



**THORNE &  
DERRICK**  
INTERNATIONAL

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# Grid Solutions

# MODEL 1250B

**MORE THAN 30,000  
INSTALLATIONS WORLDWIDE**

**INCON**<sup>®</sup>



## POSITION INDICATOR FOR SYNCHRO TRANSMITTERS

The Model 1250B provides highly accurate, local and remote indication of load tap changer position and other difficult synchro-based position readings

### CAPABILITIES

- Provides absolute local and remote position feedback
- Informs dispatchers of LTC or regular position in real-time
- Performs non-linear conversion
- Interfaces with PLCs and PC-based SCADA systems
- Addressable RS-485 multi-drop communication
- Full duplex RS-232 serial communication

### FEATURES

- Programmable via the serial port
- Programmable Hi/Lo relay limits
- Proportional linear or stepped analog output
- ASCII or MODBUS protocols
- Highly visible 5 digit LED display
- Small size fits in 1/8 DIN panel cut-out
- Highly accurate over multiple turns

### BENEFITS

- Proven reliability - thousands in operation for over 30 years
- Maintenance-free
- Can also be retrofitted to older LTCs with existing synchros
- Easy installation and programming
- Flexible communication options

### APPLICATIONS

For many years this versatile instrument has been a utility and industrial standard for measurement of:

- Transformer load tap changer position
- Works with virtually all transformer LTCs
- Single-phase voltage regulator position
- Liquid level
- Machine position
- Thickness gauging
- Table height

## Grid Solutions

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franklingrid.com

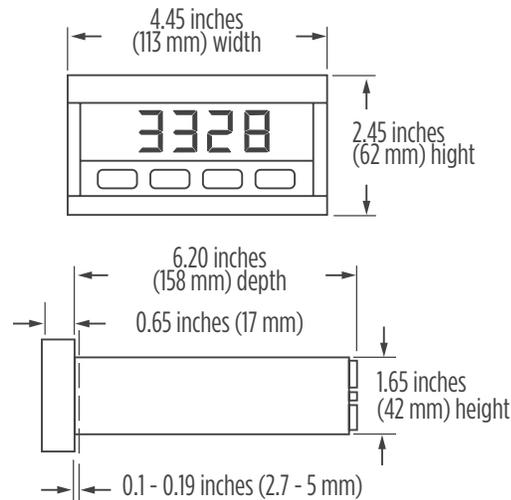
## SPECIFICATIONS

GENERAL	
Input Signal	Synchro (5 wire) 90 V maximum
Resolution	±0.001% of full scale or 6 arc minutes
Accuracy	±0.02% of full scale maximum (0.01% typical)
Temperature Drift	±0.01% per °C
Operating Temp.	0° to 55 °C (standard)
Humidity	10% - 90% non condensing
Weight	24 oz.
Voltage	117+/-10%
Frequency	47-63 Hz
Load	8 Watts, maximum
DISPLAY	
Type	5-digit LED
Digit Height	0.56 in. (14.2 mm)
Viewing Distance	23 ft.
Decimal Point	Field programmable (scaled modes only)
OPTIONAL ANALOG OUTPUT	
Outputs	±1 mA, 0-1 mA, 0-2 mA, 4-20 mA (requires external loop power)
Compliance	10 Volts (0-1 mA, ± mA, 0-2 mA) 500 Ohms (4-20 mA)
Non-Linearity	± 0.1% of full scale
Resolution	12 bits (± 0.025% of full scale)
OPTIONAL HI/LO RELAYS	
Contact Rating	3A@125/250 VAC (resistive), 30 VDC

## OPTIONAL ACCESSORIES

Model	Description
1292	Synchro Transmitter
1292K	Transmitter with bracket
1292KS	Transmitter with bracket and surge protection circuit
1293	Flexible coupling shaft
1945	15 VDC Loop Power Supply (for 4-20 mA Analog Output)
1280	Surge Protection Module

## DIMENSIONAL DRAWING



Panel cut out min.: 1.653 (42mm) x 3.543 (90 mm) (+2/-0 mm)

Panel thickness: 0.1 (2.7 mm) to 0.19 (5.0 mm)

## ORDERING INFORMATION

**1250B-U-W-Y** = options, see below

**U** = Output Options    **0** (0-1 mA)    **1** (± mA)  
                                   **2** (0-2 mA)    **4** (4-20 mA)

**W** = Control            **R** - Hi/Lo Relay Limits OR  
                                   **I** - Input Isolation

**Y** = Comm. Options    **S** - RS-232  
                                   **M** - RS-485 MODBUS

