

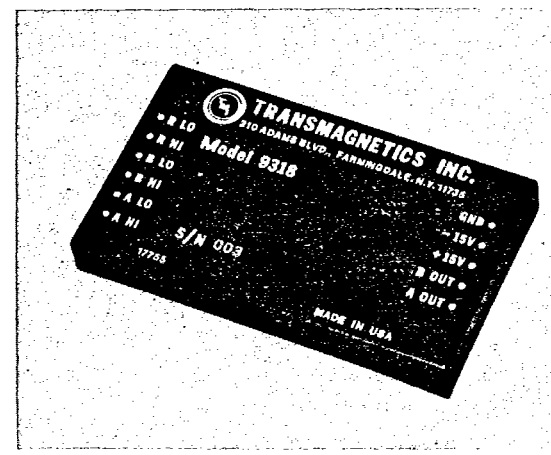
SERIES 9318

Revised March 1987

DUAL CHANNEL PHASE SENSITIVE DEMODULATORS

FEATURES:

- Dual channel
- .1% FS linearity
- Input and reference are transformer isolated
- Output of ± 10 VDC may be scaled to customer's requirements
- Available for 0°C to +70°C or -55°C to +105°C
- Hermetically sealed units on request
- Meets Mil-STD-202D, Methods: 101C, 105B, 106C, 107C, 202D, 204B, and 205D
- High reliability 883B or MIL-M-38510 units on request



DESCRIPTION:

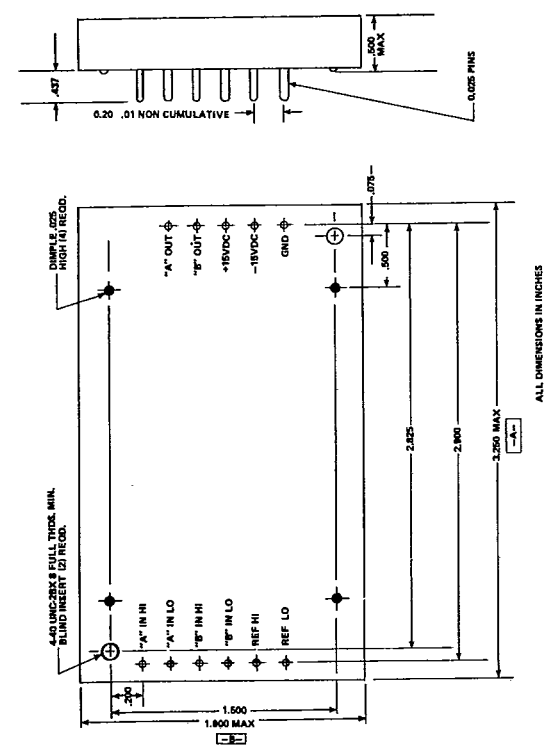
This versatile dual channel phase-sensitive amplitude demodulator contains two separate channels that provide isolated, demodulated DC signals that vary linearly as a function of input signal amplitude. The input voltage for each channel may be different but the reference voltage is common to both channels.

SPECIFICATIONS:

- Signal Input Voltages:** 0 to 115V rms. Different values are available. See part number designation.
- Signal Input Frequency:** 400Hz $\pm 10\%$
- Signal Output:** 0 to ± 10 VDC full scale. Other scale factors available. See part number designation.
- Isolation:** Input and reference are transformer isolated.
- Input Impedance:** 40K
- Frequency Response:** 3 db cutoff 10 Hz min.
- Signal Output Impedance:** 1 Ω max.
- Accuracy & Linearity:** $\pm 0.1\%$ of full scale output.
- Load Impedance:** 2K
- Output Ripple:** 20 mv P-P max.
- Reference Input Voltage:** See Input/Output Code
- Reference Input Frequency:** 400Hz $\pm 10\%$ (other frequencies are available)
- Reference Input Current:** 1.5 mA
- Power Input:** $\pm 15V \pm 5\%$ at 20mA max. for each supply
- Null: (DC) Offset:** ± 20 mv.
- Operating Temperature:** Model C: 0°C to +70°C
Model M: -55°C to +105°C base temperature
- Non-Operating Temperature:** -55°C to +125°C
- Potting:** All units are potted.
- Weight:** 4 oz.
- Hermetic Sealing:** Units are hermetically sealed.

Input/Output Code:

Input Code	Reference (VRMS)	Channel "A" (VRMS)	Channel "B" (VRMS)	Output VDC
1	115	6	12.5	± 2.5
2	30	19	18	± 2.5
3	26	5	25	± 2.5
4	115	26	26	± 2.5
5	26	26	26	± 10.0
6	115	90	90	± 10.0
7	26	5.865	2.356	± 4.0
8	26	5	5	± 10.0
9	26	6.5	6.5	± 10.0



PART NUMBER DESIGNATION:

- 9318*
- Add 883 for Hi-Rel
 - Add H for Hermetic Seal
 - Input/Output Code (See Table)
 - Temperature Range (C or M)

The synchronous demodulators listed below are not buffered and therefore require no DC power. They are fully transformer isolated and have a history of perfect service for over 10 years.

SPECIFICATIONS FOR MODELS:	840	854	A854	854-26	854-90	854-90-11
INPUT:						
Voltage range (V rms):	0 - 5	0 - 20	0 - 11	0 - 26	0 - 90	0 - 11.75
Frequency (Hz) ±10%	400	400	400	400	400	400
Impedance (MIN):	50K	10K	60K	60K	50K	85K
OUTPUT:						
DC Output: (VDC)	±4.3	±10	±12	±10	±10	±10
Unit to Unit Output:	±3%	±3%	±2%	±3%	±3%	±0.2%
Into Load Z:	100K	100K	12.5K	100K	100K	100K
Output Z:	4K	4K	2K	4K	4K	3K
Linearity (% FS):	0.1	0.1	0.1	0.1	0.1	0.1
Gain Stability:						
(-55°C to +85°C)	1%	1%	1%	1%	1%	1%
3DB Freq. Response:(Hz min)	150	150	150	150	150	150
Ripple:	1% or 20 mv	1% or 40 mv	1% or 40 mv	1% or 40 mv	1% or 50 mv	10 mV
Null (MV)	0.5	0.5	0.5	1.0	0.5	2.0
REFERENCE:						
Voltage: (V rms)	26	26	26	26	115	115
Frequency (Hz):	400	400	400	400	400	400
Current (Ma):	15	15	15	15	15	15
Weight: (oz)	2.5	2.5	2.5	2.5	2.5	2.5
Size:	Fig. 1	Fig.1	Fig.1	Fig.1	Fig.1	Fig.2

Operating Temperature Range:

-55°C to +85°C

Storage Temperature Range:

-65°C to +125°C

Potting:

All units are potted to meet high shock and vibration conditions

Special frequencies, input and output characteristics can be supplied.

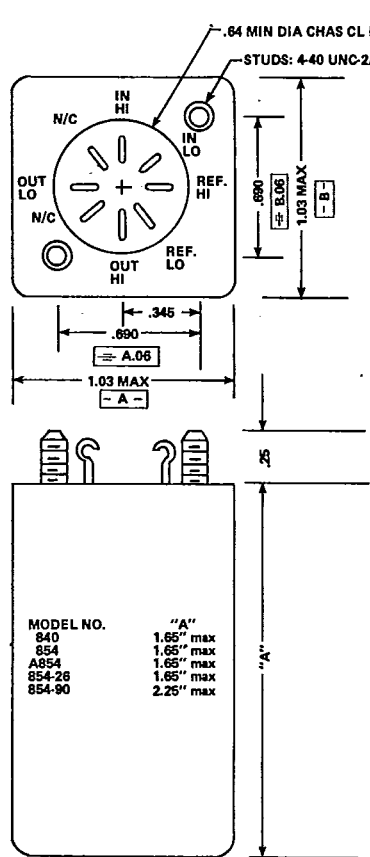


FIGURE 1

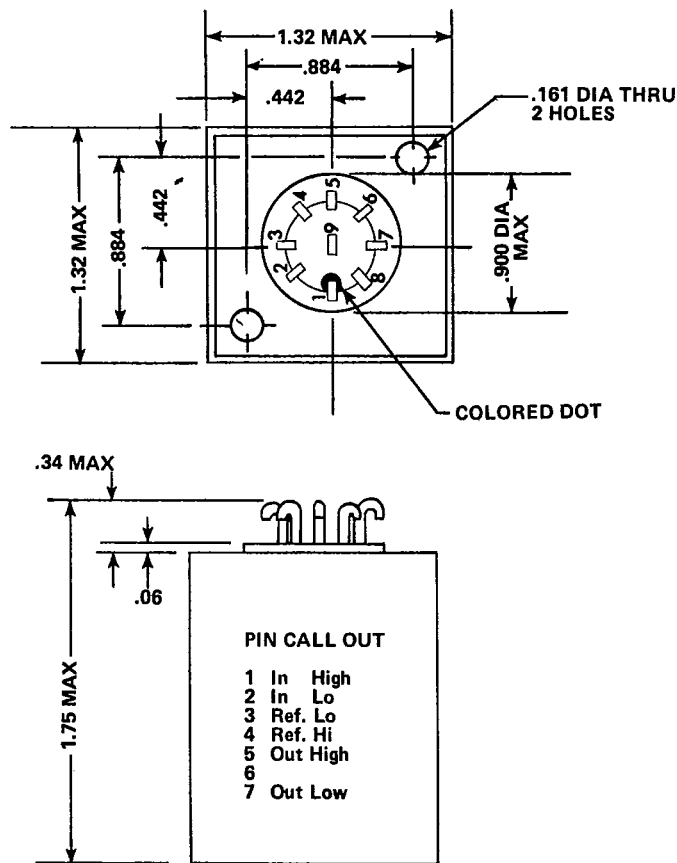


FIGURE 2



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