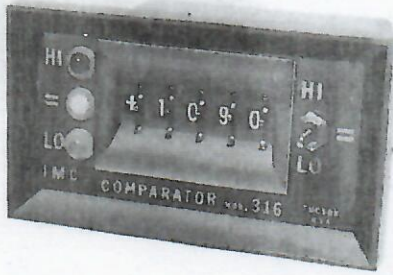


MODEL 316

BCD DIGITAL COMPARATORS Performs Hi-Equal-Low Comparison in Less Than One Microsecond



FEATURES

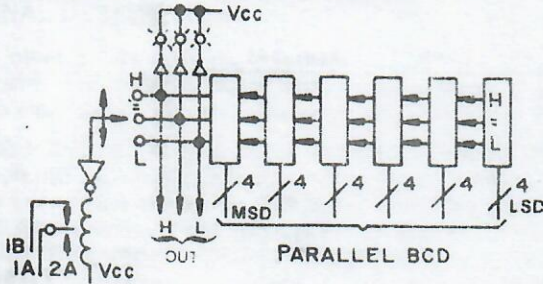
- Full Parallel Loading
- Front Panel LED's Color Coded To Indicate Comparison Mode
- Front Panel Toggle Switch Controls Relay For High, Equal or Low Fail Safe Operation
- Compares Polarity Plus BCD
- Uses Standard 5W Reed Relay with SPDT Contacts
- Compatible With All IMC DPM's, Counters, Clocks

DESCRIPTION

Six models offer choice of TTL/DTL or CMOS logic compatibility and one of four digital capacity options. Built of high quality, highly reliable components available off-the-shelf, Series 316 is bipolar, offering true four quadrant comparisons ideal for bipolar DPM's and bidirectional counters.

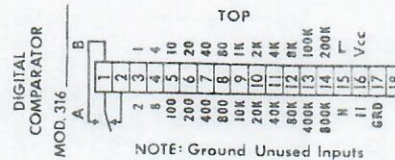
When dual limits are required, either the logic outputs or the relay output can be gated to provide "between limits" operation. Series 316 uses IMC thumbwheel switches with built-in comparators and pull-up resistors. The LED's have a life exceeding 10 years and reed relay rating is 5W @ 120 VAC resistive load.

SERIES 316 BLOCK DIAGRAM



TERMINAL DESCRIPTION (See Connecting Label)

- 1. High Light On:** Lights when BCD input is greater than the value preset on the thumbwheel switches. Also, **High** Logic output will be at Logic 1.
- 2. Equal (=) Light On:** Lights only when BCD and thumbwheel switch values are identical. Also, the "Equal" Logic output goes high **Logic 1** while the High and Low remain "Low" **logic 0**.
- 3. Low Light On:** Lights when BCD data is smaller than the preset value. The **Low** Logic also switches to **Logic 1** (High).
- 4. Relay Control:** The front panel toggle switch controls the relay as follows: If the toggle is in **High** position, the relay will energize only when conditions of no. 1 are met. If the toggle is in **Equal (=)** position, the relay will energize when the BCD input and the preset are identical. When the toggle is in **Low** position, the relay will energize when the conditions in no. 3 are met. The relay can be wired for **Fail Safe** operation in either mode.



SPECIFICATIONS AT 25°C

	TTL MODELS	CMOS MODELS
Comparison Time	1 microsecond max	5 microsecond max.
High, Equal, Low Loading	.8 TTL Loads	.5 CMOS Loads
Relay's Contact Rating	5W @ 120 VAC	5W @ 120 VAC
Contacts Make/Break	1 1/2ms/1ms	1 1/2ms/1ms
Operating Temperature	0° to 55°C	0° to 85°C
Storage Temperature	-25° to +85°C	-25° to -100°C
Weight	5 ounces (170 mg)	5 ounces (170 mg)
Power Requirements	5 VDC ±5% @ 200mA	12 VDC ±20% @ 50mA

NOTES:

1. Connect to Ground (Pin 17A) terminals marked 20K, 4K, 8K, 10K, 40K & 80K. Connect + sign To pin 20K for ±3 1/2 Digit Models. 316XOX
2. Connect to Ground (Pin 17A) terminals marked 2K, 40K, 80K, 100K, 400K, & 800K. Connect + sign to pin 200K for ±4 1/2 Digit Models. 316X1X

ORDERING INFORMATION

MODEL 316 X X X

No. Digits

- 0 ... ±3 1/2
- 1 ... ±4 1/2
- 2 ... 6

Power Supply (External)

- 0 ... None
- 1 ... Open Frame
- 2 ... Power Pack

Logic

- 0 ... TTL/DTL
- 1 ... CMOS

See Page 45 for Power Supply Connector Supplied

MULTI SET POINT CONTROLLER

