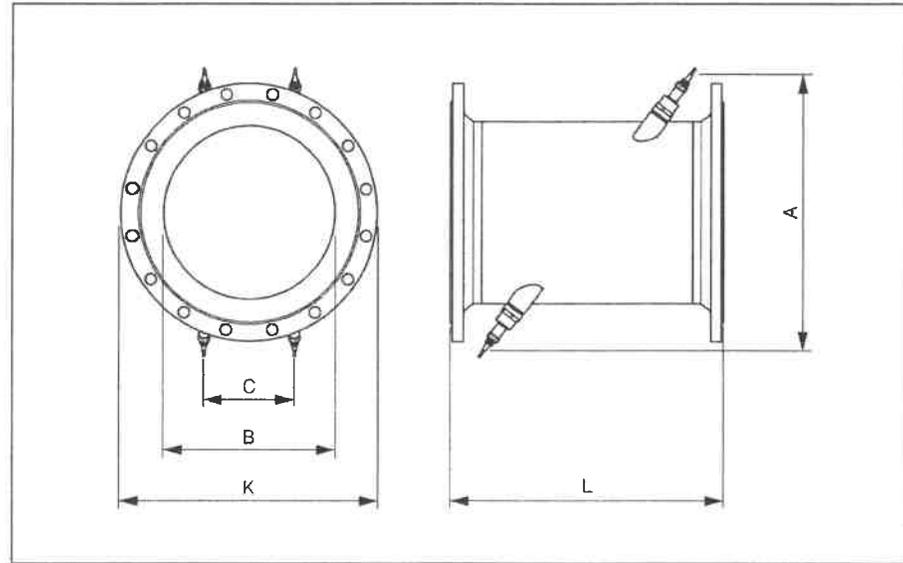
The Prosonic Flow 93 C Inline measuring system always consists of a combination of a Prosonic Flow 93 transmitter in a wall-mount housing and an optimized version of the Prosonic Flow W Insertion sensors integrated in the measuring pipe. Prosonic Flow 93 C Inline is only available as a remote version with 2 sensor pairs. This dual-path version offers the following advantages over the single-path version:

- Short inlet run of only 10 x DN.
- Increased tolerance towards turbulence (swirl).
- Improved linearity of measurement.

Please refer also to the "Installation" and "Technical data" sections.

Prosonic Flow C Inline

Calibrated measuring pipe with flowrate measuring sensors W



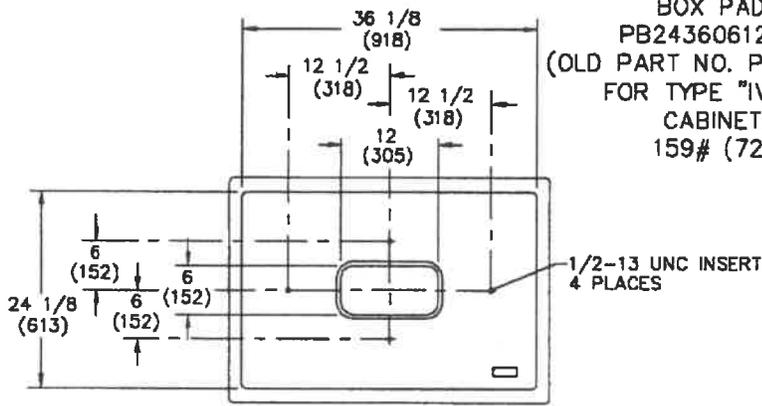
P06-PrC1000-00-05-zr-00-000

| EN (DIN) PN 6 [mm] | DN | | | A mm (inch) | B mm (inch) | C mm (inch) | L mm (inch) | K mm (inch) |
|-----------------------------|------------------------------|------------------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|
| | EN (DIN) PN 10 [mm] | EN (DIN) PN 16 [mm] | ANSI/ AWWA [inch] | | | | | |
| - | 300 | - | - | 520 | 317.5 | 165.1 | 500 | 445 |
| - | - | 300 | - | 517 | 313.9 | 163.2 | 500 | 460 |
| - | - | - | 12" | 517 (20.4) | 313.9 (12.4) | 163.2 (6.43) | 500 (19.7) | 482.6 (19) |
| - | 350 | - | - | 548 | 350 | 182 | 550 | 505 |
| - | - | 350 | - | 546 | 348 | 181 | 550 | 520 |
| - | - | - | 14" | 544 (21.4) | 346 (13.6) | 179.9 (7.1) | 550 (21.7) | 533.4 (21) |
| - | 400 | - | - | 590 | 400 | 208 | 600 | 565 |
| - | - | 400 | - | 589 | 398 | 207 | 600 | 580 |
| - | - | - | 16" | 587 (23.1) | 396 (15.6) | 205.9 (8.11) | 600 (23.6) | 596.9 (23.5) |
| - | - | - | 18" | 629 (24.8) | 445 (17.5) | 231.4 (9.11) | 650 (25.6) | 635 (25) |
| - | 500 | - | - | 676 | 500 | 260 | 650 | 670 |
| - | - | 500 | - | 674 | 498 | 259 | 650 | 715 |
| - | - | - | 20" | 672 (26.5) | 496 (19.5) | 257.9 (10.2) | 650 (25.6) | 699 (27.5) |
| - | 600 | - | - | 763 | 602 | 313 | 780 | 780 |
| - | - | 600 | - | 760 | 598 | 311 | 780 | 840 |
| - | - | - | 24" | 756 (29.8) | 594 (23.4) | 308.9 (12.2) | 780 (30.8) | 813 (32) |
| - | 700 | - | - | 848 | 701 | 364.5 | 910 | 895 |
| - | - | 700 | - | 842 | 695 | 361.4 | 910 | 910 |
| - | - | - | 28" | 846 (33.3) | 699 (27.5) | 363.5 (14.3) | 910 (25.9) | 927.1 (36.5) |
| - | - | - | 30" | 889 (35) | 750 (29.5) | 390 (15.4) | 975 (38.4) | 984.25 (38.8) |
| - | 800 | - | - | 935 | 803 | 417.6 | 1040 | 1015 |
| - | - | 800 | - | 930 | 797 | 414.4 | 1040 | 1025 |
| - | - | - | 32" | 933 (36.7) | 801 (31.5) | 416.5 (16.4) | 1040 (40.9) | 1060.45 (41.8) |
| - | 900 | - | - | 1019 | 902 | 469 | 1170 | 1115 |

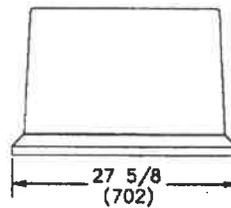
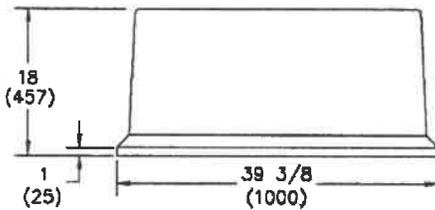
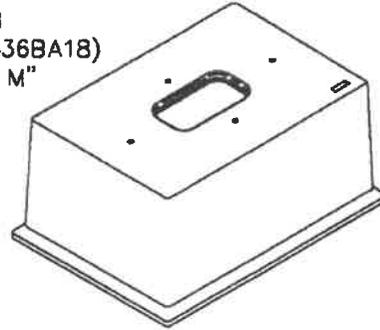


SPECIFICATIONS/DATA

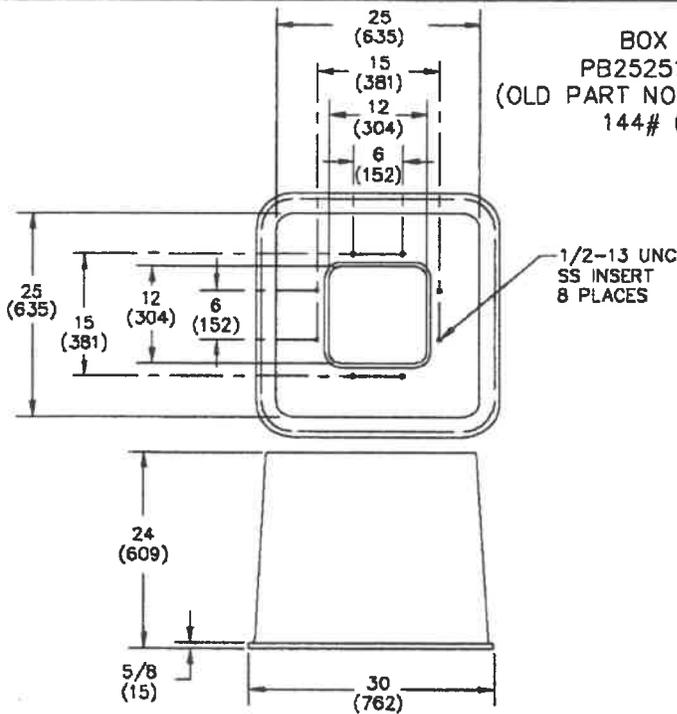
Traffic Signal Cabinet Bases



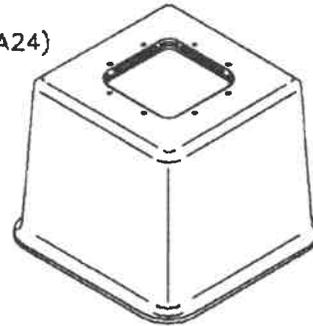
BOX PAD
PB24360612B18
(OLD PART NO. PB2436BA18)
FOR TYPE "IV & M"
CABINETS
159# (72.1)



TRANSPORTATION INDUSTRY PRODUCTS



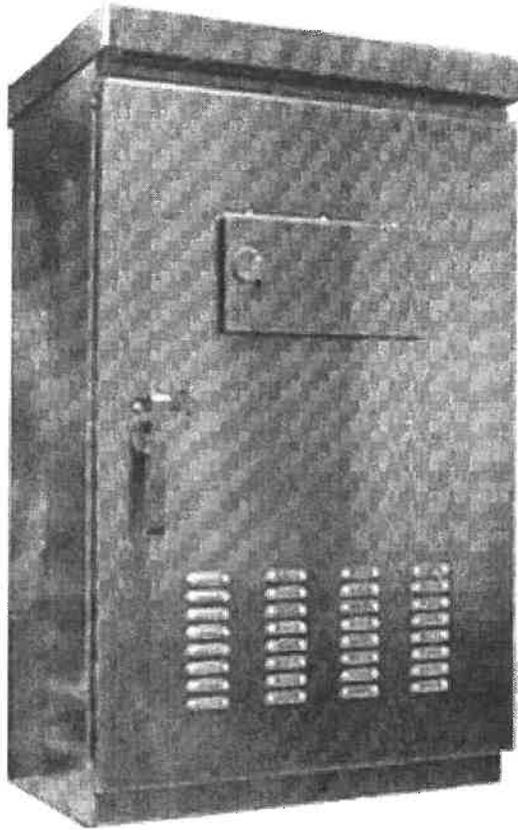
BOX PAD
PB25251212B24
(OLD PART NO. PB2525BA24)
144# (66.3)



Dimensions and weights in parentheses are metric equivalent.

JULY 2006





FEATURES

- Meets NEMA standards
- Base mounted
- Constructed of 0.125" thick aluminum
- "C" mounting channels on side and back walls for mounting shelves and panels
- 3-point latching mechanism of zinc plated steel
- Stainless steel door handle designed for padlock
- Stainless steel door hinge, continuous or optional 3 hinge arrangement

SPECIFICATIONS:

| | |
|---------------------|---|
| Outside dimensions: | 50" H x 30" W x 18" deep |
| Mounting Pattern | 20" W x 20" D |
| Material: | Aluminum (.125" thick) |
| Finish: | Bare or Painted, inside/out |
| Mounting: | Base Mounted |
| Locking System: | 3-point locking system with Corbin #2 lock |
| Door Stops: | Bar stop at top of door |
| Ventilation: | Pleated fiber filter in door, fan with thermostatic control |
| Light: | Incandescent or optional fluorescent, door switch activated |