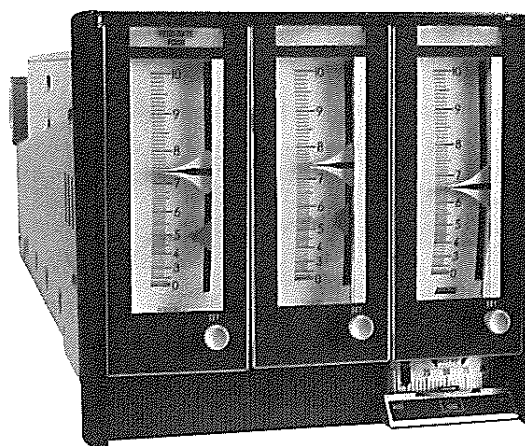


130 SERIES PNEUMATIC CONSOTROL AUTO- SELECTOR CONTROL SYSTEM

- One Final Actuator
 - to prevent any of several process measurements from exceeding their set points.
- Continuous Measurement
 - variables are measured and control is transferred to the one that is tending to exceed its limit.
- Auto/Manual Switch
 - smooth transfer by means of a single 2-position switch.
 - balanceless, bumpless.
- A Complete System Consists of:
 - one 130MS (local set) or 130FS (local/remote set) controller with manual transfer unit.
 - one or more 130MA (local set) or 130FA (local/remote set) controllers without manual units.
 - rack mounted high or low selector relays.
 - a rack mounted seal valve.



The 130 Series Pneumatic CONSOTROL Auto-Selector Control System controls two or more related variables within preset limits.

For complete specifications, refer to General Specification Sheet GS 2B-4H1 D.

FUNCTIONAL SPECIFICATIONS

Supply Pressure: 140 to 150 kPa or 20 to 22 psi.

Input/Output Signal: 20 to 100 kPa or 3 to 15 psi, as specified.

Mode Adjustment Limits:
Proportional Band: 5 and 500%.

Integral Action: 0.01 and 50 minutes per repeat.

Derivative Action: 0.01 and 50 minutes.

Ambient Temperature Limits: -20 and +65°C (0 and 150°F).

Control Action Reversal: The control action is reversed by a 90 degree rotation of the reversing switch.

Auto/Manual Transfer Unit: A 2-position switch lever located on the front of the manual unit is used to switch directly from automatic to manual and from manual to automatic without bumping the process.

PERFORMANCE SPECIFICATIONS

Accuracy:
Measurement and Set Point Indicators: $\pm 0.5\%$ of calibrated span.

Output Indicator: $\pm 2\%$ of calibrated span.

Repeatability:
Measurement and Set Point Indicators: Better than 0.25% of calibrated span.

Dead Band:
Automatic Control Unit: Less than 0.1% of calibrated span.

Measurement and Set Point Indicators: Less than 0.1% of calibrated span.

Alignment Error:
Automatic Control Unit: Less than 0.5% of calibrated span.

PHYSICAL SPECIFICATIONS

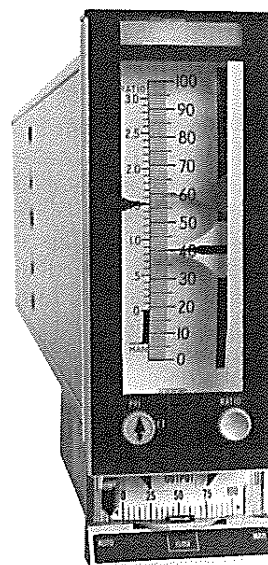
Mounting: These controllers are designed for flush mounting in vertical panels 3 to 25 mm (0.13 to 1 in) thick using 102 or 101 Series Shelves. Each controller requires 1 unit of shelf capacity. They may be calibrated for mounting in a panel, inclined up to 75 degrees from vertical, with the rear of the instrument lower than the front.

Connections: Separate electric and pneumatic connectors are located on the rear of the chassis in accordance with the standard arrangement for 101, 102 Series Shelves..

130Z SERIES PNEUMATIC CONSOTROL RATIO CONTROLLERS

- **Versatile**
— wide variety of standard ranges.
- **Self-Contained**
— all functions fully enclosed.
- **Indicator Sharing Switch**
— permits indication of the uncontrolled or primary variable before and after it is multiplied by the ratio mechanism.
- **Local Setting**
— set point may be manually adjusted.

For complete specifications, refer to General Specification Sheet GS 2B-4H1 F.



The 130Z Series Pneumatic CONSOTROL Ratio Controllers maintain a controlled or secondary process variable at a preset ratio to an uncontrolled or primary variable.

FUNCTIONAL SPECIFICATIONS

Supply Pressure: 140 to 150 kPa or 20 to 22 psi.

Input/Output Signal: 20 to 100 kPa or 3 to 15 psi, as specified.

Mode Adjustment Limits:
Proportional Band: 5 and 500%.

Integral Action: 0.01 and 50 minutes per repeat.

Derivative Action: 0.01 and 50 minutes.

Ambient Temperature Limits: -20 and +65°C (0 and 150°F).

Control Action Reversal: The control action is reversed by a 90 degree rotation of the reversing switch.

Auto/Manual Transfer Unit: A 2-position switch lever located on the front of the manual unit is used to switch directly from automatic to manual or from manual to automatic without bumping the process.

PERFORMANCE SPECIFICATIONS

Accuracy:
Measurement, Set Point, and Ratio Indicators: $\pm 0.5\%$ of calibrated span.

Output Indicator: $\pm 2\%$ of calibrated span.

Repeatability:
Measurement and Set Point Indicators: Better than 0.25% of calibrated span.

Dead Band:

Automatic Control Unit: Less than 0.1% of calibrated span.

Measurement and Set Point Indicators: Less than 0.1% of calibrated span.

Alignment Error:

Automatic Control Unit: Less than 0.5% of calibrated span.

PHYSICAL SPECIFICATIONS

Mounting: These controllers are designed for flush mounting in vertical panels 3 to 25 mm (0.13 to 1 in) thick using 102 or 101 Series Shelves. Each controller requires 1 unit of shelf capacity. They may be calibrated for mounting in a panel inclined up to 75 degrees from vertical with the rear of the instrument lower than the front. Specify the mounting angle.

Connections: Separate electric and pneumatic connectors are located on the rear of the chassis in accordance with the standard arrangement for 101, 102 Series Shelves.

Nameplate: White translucent plastic with 2.5 mm (0.1 in) high black letters. There can be a maximum of 2 lines with 17 characters or spaces per line.

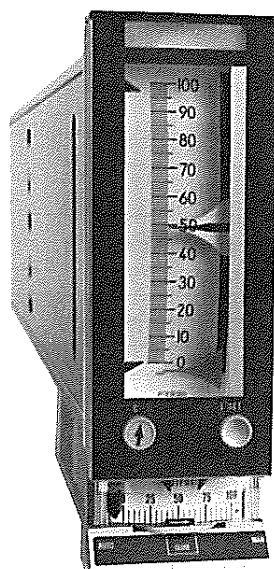
Pointers:

Ratio set, black; controlled or secondary variable, red; uncontrolled or primary variable, black on white.

Output: Red.

130K SERIES COMPUTER SET INDICATING CONTROLLERS

- **Self-Contained**
 - set point drive and interface circuitry enclosed in controller chassis.
- **Dependable**
 - drive coupled directly to set point shaft.
- **Choice of Feedback Signals**
 - pneumatic feedback of set point signal.
 - voltage feedback proportional to set point.
 - voltage feedback proportional to process measurement.
- **Positive Set Point Limits**
 - accurate and repeatable.
- **Inherent Set Point**
 - during computer or electrical failure, set point remains at last indicated value.



The 130K Series Computer Set Indicating Controllers provide supervisory set point analog control of a process.

For complete specifications, refer to Product Specification Sheet PSS 2B-4H1G.

FUNCTIONAL SPECIFICATIONS

Input/Output Signal: 20 to 100 kPa or 3 to 15 psi, as specified.

Supply Pressure Limits: 140 and 150 kPa or 20 and 22 psi.

Power Requirements: 250 mA dc at 24 V dc, +10, -0% (300 mA dc with -LL option).

Mode Adjustment Limits:
Proportional Band: 5 and 500%.

Integral Action: 0.01 and 50 minutes per repeat.

Derivative Action: 0.01 and 50 minutes.

Ambient Temperature Limits: 5 and 65°C (40 and 150°F).

Control Action Reversal: 90 degree rotation of reversing switch reverses controller action.

Scale:
Measurement and Set Point Indicators: 100 divisions, scaled as specified, 100 mm (4 in) graduated length.

Output Indicator: 20 divisions from 0 to 100% reading output pressure, continuously indicates automatic or manual output.

Nameplate: White translucent plastic with 2 mm (0.1 in) high black characters. Maximum of 2 lines with 20 characters or spaces per line.

Pointers:
Process Measurement: Red.

Set Point: Black.

Output: Red.

Set Point Resolution: 0.1% of calibrated span per input closure, nominal.

Status Contact Rating:
Computer/Local Switch: 100 mA dc maximum at 24 V dc.

Auto/Manual Switch: 100 mA dc maximum at 24 V dc.

Set Point Limit Switches: 100 mA dc maximum at 24 V dc.