

Digital Read-Outs





BASIC 110, 210, 310, 210 L, 310 L Series

For Lathes, Milling, Boring, Electrical Discharge Machines and for Similar Machine Tools



The Difference of EA

General Features

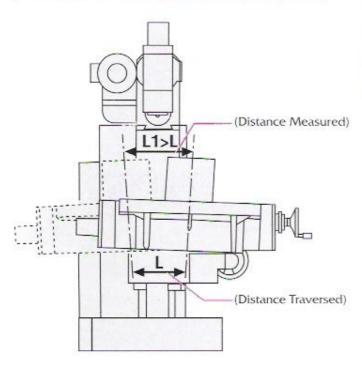
Accurate and Functional

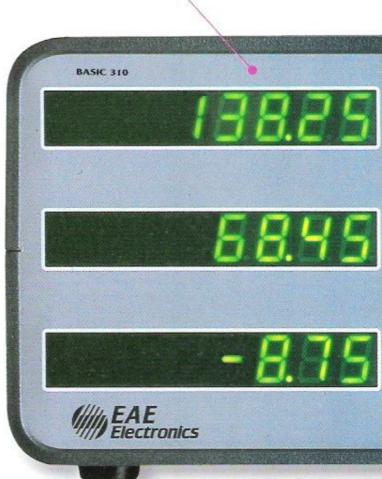
Large operator panels enables EASY ACCES
TO ALL FUNCTIONS using few key strokes

More Economic

More Ergonomic

CORRECTION OF measurement errors due to MACHINE ABERRATIONS





RAM and EEPROM MEMORY PROTECTION is standard.

E in Digital Read-Outs..

of BASIC DRO Series:

5

ANGULAR MEASUREMENTS is possible on each axis display

Recalling absolute **MACHINE REFERENCES** by means of reference marks on scales

INCR	ABS	-P-	MREF	INCH	
X	7	8	9	M	MM
4	5	6	F	MREF	INCH
4	5	6	F	MREF	INCH
4	5	6	F	MREF	INCH
4	5	6	F	MREF	INCH
4	5	6	F	MREF	INCH
7	1	2	3	M	MM
7	1	2	3	M	
8	9	M	MM	MM	
1	2	3	M		
0	+/_	SET			
2	6				
7	7				
7	7				
8	9	MREF	INCH		
1	1	2			
2	3	M			
3	4				
4	5	5			
5	7				
7	7				
7	8	9	MREF	INCH	
8	9	MM	MM		
9	MM	MM			
1	2	3	M		
1	2	3	M		
1	2	3			
7	SET				
7	The set of the s				

INCH/MILIMETER CONVERSION

ABSOLUTE and INCREMENTAL MEASUREMENTS

Both **ABSOLUTE** and **INCREMENTAL POSITIONING** is possible. "**APPROACH TO ZERO**" feature removes the need of remembering the position value to be approached.

Fast, Economic And Effective After Sales Service



EAE-DRO

For Milling, Boring, Co-ordinated Drilling and Similar Machine Tools

Additional Capabilities

In addition to general features of BASIC DRO Series, the milling machine model includes following unprecedented capabilities:

10 DIFFERENT CO-ORDINATE REFERENCE POINTS



REF 0

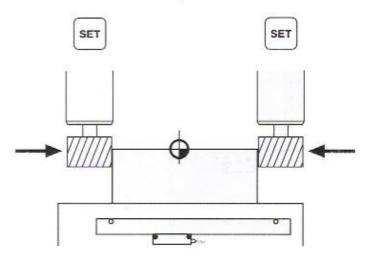
BASIC 310,210 and 110 readout units provide the comfort of 10 independent co-ordinate reference points. It is possible to make incremental and absolute measurements with respect to each of these 10 independent reference points. Thanks to this capability, jobs requiring repeating intricate patterns can easily be machined. In addition, this feature reduces number of calculations needed with associated probability of error.

CENTER - LINE DEFINITION



With the aid of "center - line" function it is possible to define center line of a work piece.

SET key is pressed after touching both sides of the work piece with the cutting tool. When axis display becomes zero the center line will be reached. Use of a symetric cutting tool removes necessity of tool radius compensation.



✓ 1 axis DRO is available.



For Turning Machines

Additional Capabilities

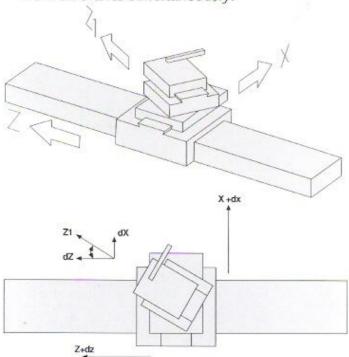
In addition to general features of BASIC DRO Series, the turning machine model includes following capabilities:

Z1 AXIS MOVEMENT PROJECTIONS





Classic Z and Z1 axis co-ordinate summing function has been improved to be more universal in BASIC 310L. When the cross support is turned at an angle to the X and Z axes, vector components of Z1 axis movements can be summed with both X and Z axis. Naturally, when the angle is zero, Z axis display can indicate sum of Z and Z1. For machining conic parts, additional time saving is achieved with the capability to work on 3 axes simultaneously.



DIRECT DIAMETER DISPLAY

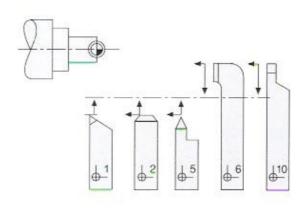


At a single key stroke X axis display can be set to read radius or diameter. This capability allows easy machining of parts with diameter and from axis dimensions.

10 TOOL OFFSET MEMORIES



BASIC 310L and 210L include memories for 10 different tool offsets. Cutting tip co-ordinates of different length and shape tools can be entered, upon tool change appropriate tool offsets can be recalled from memory.

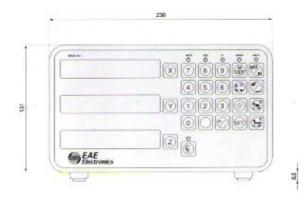


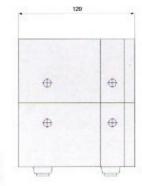






110 / 210 / 310 / 210 L / 310 L





TECHNICAL SPECIFICATIONS

Supply Voltage

:220 V AC (+ 10% - 15%) (Standard)

110 V AC (+ 10% - 15%) (Internally Selectable)

Supply Frequency

:48-62 Hz

Power Consumption : 25 VA

Encoder Power Feed :5V DC 100 mA (Each)

Encoder Inputs

: Open-collector TTL. 2 quadrature

(A-B) and 1 reference (RI)

Measurement Speed: 100 kHz.

(1m/s at 0.01 mm resolution)

Axis Display

:8 digit, 15 mm 7 segment LED

Outher Enclosure

: Aluminium with electrostatic paint

Front Panel

:Sealed membrane

Working Temperature: 0 to 45°C

Storage Temperature :-20 to + 75°C

Humidity (Working)

: 20 to 80 %

Protection Class

: Front panel IP65, others IP 62

Weight

:3.25 kg. approx

Backup Battery

:CR 1/3 N Lithium

Parameter Memory

: 256 Byte EEPROM

Resolution Steps

: 1,2,5,10 µm (0,00005,0,0001,

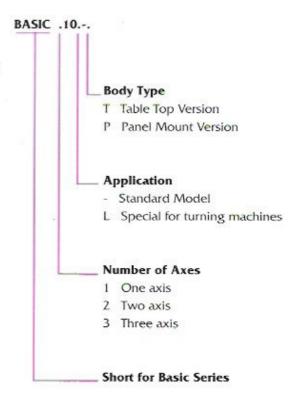
0.0002, 0.0005 inch),

0.001 deg, 00.00.04 second

Correction Factor

:O to +/-99999 µm/m

INFORMATION FOR ORDERS



Example:

BASIC 210 L-T

2 axis read-out for turning machines, table top version.



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