

## 1750N Manual Loader/Output Holders

- Output held at last value
- Manual control & output display
- Feedback circuit for bumpless transfer
- Compatible with MOD 30ML, MODCELL and other control products



***Manual Loader/Output Holder  
1750N***

## PRODUCT DESCRIPTION

The 1750N functions as an output holder and a manual loader when connected to a MOD 30ML controller.

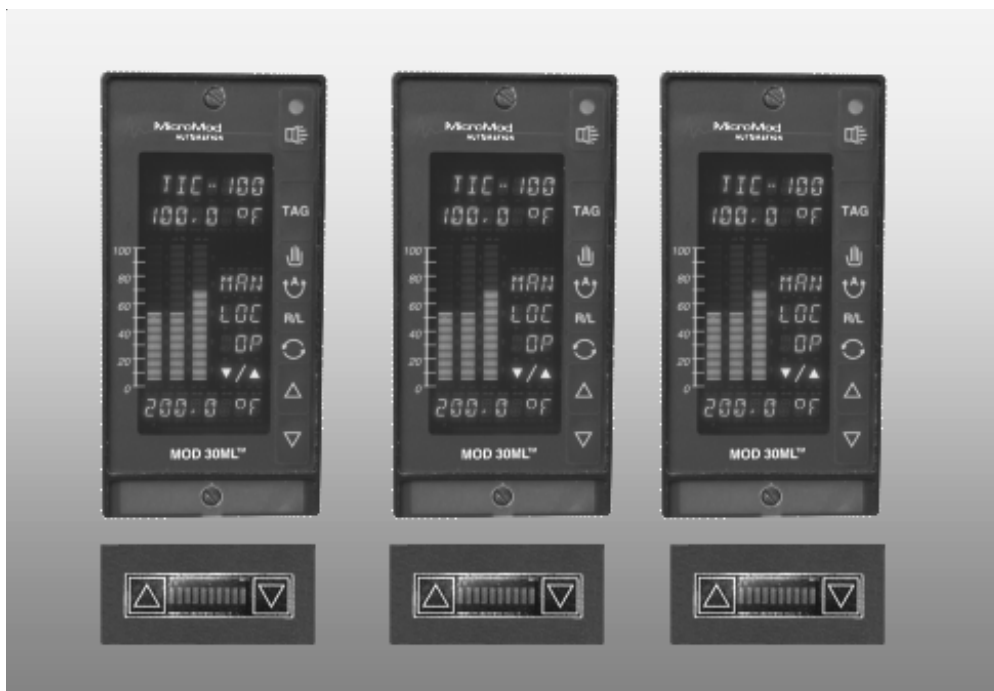
The 4-20mA output from the MOD 30ML controller is wired in series with the 1750N, and then to the field. As long as the output from the controller is within the specific limits, the output holder output is identical to the input (controller output signal). In case of controller failure resulting in loss of output, the Output Holder retains the last output, thereby enabling the defective instrument to be replaced without interruption to the process. A separate output return signal is fed back to the controller, so that when the defective instrument is replaced the output will automatically match that of the Manual Loader for bumpless transfer of control.

When the 1750N is installed, the output may still be viewed and manipulated when the controller is removed from the panel for service.

Up/Down pushbuttons are provided on the front panel, allowing direct manipulation of the output by the operator in the event of controller failure. Output indication is provided by a 10-segment LED bar graph. Screwed terminal connections are provided for interconnection with the MOD 30ML terminal block.

One Analog Input is required on the MOD 30ML for the feedback circuit. Either a built-in analog input or a plug-in analog input module may be used.

A standard configuration strategy for the MOD 30ML with the feedback circuit is provided in the library of the Visual Application Designer configuration tool for MOD 30ML.



## SPECIFICATIONS

### ANALOG INPUT

|                  |            |
|------------------|------------|
| Span (0 to 100%) | 4 to 20 mA |
| Lower Limit      | 2.72 mA    |
| Upper Limit      | 21.28 mA   |

### ANALOG OUTPUT (I out)

|                  |            |
|------------------|------------|
| Span (0 to 100%) | 4 to 20 mA |
| Lower Limit      | 2.72 mA    |
| Upper Limit      | 21.28 mA   |

### CURRENT RETURN (I Return)

|                  |           |
|------------------|-----------|
| Span (0 to 100%) | 1 to 5 mA |
| Lower Limit      | 0.68 mA   |
| Upper Limit      | 5.32 mA   |

### CALIBRATED ACCURACY (% of span)

|   |                 |
|---|-----------------|
| I out, Run mode<br>(with respect to analog input)                   | $\pm 0.5\%$ max |
| I out, Hold mode<br>(with respect to run mode analog input)         | $\pm 1.0\%$ max |
| I return, Run mode<br>(with respect to analog input span)           | $\pm 0.8\%$ max |
| I return, Hold mode<br>(with respect to run mode analog input span) | $\pm 1.2\%$ max |

### INDICATION ACCURACY

|                      |                   |
|----------------------|-------------------|
| 1 bar<br>output span | $10\% \pm 2\%$ of |
|----------------------|-------------------|

### INPUT/OUTPUT CHARACTERISTICS

|                                     |                  |
|-------------------------------------|------------------|
| Analog input resistance             | 250 ohms typical |
| Analog output (I out)<br>Resistance | 50 kohms min     |
| Open circuit output voltage         | 24V dc max       |

### ANALOG OUTPUT LOAD CAPABILITY

|             |                |
|-------------|----------------|
| Resistance  | 800 ohms max   |
| Capacitance | 10 micro F max |
| Inductance  | 10 H max       |

### POWER SUPPLY REQUIREMENTS

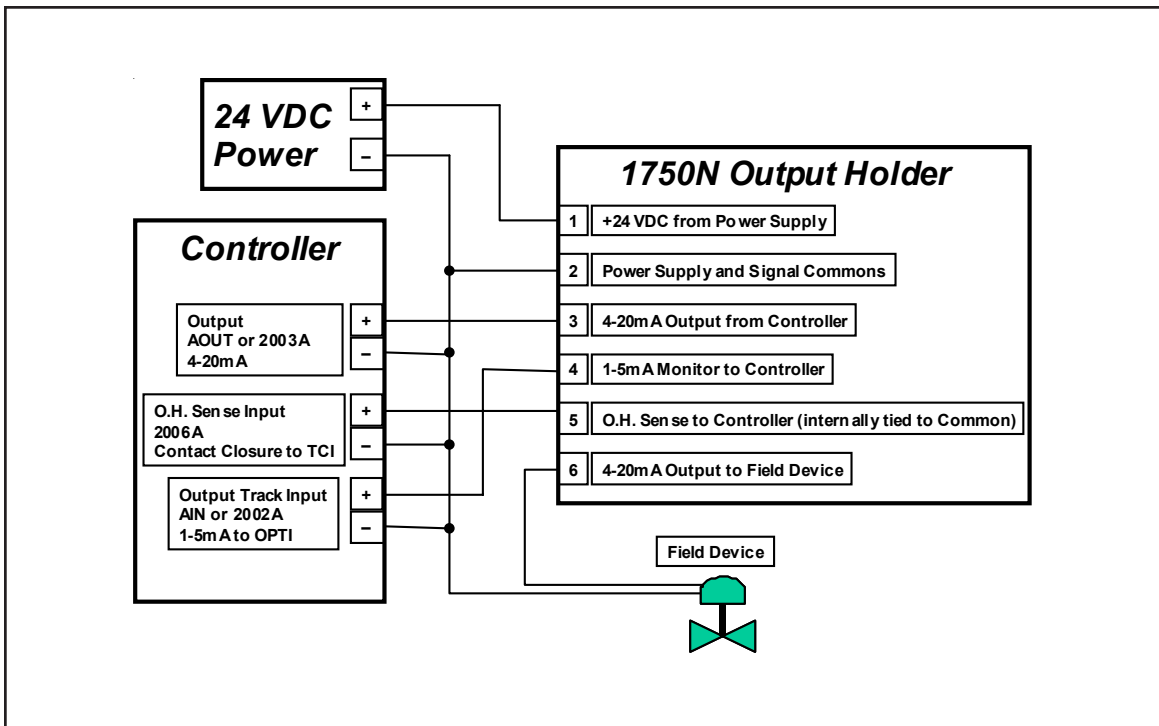
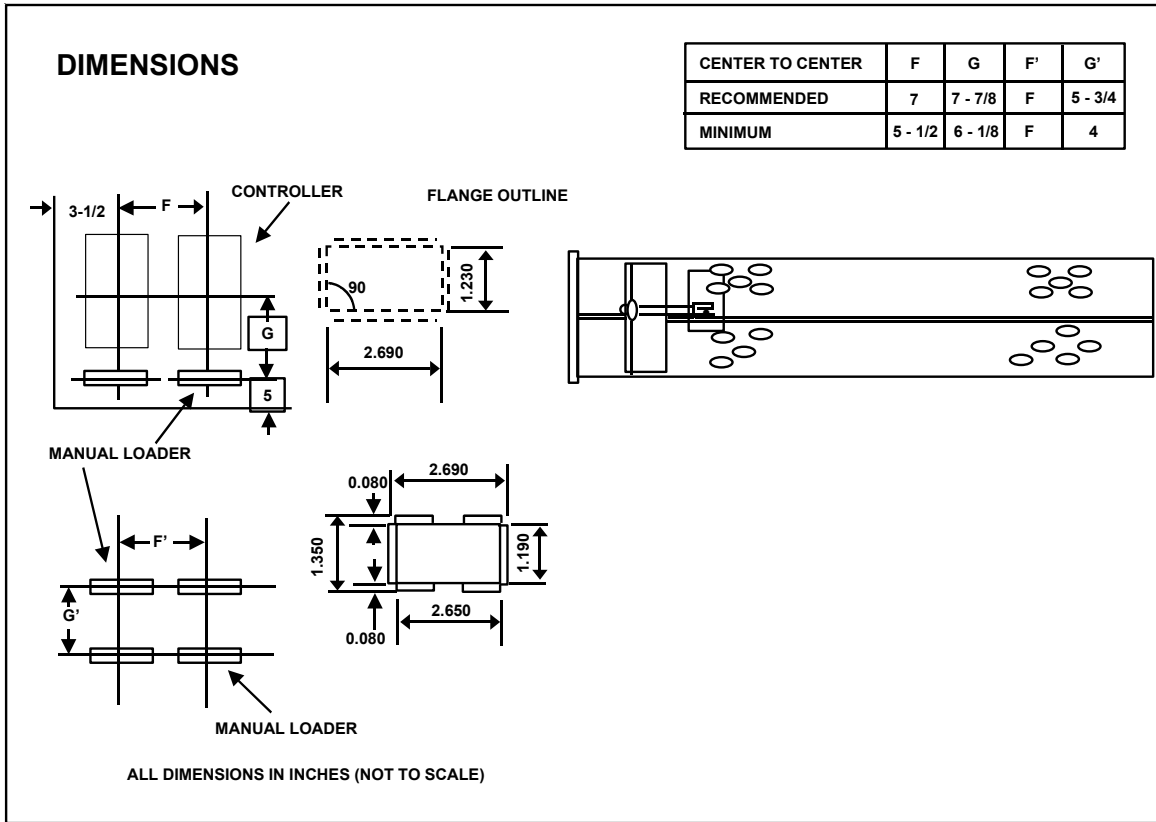
|                           |                    |
|---------------------------|--------------------|
| Normal Operating range    | 23V to 28V dc      |
| Allowable Operating range | 20V dc to 28V dc   |
| Allowable Ripple          | 1.0 V peak to peak |
| Maximum Current           | 200 mA max         |

### ENVIRONMENTAL CHARACTERISTICS

|                       |  |
|-----------------------|--|
| Humidity effect       | $\pm 0.1\%$ from 25<br>to 95% relative<br>humidity at 9°F<br>(32 °C) |
| Static discharge      | $\leq 10$ kV   |
| RFI                   | SAMA standard<br>PMC 33.1.1978<br>class 1,<br>Bands A,B & C          |
| Operating temperature | +41°F (+5°C) to<br>122°F (50°C)                                      |
| Storage temperature   | -40°F (-40°C) to<br>167°F (75°C)                                     |

### PHYSICAL CHARACTERISTICS

|        |          |
|--------|----------|
| Width  | 69mm     |
| Depth  | 292mm    |
| Height | 35mm     |
| Weight | 600 GMS. |



## ORDERING INFORMATION

NOTE: One analog input per output holder is required on the MOD 30ML or MODCELL Controller to accommodate the feedback circuit feed for bumpless transfer. One output holder is required for each output to be maintained.

| <u>Code No.</u> | <u>Description</u>          |
|-----------------|-----------------------------|
| 1750NZ10001A    | Manual Loader/Output Holder |

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TermoProcesos e Instrumentación, SA. de CV.  
Filósofos 301-101A Col. Tecnológico  
Monterrey, NL. México    [ventas@termoprocesos.com](mailto:ventas@termoprocesos.com)  
[www.termoprocesos.com](http://www.termoprocesos.com)    [tpisysmx@intercable.net](mailto:tpisysmx@intercable.net)  
52 (81) 83 59 61 30 - 52 (81) 83 59 62 29 - Fax 52 (81) 83 58 37 77