

## Pearl V3 Series of DRO's



### Features :

- ◆ Interactive message display
- ◆ Metric/Inch conversion
- ◆ Radius/diameter conversion
- ◆ Preset
- ◆ Dimension define
- ◆ Absolute counting
- ◆ Machine reference
- ◆ Homming facility
- ◆ Non volatile memory backup
- ◆ Power saving mode
- ◆ Calculator
- ◆ Encoder direction select
- ◆ 0-9 Keyboard
- ◆ Halving function
- ◆ Center of circle
- ◆ Near zero warning beep
- ◆ Linear encoders supported LE 2534, LE 1820, LE 3043, ME 2910, ME 2920, ME 6012 Read heads / scales
- ◆ 2/3/4 Axes configuration
- ◆ Any axis can be configured as linear/angular axis
- ◆ High counting frequency up to 3.75 Mhz
- ◆ Multi datums – total 6 datums
- ◆ Settable display refresh time
- ◆ Up to 1000 points of circle/ arc/ straight line/ inclined line/ Frames/ matrix hole pattern
- ◆ Mirroring/ scaling
- ◆ Linear error compensation
- ◆ Nonlinear error compensation of 200 points each axis
- ◆ Angular error compensation of 200 points also possible
- ◆ Angular pcd of 1000 points
- ◆ Settable encoder resolution 0.1/ 0.01/ 0.05/ 0.005/ 0.001/ 0.0005/ 0.0001 mm/ user defined
- ◆ Selectable display resolution : 0.1/ 0.01/ 0.05/ 0.005/ 0.001/ 0.0005/ 0.0001mm
- ◆ Measuring range -99999.999 to 99999.999 mm
- ◆ Constant surface speed output (optional)
- ◆ Taper turning
- ◆ Taper calculation
- ◆ Tool offset-no of tools-20
- ◆ Job clock/ feed rate display
- ◆ Programming block (2000 points)
- ◆ Direct loading of dxf file using the software
- ◆ Axes summing/ vectoring
- ◆ Polar coordinates
- ◆ Z+Q
- ◆ Skew
- ◆ Serial RS232 interface
- ◆ Programmable six relay output - pulse/ level type (optional)
- ◆ Touch probe interfacing (optional)
- ◆ Infrared remote keyboard
- ◆ XY, YZ, XZ interpolation

### Optional

- ◆ Remote console - wireless or wired
- ◆ Backlash compensation

# Pearl V3 Series of DRO's

## IAP Pearl V3-Instrumentation series :

- ♦ All functions of Pearl V3
- ♦ Measurements for resolution upto 0.05  $\mu\text{m}$
- ♦ More stability for noise, inductor beads with capacitive filtration is provided.
- ♦ Max I/P pulse frequency of signal - 7.5Mhz

Pearl V3 instrumentation DRO has improved speed and noise performance and used for metrology applications.

DRO's can be fitted on any conventional machines either new or old such as

- ♦ Center lathe
- ♦ Milling machine
- ♦ Horizontal boring machine
- ♦ Vertical turret lathes
- ♦ Cylindrical grinder
- ♦ Surface grinder
- ♦ Tool presetters
- ♦ Special purpose machines
- ♦ Length measuring fixtures

## Ease of operation :

Increased productivity with innovative Pearl V3 series of digital readouts by retrofitting your manually operated machine tools or measuring equipment. This increases, helps to increase productivity, higher precision and more operating ease. You can retrofit pearl series of DRO systems with any new or old machines.

## Save time and reduced cost :

Digital readouts from innovative will save operators time and increases productivity

## Small batch production :

To enable you to machine directly from the dimensions in the drawing, digital readouts offer the following support :

- ♦ Switching between absolute/incremental dimensions
- ♦ Radius/diameter switching (for lathes)
- ♦ Functions for fast reference point acquisition
- ♦ Program store/ recall for fast production of repetitive machining of small batch quantities.

## IAP Series of Linear Encoders :

The highly accurate and reliable linear encoders from Innovative directly measure the movements of the axis slides and convert them into electrical measuring signals. These signals are calculated by the IAP series of DRO's, which displays position of slides. Back lash/ play in machine slides does not affect the accuracy of the displayed position values.

Supported signals for Linear Encoders Signals other than standard IAP series of scales with 5V TTL quadrature waveform.

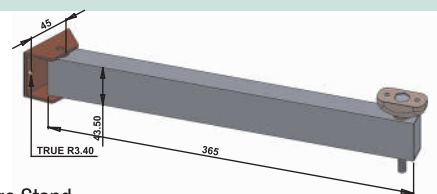
## IAP 2X Pearl V3



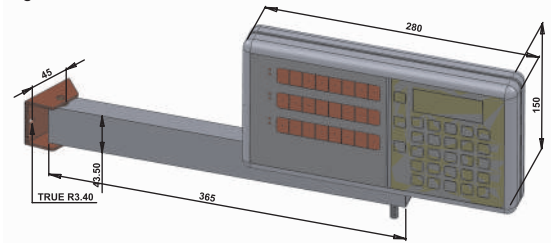
## IAP 3X / 4X Pearl V3



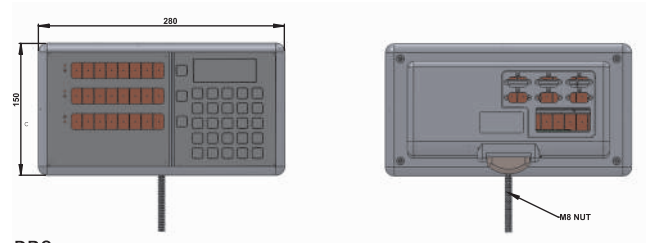
## Mounting Drawings



## Mounting Stand



## Mounting Stand with DRO



## DRO

Note : Due to continuous R&D activities at our end, Specifications are subject to change without prior notice.