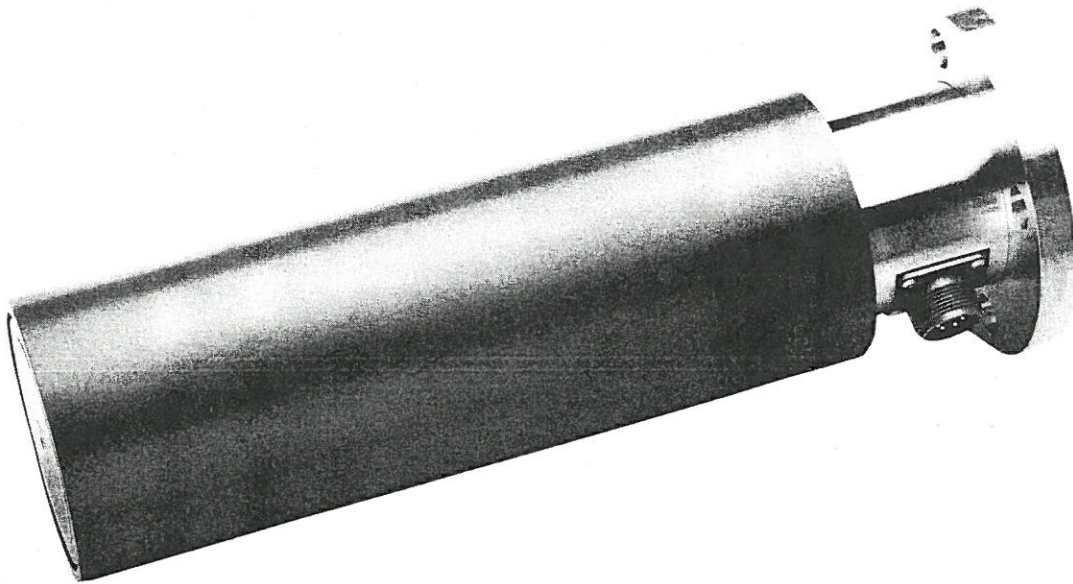




# APPLICATION DATA

## NO. 8907 NW

### NARROW WEB TENSION TRANSDUCERS



#### DESCRIPTION

The Narrow Web Tension Transducer combines a bearing-mounted idler roll and two tension sensing elements in one package. It measures tension in a moving web of paper, film, foil or other material. Typically, it is used in tension control and display systems in label, tag, or tape printing or processing machines where the machine has only one side frame and the idler rolls are cantilevered.

The transducer is highly accurate because it has sensing elements at each end of the idler roll. This arrangement is functionally the same as wide web tension measuring schemes, using two transducers and a separate idler roll. The sensing elements measure total web tension accurately regardless of web position on the roll, and regardless of which edge of the web is tight. Constructed of stainless steel and aluminum for excellent corrosion resistance.

#### BENEFITS

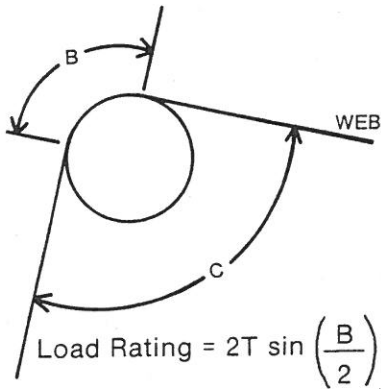
- Promotes improved product quality and reduces waste.
- Does not affect the web. No steering effect, web breakage or length change.
- Measures actual web tension.
- Idler roll is included. Nothing else to buy.
- High accuracy.
- Easy to install.
- Wide operating tension range. Four load ratings.
- Two mounting styles, single bolt or four bolt flange.
- Four widths accommodate webs up to 14 inches wide. Special widths available.
- Used with any standard DFE Tension Controller or Indicator.
- Requires very little space in the machine.

# DOVER FLEXO ELECTRONICS, INC.

# SPECIFICATIONS

- Excitation ..... 5 volts, D.C.
- Output ..... 500 mVDC, nominal
- Gage resistance ..... Half bridge at each end of idler roll. 100 ohms, nominal, each gage.
- Repeatability ..... ± ½% full span, typical
- Combined linearity and hysteresis ..... ± ½% FS
- Temperature range ..... -10° F to 150° F
- Temperature coefficient ..... .02% per ° F, typical
- Deflection ..... .008" max.
- Load ratings ..... 12, 25, 50, 100 lbs.
- Overload rating ..... 600 lbs. minimum, in load direction, without damage
- Web widths ..... 4½, 7, 10, 14 inches
- Mating electrical connector ..... Amphenol MS3106A-14S-6S
- Connector pin assignments ..... A - output (outboard end), B - 5v+, C - 5v-,  
D - output (inboard end), E - 5v-, F - 5v+
- Orientation ..... the transducer may be installed in any position

## SELECTION OF LOAD RATING

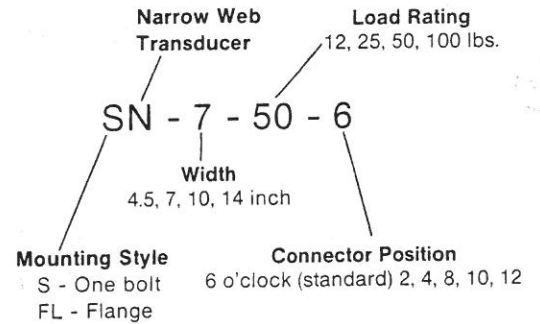


T = maximum web tension  
B = wrap angle = 180° - C°

Angle (Degrees)	SINE	COSINE
0°	.000	1.000
5	.087	.996
10	.174	.985
15	.259	.966
20	.342	.940
25	.423	.906
30	.500	.866
35	.574	.819
40	.643	.767
45	.707	.707
50	.767	.643
55	.819	.574
60	.866	.500
65	.906	.423
70	.940	.342
75	.966	.259
80	.985	.174
85	.996	.087
90	1.000	.000

## PART NUMBER DERIVATION

Example:



## DIMENSIONS

