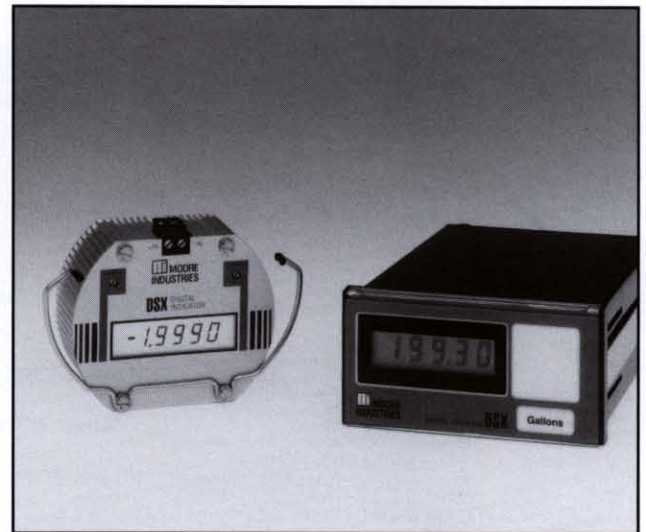


## Description

The DSX loop-powered digital indicator accepts a 4-20mA current input signal from a process measurement device such as a flowmeter, temperature transmitter, or level transmitter. It scales the signal to represent engineering units and then displays the resulting signal in digital form on a 3-1/2 active-digit LCD. The numerals are formatted with a selectable trailing dummy zero which is used as an aid in scaling engineering units. Decimal units may be expressed in tenths, hundredths, or thousandths. The DSX is functionally based on a 2000-count, dual slope, integrating analog-to-digital converter that provides for an indicator display range from -19990 to +19990 (including the dummy zero).

In addition, the LCD display of the DSX is updated at a rate of 2.5 times per second, nominal. For a full span step input, display response is stabilized in one second, nominal.

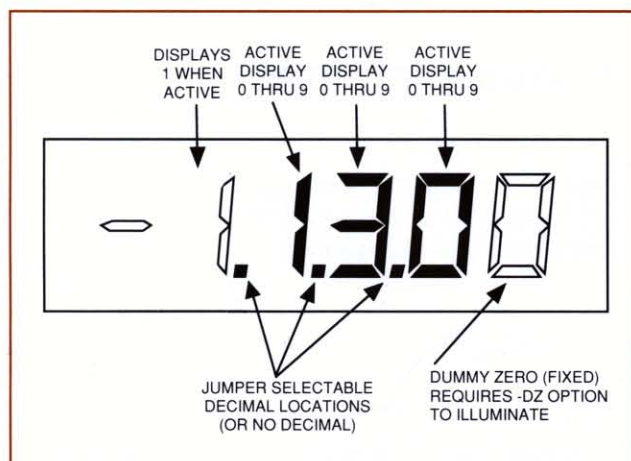
An aluminum hockey-puck housing is standard for the DSX, and is available with either spring clips for mounting in an explosion-proof enclosure or with mounting flanges for relay track or surface mounting. Two or 3-hub explosion-proof enclosures are available and can be ordered with either a low-glass dome for on-site display or a high-glass dome for on-site display while mounted with a separate Moore Industries transmitter. All explosion-proof housings are available with or without a pipe mounting assembly for mounting on a 2" pipe. An oil tight NEMA 12 enclosure is also offered.



*The DSX is offered in a field-mount hockey-puck housing, or in a compact panel-mount housing.*

## Features

- **Low voltage drop.** One volt maximum voltage drop reduces power supply requirements and keeps loop-resistance at a minimum.
- **Easy-to-read display.** Large 3-1/2 active-digit LCD features 0.35-inch black numerals over a reflective background for easy viewing of engineering units.



**Figure 1.** DSX 3-1/2 Active-Digit LCD.

### Certifications



**FM** Explosion-proof, Class I, Division I, Groups B, C and D (refer to FM prefix on enclosures)



**CENELEC** Flameproof, EExd IIC T6 IP66 (refer to S prefix on enclosures)

**SAA** Explosion-proof, Ex d IIC T6 IP66 (refer to S prefix on enclosures)

# DSX

Digital Indicator

## Specifications

Characteristics		Adjustments	Housings (continued)
<b>Display Type:</b> LCD, 8.9 mm (0.35 in.) high black digits over reflective background <b>Format:</b> 3-1/2 active digits with selectable trailing dummy zero for scaling purposes <b>Range:</b> -19990 to +19990 with minimum span of 2000 counts (includes dummy zero). Consult factory for availability of non-zero zeros <b>Decimal Points:</b> 3 positions, DIP Switch selectable <b>Over-range:</b> 3 least significant active digits blank out when the display is driven past $\pm 1999$ <b>Update Rate:</b> 2.5 times per second, nominal <b>Zero Offset:</b> $\pm 100\%$ of adjusted display range	<b>Span and Zero:</b> External Multiturn potentiometers. <b>Display:</b> Internal jumpers allow user configuration of the display between 2000 to 19990.  <b>Weight</b> 454 grams (1 pound)	<b>FL</b> Aluminum case (HP) with mounting flanges for relay-track or surface mounting <b>2LG*</b> Explosion-proof, low glass dome, 2 hub <b>2HG*</b> Explosion-proof, high glass dome, 2 hub <b>3LG*</b> Explosion-proof, low glass dome, 3 hub <b>3HG*</b> Explosion-proof, high glass dome, 3 hub <b>FLD</b> Aluminum case (HP) with mounting flanges suitable for 3-1/2 inch relay-track mounting <b>OTH</b> Oil tight, NEMA, 12 enclosure <b>P</b> Standard 1/8 DIN panel mount housing.	
Performance		Ordering Specifications	
<b>Accuracy:</b> 0% to 100% $\pm 0.1\%$ of span $\pm 1$ count <b>Temperature Range:</b> Accuracy specified 0°C to 70°C (32°F to 158°F) ambient only. Unit may be operated or stored -40°C to 85°C (-40°F to 185°F).	<b>Unit</b> <b>DSX</b> Digital Indicator  <b>Input</b> <b>4-20MA</b> 4-20mA  <b>Display</b> Specify desired range within -19990 to +19990 (includes dummy zero). For assistance, see the model number example below.  <b>Power</b> <b>1.0VLP</b> 1.0 Volts Loop Powered  <b>Options</b> <b>-DZ</b> Dummy zero displayed following last active digit  <b>Housings</b> <b>HP</b> Standard aluminum case with spring clips for mounting in explosion-proof enclosures <b>HPD</b> Aluminum case with clip assembly	<b>*F</b> (prefix) on explosion-proof enclosures indicates CENELEC approval (e.g., <b>F2LG</b> ) <b>FM</b> (prefix) on explosion-proof enclosures indicates FM approval (e.g., <b>FM2LG</b> ) <b>S</b> (prefix) on explosion-proof enclosures indicates SAA approval (e.g., <b>S2LG</b> ) <b>P</b> (suffix) indicates unit comes equipped with base plate and U-bolts for mounting on a 2-inch pipe (e.g., <b>2LGP</b> )	
<b>Ambient Temperature Effect:</b> $\pm 0.02\%$ of span/°C, maximum			
<b>When ordering specify:</b> Unit / Input / Display / Power / Options [Housing]		<b>Model number example:</b> DSX / 4-20MA / 0.00-199.90 / 1.0VLP / -DZ [HPD] DSX / 4-20MA / 0.0-100.0 / 1.0VLP [P]	

## Installation

Housing dimensions and terminal designations for the specific unit ordered are included on the housing sheet supplied with the unit.

## Ordering Information

To construct the proper model number required to order a particular unit, specify the appropriate bold face entries from the specification table. Refer to the model number example presented above for assistance during this procedure.



United States  
Tel: (818) 894-7111  
FAX: (818) 891-2816

The Interface Solution Experts

Australia  
Tel: (02) 525-9177  
FAX: (02) 525-7296

Belgium  
Tel: 03/235.35.44  
FAX: 03/271.00.17

Netherlands  
Tel: (0)344-617971  
FAX: (0)344-615920

United Kingdom  
Tel: 01293 514488  
FAX: 01293 536852