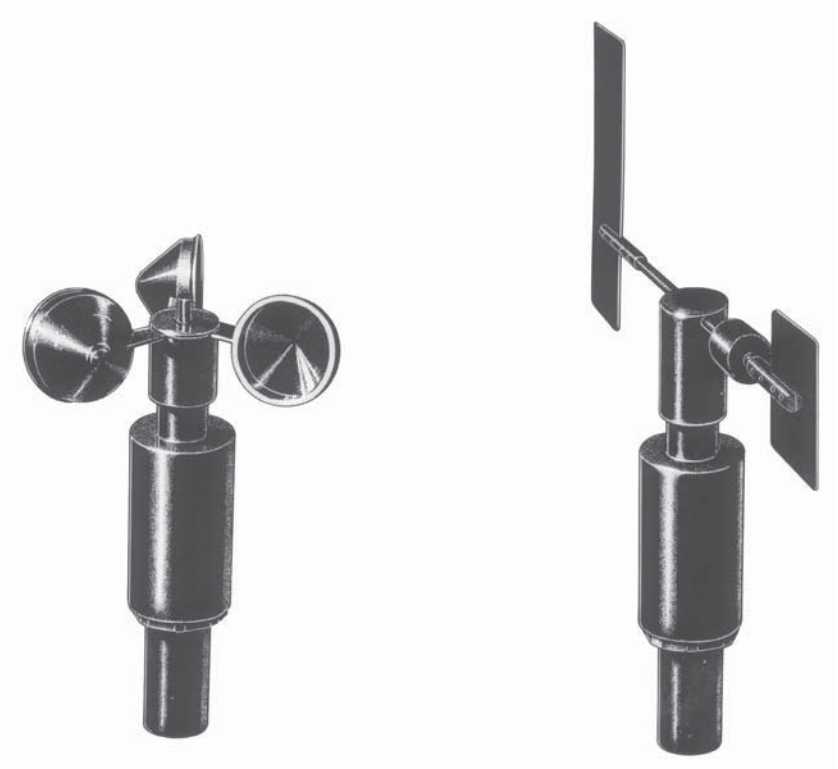
RIMCO, MIDDLETON, SYNCHROTAC.
Precision Weather Monitoring Instruments

SYNCHROTAC 710-3000 SERIES WIND SENSORS 4- 20mA LOOP POWERED



Synchrotac 710-3000 Wind Speed and Direction Sensors with 4 – 20mA ouput

The **Synchrotac 710-3000** series is the latest in the successful range of SYN710 wind instruments and offers an integrated loop powered 4 – 20mA output.

The **Synchrotac 710-3000** Series of wind speed and direction sensors are designed for general-purpose wind measuring applications. They are constructed from corrosion resistant materials and incorporate precision sealed stainless steel bearings for reliability and low starting threshold.

The sensors can be individually mounted directly to a pipe mast with a ½ inch BSP male thread or as a pair on the optional cross arm or mounting sickle.

The **Synchrotac 710-3500** wind speed sensor (anemometer) offers a 4 – 20mA output and is loop powered. The default span is 0 to 100km/hr but other spans may be ordered up to 150km/hr.

The **Synchrotac 710-3900** wind vane uses a precision potentiometer to produce a 4 – 20mA output and it is also loop powered.

All **Synchrotac 710-3000** series sensors are available in optional stainless steel construction.

Synchrotac 710-3000 Series Wind Speed and Direction Sensors

Specifications

Anemometer Model	**SYN710-3500**
Cup Diameter	45mm
Turning Circle Diameter	130mm
Body Diameter and Height	41.5mm, 170mm
Mass of Cup Set	20g
Weight	565g
Mounting	½ inch BSP female thread
Body Material	Brass standard or optional Stainless Steel (SS)
Cup Set Material	Fibreglass reinforced phenolic
Bearings	Two stainless steel roller-balls, sealed with low viscosity lubricant.
Transfer Coefficient	0.0526 km/hr per rpm or 0.9m of wind run per revolution (@50km/hr)
Measurable Wind Speed	Over 50m/sec (180km/hr.)
Transducer	DC generator
Starting Threshold	<0.7m/sec.
Signal Output	4 –20mA = 0 – 100km/hr (other ranges available on request)
Electrical Response Time	200milliSeconds nom.
Power Requirements	Loop powered, minimum voltage 12Vdc, maximum 30Vdc
Connection	3 pin (2 pin optional)
Electrical Load	<500 ohms for 24Vdc loop power.
Operating Temperature Range	-20°C to +60°C

Wind Direction Transmitter	**SYN710-3900**
Vane Length (Overall)	335mm
Turning Circle Diameter	382mm
Body Diameter	41.5mm
Overall Height	252mm
Mass of Vane Assembly	235g
Weight	675g
Mounting	½ inch BSP female thread
Body and Vane Material	Brass/Stainless Steel standard, all stainless Steel (SS) optional.
Bearings	Two stainless steel roller-balls, sealed with low viscosity lubricant.
Transducer	Precision servo-potentiometer, Linearity error <1%
Mechanical/Electrical Travel	Mechanical - 360° (continuous)/Electrical - >340°
Signal Output	4 – 20mA corresponding to 0° to 359° (Dead band = 4mA)
Electrical Response Time	200milliSeconds nom.
Power Requirements	Loop powered, minimum voltage 12Vdc, maximum 30Vdc
Connection	5 pin
Electrical Load	<500 ohms for 24Vdc loop power
Operating Temperature Range	-20°C to +60°C

Other Output Versions

SYN710-1960/1965	Wind Speed, DC voltage output, no power required.
SYN710-1970	Wind Speed, Opto-electronic pulse output, 8 - 26Vdc power required.
SYN710-1980	Wind Speed, Contact closure output, no power required.
SYN710-2900	Wind Direction, Potentiometric, voltage reference required (3 to 12Vdc).

Accessories Available

SYN710-4900	Mounting cross arm (1m long, horizontal, centre mounting)
SYN710-4950	Mounting sickle for vertical alignment of transmitters.
SYN710-5#**	Cable Assemblies (#=5 combined, #=6, Speed only, #=7, Direction only; **=cable length in meters (max 100m) and includes transmitter connector(s).
SYN239	Wind speed (or direction) indicator and alarm unit with 4-20mA input. Refer to the SYN239 data sheet.
SYN72, SYN96 or SYN144	Wind speed or direction indicators based on DIN72, DIN96 and DIN144 formats

For very heavy-duty wind instrumentation applications please refer to our Synchrotac 706 Series data sheet.