

## **REMTECH GENERAL PRICE LIST**

All REMTECH systems come with a powerful embedded PC board with "Red Hat" Linux operating system.

All our Sodars come complete with basic software and are capable of measuring three-dimensional wind speed with up to 100 vertical layers. The average ranges are given herein for the following conditions : 40 dBA ambient noise, 15° C air temperature and 70% humidity.

All minimum measurement heights are given for use in an open field.

REMTECH Sodar systems are composed of a Phased Array (PA) antenna and of an electronic case. The electronic/computer case is low power (9.6 W for PA-XS and PA0, 150 W for PA5) and fits underneath the antenna.

PA-XS and PA0 Sodars can be powered either with AC power or DC power (from 10V DC to 36V DC). PA5 needs AC power.

Our Sodars are designed for up to 9 frequencies coding on each of the two symmetrical tilted beams during one « beep ».

For a formal quote please consult REMTECH or one of its authorized representatives.

ITEM	DESCRIPTION	USD	EUROS
Item 1	<p style="text-align: center;"><u>PA-XS</u></p> <p>The antenna is made of 64 piezo-electric transducers, operating at 6.70 KHz (central frequency). Active antenna size is 24 cm x 24 cm. The minimum measurement height is 10 meters. The average range is 400 meters. The additional acoustic enclosure (especially useful for high surface winds applications) is included</p>	41,350.00	34,460.00
Item 2	<p style="text-align: center;"><u>PA0</u></p> <p>The antenna is made of 64 piezo-electric transducers, operating at 3.85 KHz (central frequency). Active antenna size is 40 cm x 40 cm. The minimum measurement height is 15 meters. The average range is 700 meters. The additional acoustic enclosure (especially useful for high surface winds applications) is included</p>	62,650.00	52,210.00
Item 4	<p style="text-align: center;"><u>PA5</u></p> <p>This is a high power PA0. Unlike the PA0, the transducers are compression drivers (in place of piezo-electric transducers) operated at 1.0 KHz and the antenna dimensions are increased accordingly. Active antenna size is 170 cm x 170 cm. The minimum measurement height is 100 meters. The average range is 3,000 meters.</p>	164,940.00	137,450.00
Item 5	<p style="text-align: center;"><u>Radio-Acoustic Sounding Systems (RASS)</u></p> <p>For use with a PA0, or a PA5 for air temperature measurement. It consists of two six foot diameter parabolic dishes with feeders and dedicated outdoor HF transceivers.</p>	100,550.00	83,790.00

Item 7	<b>MISCELLANEOUS HARDWARE OPTIONS</b>		
Item 7.1:	Communication links		
Item 7.1.1	GPRS modem with software	2,160.00	1,800.00
Item 7.1.2	Satellite receiver / transmitter – INMARSAT worldwide network	7,520.00	6,270.00
Item 7.3	Trailers for PA5 Sodars and PA5/RASS combination		
Item 7.3.1	For PA5	4,820.00	4,020.00
Item 7.3.2	For PA5/RASS	17,120.00	14,270.00
Item 7.5	Solar power system : 4 solar panels each 0.9m <sup>2</sup> with ground mounts, and one waterproof enclosure housing a charge controller and two 110 Ah batteries. For PA-XS and PA0 Sodars	4,030.00	3,360.00
Item 7.6	Antenna heating		
Item 7.6.1	Antenna heating for PA-XS and PA0 (requires 110 V/220 V AC or 24 V DC power supply)	5,200.00	4,330.00
Item 7.6.2	Antenna heating for PA5 (requires 110 V/220 V AC)	8,530.00	7,110.00
Item 9	“POWMOD”: power modulation option. For a chosen altitude range the Sodar automatically minimizes its output power	5,290.00	4,410.00

Item 10	<b>COLOR DISPLAY SOFTWARES</b>		
Item 10.1	Vectorial presentation of vertical profile of horizontal wind	2,600.00	2,170.00
Item 10.2	Facsimile presentation of all data	2,600.00	2,170.00
Item 10.3	Multi-level time series presentation of all data	2,600.00	2,170.00
Item 10.4	Vertical profile presentation	2,600.00	2,170.00
Item 10.5	Wind roses calculation	2,600.00	2,170.00
Item 10.6	Range statistics calculation	2,600.00	2,170.00
<b>SODAR MEASURING CAPABILITY SOFTWARE ENHANCEMENTS</b>			
Item 11	6 dB improvement of signal processing. This is equivalent to 4-fold the power output. It comes as standard with the PA5	8,320.00	6,930.00
Item 12	Extended frequency coding. It gives a signal processing improvement of up to 10 dB (equivalent to 10-fold the output power). It is standard with the PA5. Requires item 11.	13,860.00	11,550.00
<b>REAL TIME DATA PROCESSING SOFTWARE OPTIONS</b>			
Item 15	Sigma w computation	3,950.00	3,290.00
Item 16	Sigma u and Sigma v computation Item 16 gives a USD 1,940.00 / EUROS 1,620.00 credit on item 17	3,950.00	3,290.00

Item 17	Sigma theta computation (requires item 15)	4,980.00	4,150.00
Item 18	Automatic temperature inversion detection (requires items 15 and 17)	5,140.00	4,280.00
Item 19	Automatic mixing height/depth calculation (requires items 15, 17)	5,050.00	4,210.00
Item 20	Automatic stability classification (requires items 15, 17 and 18)	5,980.00	4,980.00
Item 21	Reynolds stress calculation (requires items 15, 16, 17 and 18)	9,020.00	7,520.00
Item 22	Turbulent mechanical dissipation rate coefficient calculation. This parameter is very useful in order to characterize the fatigue effects on the wind turbine blades and to forecast the vortex billows degradation on airports.	5,580.00	4,650.00
Item 23	Vertical turbulent eddy coefficient calculation (requires items 15, 21 and 22)	9,170.00	7,640.00
Item 24	Lapse rate estimation (requires items 15, 17 and 18). This option is available only with REMTECH Doppler Sodars. It is extremely useful for complex terrain modeling. It gives results, which are less accurate than using a R.A.S.S. and over a shorter range (especially on noisy sites). Nevertheless, it can be considered as a cost efficient solution considering the difference in price between item 24 and R.A.S.S.	18,230.00	15,190.00
Item 25	Software for Wind Shear Calculation according to ICAO Circular 186-AN/122. The wind shear is calculated as the wind vector change in Knots per 100 feet. It is reported in four classes (light, moderate, strong, severe) for each altitude layer.	6,460.00	5,380.00

**INSTALLATION/TRAINING:**

The Phased Array systems are so easy to install and use that the user can perform the installation without the assistance of a REMTECH engineer on site. As an alternative, we suggest that the end-users come to REMTECH for a maximum of one or two days to acquire training in the use of the system before it is shipped. This training is free of charge and again, this service is not really needed in most cases.

However, installation and training can take place on a customer's site, if required, at a rate of USD 230.00 / EUROS 190.00 per hour, plus travel and accommodation expenses, which would be invoiced at real cost plus 10%.

**DISCOUNT POLICY:**

If you purchase 2 to 4 systems, a 5 % discount will be applied to the total configuration price of each system. If the total cost of optional software purchased per system is over USD 16,090.00 / EUROS 13,410.00, an additional 10 % discount on software alone will apply, with a 20 % discount available on software purchases of over USD 32,160.00 / EUROS 26,800.00 and 30 % if over USD 64,310.00/ EUROS 53,590.00.

In addition special prices are available for OEM, consultants and Universities. Please consult REMTECH.

**LEASE/PURCHASE CONDITIONS:**

Leasing is available at 10 % of the total configuration price per month, payable at the beginning of each month (this excludes packing, transport, installation, etc. expenses). If the system is purchased at the end of the lease, and then 90 % of the amount already paid will be credited to the total purchase price.

Leasing is restricted to only certain countries. Please consult REMTECH.

**DELIVERY TIME:**

1 to 2 months from the date of receipt of the order for PA-XS and PA0,  
2 to 3 months from the date of receipt of the order for PA5 and RASS.

**PACKING:**

Packing (using high quality wooden cases) is quoted as follows (for standard configurations excluding items 7.1 to 7.5):

PA-XS with its additional acoustic enclosure	USD 1,360.00	€ 1,130.00
PA0 with its additional acoustic enclosure	USD 1,870.00	€ 1,560.00
PA5	USD 2,340.00	€ 1,950.00
RASS	USD 2,520.00	€ 2,100.00

**LIMIT OF VALIDITY OF PRICES:**

This price list is effective on September 25<sup>th</sup>, 2017. REMTECH may change prices after this date without notice to all list holders.

This price list expires upon issuance of a new price list.