

TW850X

FREQUENCY INPUT TWO-WIRE TRANSMITTER

FEATURES

- Provides DC Output Proportional to Frequency Input
- Fully Isolated Input/Output Available
- 30 mV to 500 V Peak Input Sensitivity
- Three Threshold Ranges
- Pullup Resistor
- Unlimited* Choice of Input Ranges
- Low-Drift Copper-Stabilized Input
- NEMA-4X Splashproof and Corrosion Resistant
- 5 Year Warranty

DESCRIPTION

The TW850X provides a DC output current proportional to a frequency input signal with an optional display in a "hockey puck" case. Optional isolation is also available for the transmitter. The transmitter is protected by a gasketed, NEMA-4X glass-filled polyester housing and operates from -40°C to +85°C. The chopper-stabilized input amplifier provides accurate, low-drift operation. All

Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning.

The output ZERO and SPAN controls are accessible through the top of the housing.

Optional conformal coating of the electronic components makes the TW850X extremely reliable and resistant

to the corrosion, moisture and fungus associated with many industrial environments. A built-in pullup resistor is provided to permit use with contact-closure or open-collector inputs.

Terminations are made to screw terminal connectors on the top of the case.

TYPICAL APPLICATIONS

Remote motor, conveyor speed, data acquisition, isolation.

SPECIFICATIONS

INPUT RANGE

select any range from 0 to 5 kHz
min to 0 to 10 Hz

INPUT SENSITIVITY (Peak-to-Peak)

any voltage from 30 mV to 500 V

MAX DC OFFSET

High Range
±250 VDC
Low and Medium Range
±30 VDC

INPUT IMPEDANCE

High and Medium Range
100 kilohms
Low Range
10K ohms
Built-In Pullup Resistor
10K ohms
Open-Circuit Voltage
6.5 VDC

OUTPUT RANGE

4/20 mA (10/50 mA optional)

ISOLATION (Optional)

Output / Input
>500 megohms
Breakdown Voltage
>600 VAC rms

MAX LOAD RESISTANCE

$R_L \text{ max} = (V \text{ supply} - 12)/I \text{ out max}$

RESPONSE TIME (Range Dependant)

≤1.5 sec

ACCURACY

±0.1% of span

LINEARITY

±0.1% of span

OUTPUT RIPPLE (Peak-to-Peak)

0.1% of span

LINEARITY

±0.5% of span

OPERATING TEMPERATURE

Display
14°F to 140°F/-10°C to 60°C
W/O Display
-40°F to 185°F/-40°C to 85°C

TEMPERATURE STABILITY

±0.01% of span/°C max

POWER

12 to 48 VDC

SUPPLY VOLTAGE EFFECT

0.01% of span max, 12 TO 48 VDC

* Within specified range limits.

ORDERING INFORMATION

INPUT

Select Units

Hz KHz

Enter Input

Zero Scale

Full Scale

OUTPUT

Non-Isolated (TW8500)
 Isolated (TW8501)

OPTIONS

Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

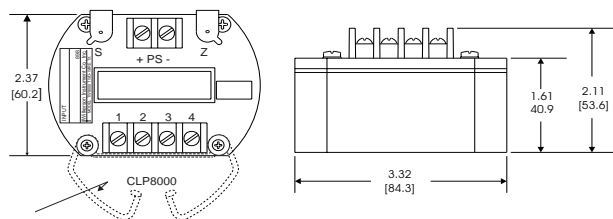
ACCESSORIES

TW850X

DMP8500	Mounting Plate, DIN-Rail & Surface (SC5000 & TW8000)	QTY _____
DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
HKB-HFC	Killark Explosion-Proof Housing, no Window (TW8000)	QTY _____
HKB-HKGL	Killark Explosion-Proof Housing with Window (TW8000)	QTY _____

DIMENSIONS

Inches [mm]



CONNECTIONS

PIN PS + Power Supply +
 PIN PS - Power Supply -

INPUT CONNECTION		
Input Amplitude	Connect Input to Terminals:	Jumper:
Low: 30 mV to 5V pk-pk 10 mV to 1.7 V rms sine	3 and 4	none
Med: 300 mV to 50V pk-pk 100 mV to 17 V rms sine	2 and 4	none
High: 3 V to 500V pk-pk 1 V to 170 V rms sine	2 and 4	3 and 4
Contact Closure or Open Collector	2 (+) and 4 (-)	1 to 2