

INFINITY® Strain Meter / Controller

The **INFS** strain gage meter is a microprocessor-based indicator/ controller with enhanced features that allow you to easily configure the unit for virtually any application. It is compatible with most strain gage sensors such as load cells and pressure transducers.



Shown with LC101 Series Load Cell
Sold Separately

NEWPORT PRODUCT INFO	
•	MANUAL - PDF Version
•	QUICKSTART
•	OPTIONS & ADDENDUMS
•	SOFTWARE
•	MECHANICAL
•	PRICE
REQUIRES ADOBE ACROBAT - HELP	



INFS

- ✓ 6 Digits
- ✓ Optional Split Meter System
- ✓ Four Isolated Open Collector Outputs
- ✓ Wide Selection of dc Voltage and Current Ranges
- ✓ Ratiometric Inputs
- ✓ Tare
- ✓ 1.5 to 11 and 24 Vdc Sensor Excitation
- ✓ Peak and Valley Detection and Memory
- ✓ Large Digital Offset Capabilities Enabling Easy Scaling in Engineering Units
- ✓ Smart Filtering Detects the Difference Between a Spike or Process Change (Patent Applied For)
- ✓ Selectable Decimal Point and Read Rates of up to 13 Readings/Sec
- ✓ Configurable Via Front Pushbuttons or Via RS-232 or RS-485

OPTIONS

- ✓ Isolated Dual 7 Amp Form C Relays
- ✓ Isolated Parallel BCD Output
- ✓ Isolated Analog Output of 0-10 Vdc, 0-5 Vdc, 1-5 Vdc, 0-20 mA dc and 4-20 mA dc
- ✓ Isolated Serial RS-232
- ✓ Isolated RS-485, Addressable up to 199 Units

The **INFINITY®** strain gage meter can be configured, via the five front-panel pushbuttons and/or the optional serial communications boards, to accept any of a variety of dc voltage ranges (some ranges plus unipolar or bipolar are first selected via a jumper located at the top of the instrument housing) and display them in engineering units.

The **INFW** scale meter offers the same features as the INFS strain meter, plus it is easily integrated into your data acquisition systems, PLCs or other computer-controlled systems with the optional inputs. Other features include dual relay or BCD output, isolated analog output, RS-232 or RS-484 serial communications options, auto or sequential tare, class selection, and display of units of measure. Self-diagnostics are performed automatically on power-up.

These meters provide both software and hardware lockout configurations which let you define the parameters, from setpoint adjustment to total reprogramming. Users can scale and offset their input signal into any engineering units desired. This is accomplished by the use of an exclusive two-data point method of scale and offset that eliminates the signal errors transmitted from a sensor. The meter provides a choice of sensor excitations of 1.5 to 11 Vdc or 24 Vdc for sensors such as load cells, strain gages, and pressure transducers.

INFZS Split Meter with remote display



MECHANICAL REFERENCE

PRICE LIST

**Low Range Constant
Moment Beam Load Cell
with 4-Direction Overload Stops**



SPECIFICATIONS

Accuracy: $\pm 0.005\%$ rdg

Span Temperature Coefficient: ± 15 ppm/ $^{\circ}\text{C}$

Step Response: 1 sec to 9.9%

Warm-up to Rated Accuracy: 50 min

Operating Ambient: 0 to 50°C (32 to 122°F), 95%RH, non-condensing

Storage Ambient: -40 to 85°C (-40 to 185°F)

Power: 115 or 230 Vac, 49-400 Hz; 10 to 32 Vdc

Power Consumption: 6 W nominal, 10 W max.

Normal Mode Rejection: 60 dB

Common Mode Rejection: 120 dB

Common Mode Voltage: 1500 V peak per Hv test

Conversion: dual-slope technique

Resolution: 15-bit

Reading Rate: 3/sec or 13/sec, 60 Hz; 3/sec or 12/sec, 50 Hz

Display: red or green 6-digit, 14-segment, 13.7 mm (0.54"); 4 alarm indicators

Dimensions: 48 H x 96 W x 165 D mm (1.89" x 3.78" x 6.5")

Panel Cutout: 45 H x 92 W mm (1.772" x 3.622"); 1/8 DIN

Weight: 574 g (1.27 lb)

TTL Outputs: four, isolated open collector; rated 150 mA at 1 V sink, 30 V open

BCD Output: isolated, tri-state, TTL/CMOS compatible; external 5 V supply for isolated; internal 5 V supply for non-isolated

Dual Relays: form C, 7 A at 30 Vdc or 230 Vac

Four Relay Option: dual 7A relays and dual 1 A relays

Analog Output: 0-5 V/1-5 V/0-10 V/0-20 mA/4-20 mA, user selectable; 354 Vp isolation; 14-bit resolution; 0.1% accuracy, 50 msec step response

RS-232 Communications: 300/600/1200/2400/4800/9600/19.2k baud; RJ11 4-wire connection; complete program setup and message display capability; programmable to transmit current display, alarm status, min/max, actual measured input value and status

RS-485 Communications: 300/600/1200/2400/4800/9600/19.2k baud; RJ12 6-wire connection; addressable from 0 to 199

Voltage Input Ranges: 0-100 mV, 0-1 V, 0-5 V, 1-5 V, 0-10 V, 0-100 V, ± 50 mV, ± 500 mV, ± 5 V, ± 50

Current Input Ranges: 0-20 mA, 4-20 mA

Input Configuration: single-ended
Polarity: unipolar/bipolar, programmable
Span Adjustment: +0.00001 to 500,000, programmable
Offset Adjustment: 0 to 999,999 or 0 to -99,999; programmable
Sensor Excitation: 10 V at 30 mA for bridge; 24 V at 25 mA for loop power

To Order (* insert number code to complete model number)

Basic Model	Power/ Display	Control Output	Analog Output	Serial Output	Input Signal	Description
INFS	(*)	(*)	(*)	(*)	(*)	Strain gage/load cell panel meter
INFZS	(*)	(*)	(*)	(*)	(*)	Strain meter with remote display
	0					115 Vac power, red LED display
	1					230 Vac power, red LED display
	2					115 Vac power, green LED display
	3					230 Vac power, green LED display
	4					10-32 Vdc power, red LED display*
	5					10-32 Vdc power, green LED display*
		0				Four NPN open collector transistors
		1				Isolated parallel BCD
		2				Two 7 A relays
		3				Two 7 A relays and two 1 A relays**
			0			No analog output
			1			Isolated analog output
				0		No serial output
				1		Isolated RS-232
				2		Isolated RS-485
					(*)	Specify range signal from chart below.*

** 4 Relay option is not available with 10-32 Vdc Power Option

INPUT SIGNAL

Range Code	Range		Range Code	Range		Range Code	Range
DC1	0-100 mV		DC5	0-10 Vdc		DC9	±5 Vdc
DC2	0-1 Vdc		DC6	0-100 Vdc		DC10	±50 Vdc
DC3	0-5 Vdc		DC7	±50 mVdc		C1	0-20 mA
DC4	1-5 Vdc		DC8	±500 mVdc		C2	4-20 mA

ADD-ON-OPTIONS

Model	Description		Model	Description
BL	Blank Lens		9SC4	9-pin RS-485 connector
FS	Special Calibration		25SC2	25-pin RS-232 connector
9SC2	9-pin RS-232 connector		25SC4	25-pin RS-485 connector

Product Selection (Specify Model Number, see variations below in partnumber builder table)		
Part Number	Description	Qty.
INFS-0000-DC1	INFINITY® strain gage meter, 115 Vac power, red LED display, open collector outputs, 0-100 mV input range	
INFS-0000-C2	INFINITY® strain gage meter, 115 Vac power, red LED display, open collector outputs, 4-20	

INFS-0011-DC1	mA input range INFINITY® strain gage meter, 115 Vac power, red LED display, open collector outputs, analog and RS-232 outputs, 0-100 mV input range
INFS-0200-C2	INFINITY® strain gage meter, 115 Vac power, red LED display, two 7 A relays, 4-20 mA input range
INFS-0211-DC1	INFINITY® strain gage meter, 115 Vac power, red LED display, two 7 A relays, analog and RS-232 outputs, 0-100 mV input range

Part Number Builder

PowerandLEDCOLOR

(1)

(2)

(3)

(4)

(5)

(6)

(7)

INFS - 0 0 0 0 - DC1

Option Descriptions

(1) Meter Type

Select

INFS for STRAIN meter

INFZS for STRAIN split meter with remote display

(2) Power and LED Color

Select

0 for Designates 115 Vac power and red LED display

1 for Designates 230 Vac power and red LED display

2 for Designates 115 Vac power and green LED display

3 for Designates 230 Vac power and green LED display

4 for Designates 10-32 Vdc power and red LED display

5 for Designates 10-32 Vdc power and green LED display

(3) BCD and Control Outputs

Select

0 for Four optically isolated open-collector outputs

1 for Isolated parallel BCD output (BCD1)

2 for Isolated dual 7 A relays (REL1)

3 for Isolated dual 7 amp and dual 1 amp relays (REL4), not available with DC power

(4) Analog Output

Select

0 for No analog output

1 for Isolated analog output (AN03)

(5) Serial Outputs

Select

0 for No serial output

1 for Isolated RS-232 serial output (RS24)

2 for Isolated RS-485 serial addressable output (RS24)

(6) Input Options

Select

DC1 for Process or Strain range 0-100 mV

DC2 for Process or Strain range 0-1 V

DC3 for Process or Strain range 0-5 V

DC4 for Process or Strain range 1-5 V

DC5 for Process or Strain range 1-10 V

DC6 for Process or Strain range 0-100 V

DC7 for Process or Strain range ± 50 mV

DC8 for Process or Strain range ± 500 mV

DC9 for Process or Strain range ± 5 V

DC10 for Process or Strain range ± 50 V

C1 for Process or Strain range 0-20 mA

C2 for Process or Strain range 4-20 mA

(7) Add-on Options

Select

Nothing(leave field blank) for no options

,BL for Blank Lens

NOTE: All combinations may not be valid, check spec sheet for valid part numbers.

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