

# Instrumentation/Process Control

## 430 Bridgesensor

4-20 mA Load Cell Signal Conditioner



### STANDARD FEATURES

- 4-20mA, 0-20mA or  $\pm 12$ mA output
- Potentiometer-adjustable excitation, zero offset and span gain
- 115VAC:  $\pm 10\%$  50/60Hz at 6.5VA  
230VAC:  $\pm 20\%$  50/60Hz at 6.5VA
- Screw terminal connections
- Single-point component design
- Epoxy-encapsulated, sealed enclosure
- Remote sensing for line voltage drop compensation

### SPECIFICATIONS

#### EXCITATION:

4 – 15VDC adjustable

#### LOAD CURRENT:

0 – 100mA maximum (4 350  $\Omega$  load cell @ 8.5VDC; external 15 ohm, 1/2 watt load resistor required)

#### TRANSDUCER CABLING:

6-wire with remote sensing, 4-wire with sense jumpers

#### ANALOG SIGNAL INPUT RANGE:

10 – 50mV

#### LINEARITY:

$\pm 0.1\%$  of full scale output @ 25°C (77°F)

#### TEMPERATURE STABILITY:

59°F to 93°F (15°C to 35°C)  
.02% F.S.O./°C @ 320mA/V maximum  
.02% F.S.O./°C @ 1600mA/V maximum  
Hysteresis 0.1% maximum

#### OUTPUT CURRENT:

0-20mA with adjustable zero and span, 25mA maximum,  
zero stability 6 $\mu$ A/°C maximum

#### OUTPUT LOOP RESISTANCE:

0-500 ohms

#### OUTPUT RESPONSE TIME:

To 1% of final value—200 mS, typical  
To 0.1% of final value—300 mS, typical

#### POWER INPUT:

115VAC:  $\pm 10\%$  50/60Hz @ 6.5VA maximum  
230VAC:  $\pm 20\%$  50/60Hz @ 6.5VA maximum

#### OPERATING TEMPERATURE RANGE:

32°F to 131°F (0°C to 55°C)

#### PACKAGING:

Epoxy potted plastic enclosure with exposed screw terminal connections

#### WEIGHT:

18 oz (510 g)

#### WARRANTY:

One-year limited warranty

See table on next page for electrical connections

### PART # DESCRIPTION

|            |                                |     |
|------------|--------------------------------|-----|
| 20975..... | 430 Bridgesensor, 115VAC ..... | 2lb |
| 35276..... | 430 Bridgesensor, 230VAC ..... | 2lb |

### EST. SHIP WEIGHT

| 430 ELECTRICAL CONNECTIONS |             |                |                |
|----------------------------|-------------|----------------|----------------|
| Screw Terminal             | Function    | Screw Terminal | Function       |
| 1                          | -Sense      | 8              | Current Output |
| 2                          | -Excitation | 9              | Amplifier CMN  |
| 3                          | +Sense      | 10             | +Signal        |
| 4                          | +Excitation | 11             | -Signal        |
| 5                          | Not Used    | 12             | Ext. Gain      |
| 6                          | AC          | 13             | Ext. Gain      |
| 7                          | AC          |                |                |