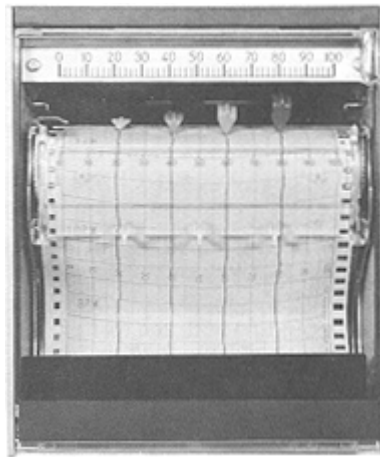


**120 Series**  
**Pneumatic CONSOTROL® Recorders**



The 120 Series Pneumatic CONSOTROL Recorder records up to four process measurements received as standard pneumatic transmission signals from remote transmitters.

**CONSTRUCTION SIMPLICITY**

Receiver element consists of a simple, precise bellows direct connected to pen mechanisms, no cable mechanisms, clutches, or complicated mechanics. Virtually frictionless linkage with ball and socket connectors.

**HIGH VISIBILITY**

Large brightly colored pen(s) clearly indicates measurement. Recording is on either 102 mm (4 in) SCANFOLD™ charts. Visible through distortion-free door.

**SPACE SAVINGS**

Up to four pens in one compact chassis.

**VERSATILE MOUNTING**

Unit mounts singly or in conjunction with other instruments in 101 or 102 Series Shelves.

**OVERRANGE PROTECTION**

Element can be factory calibrated to permit overranging up to 200 kPa, 30 psi, or 2 bar or kg/cm<sup>2</sup>.

**FRONT-OF-PANEL CALIBRATION ADJUSTMENTS**

Calibration and damping adjustments are made from the front of the panel by partially withdrawing the recorder from the shelf.

**PERFORMANCE**

**Accuracy**

±0.5% of span

**Repeatability**

0.3% of span

**Dead Band**

0.3% of span

**Precision Pen Design**

Formed stainless steel pen tip for non-skip recording on SCANFOLD charts.

**STANDARD SPECIFICATIONS**

**Model Number**

Construction	No. of Variables	Model
	1	121-FE
SCANFOLD	2	122-FE
Electric Chart	3	123-FE
Drive	4	124-FE

**MODEL CODE**

Description	Model
One Pen Recorder	121
Two Pen Recorder	122
Three Pen Recorder	123
Four Pen Recorder	124
<b>Type of Chart</b> SCAN-FOLD™	-F
<b>Chart Drive</b> Electric Chart Drive	E
Pneumatic Impulse Chart Drive	P
<b>Example: 121-FE; 123-FP</b>	

**Chassis**

Enclosed drawn steel with removable gasketed cover and hinged gasketed door.

**Finish**

Gray

**Mounting**

Flush in panels 3 to 25 mm (1/8 to 1 in) thick using 101 or 102 Series Shelves. Recorders require two units of mounting capacity.

**Mounting Angle**

Recorders may be specified for mounting with rear of the instrument lower than the front at any angle between 0 and 10 degrees. Greater angles optionally available.

**Connections**

Electrical and pneumatic multiprong receptacles on rear of chassis.

**Receiver Element**

One brass bellows per pen.

**Input Signal**

20 to 100 kPa, 3 to 15 psi, or 0.2 to 1.0 bar or kg/cm<sup>2</sup>, as specified.

**Chart Drive**

Electric, 19 mm (3/4 in) per hour chart speed. 24 or 120 V ac, 50 or 60 Hz or 240 V ac, 50 Hz, as specified. Meets Class I, Group D, Division 2 requirements. Other drives optionally available.

**Pens**

Up to four precision formed steel pens, capillary type. First is red, second is green, third is blue, and fourth is violet.

**Ink**

High capacity, four compartment, refillable reservoir. Accessible for filling and priming from the front of panel without disturbing the operation, by partially withdrawing the recorder from the shelf.

**Supplies**

Two 16 day SCANFOLD charts supplied. 102 mm (4 in) calibrated width. 1/2 hour time divisions, based on 19 mm (3/4 in) per hour chart speed. Select from Chart and Dial Catalog 600. One 30 cm<sup>3</sup> (1 fluid oz) ink bottle per pen to furnish up to 12 months ink supply.

**Upper Scale**

Horizontal scale above chart for primary variable (red pen), select from Chart and Dial Catalog 600.

**Tear-Off Bar and Chart Guide Scale**

One scale (green) available for second variable on two-pen recorder. Two scales (green and blue) available for second and third variables on three-pen recorder. Three scales (green, blue, and violet) available for second, third and fourth variables on four-pen recorder. 102 mm (4 in) calibrated width, select from Chart and Dial Catalog 600.

**Ambient Temperature Limits**

5 and 50°C (40 and 120°F)

**Response**

Pen speed less than one second for full scale travel (may be damped to slower speed)

**Nameplate**

Mounted in chassis door. Black laminated plastic with 3 mm (1/8 in) high white letters. Maximum of 4 lines, 50 letters or spaces per line.

**Approximate Mass****STANDARD RECORDER WITHOUT PENS**

6.8 kg (15 lb)

**for each pen**

Add 0.23 kg (0.5 lb)

### OPTIONAL FEATURES

#### Chart Drives

Refer to PSS 3-12A4 A for single and two speed electric chart drives and pneumatic chart drives.

#### Input Signal

3 to 27 psi

### ORDERING INSTRUCTIONS – SPECIFY

1. Model Number
2. Input Signal
3. Recorder Chart Drive
4. Mounting Angle
5. Range of Variable(s)
6. Chart Number (range or ranges)
7. Recorder Supplies
8. Nameplate Data
9. Optional Features
10. Tag and Application

Refer to PSS 2B-12B1 A to select and specify 102 Series Shelf Mounting Equipment.

Refer to PSS 2B-12B1 B to select and specify 101 Series Shelf Mounting Equipment.

### DIMENSIONS

Refer to DP 017-422.