

# Solar Powered Sample Conditioning System

U.S. PAT. NO.: 9,459,85 B2

*(SPSCS)*

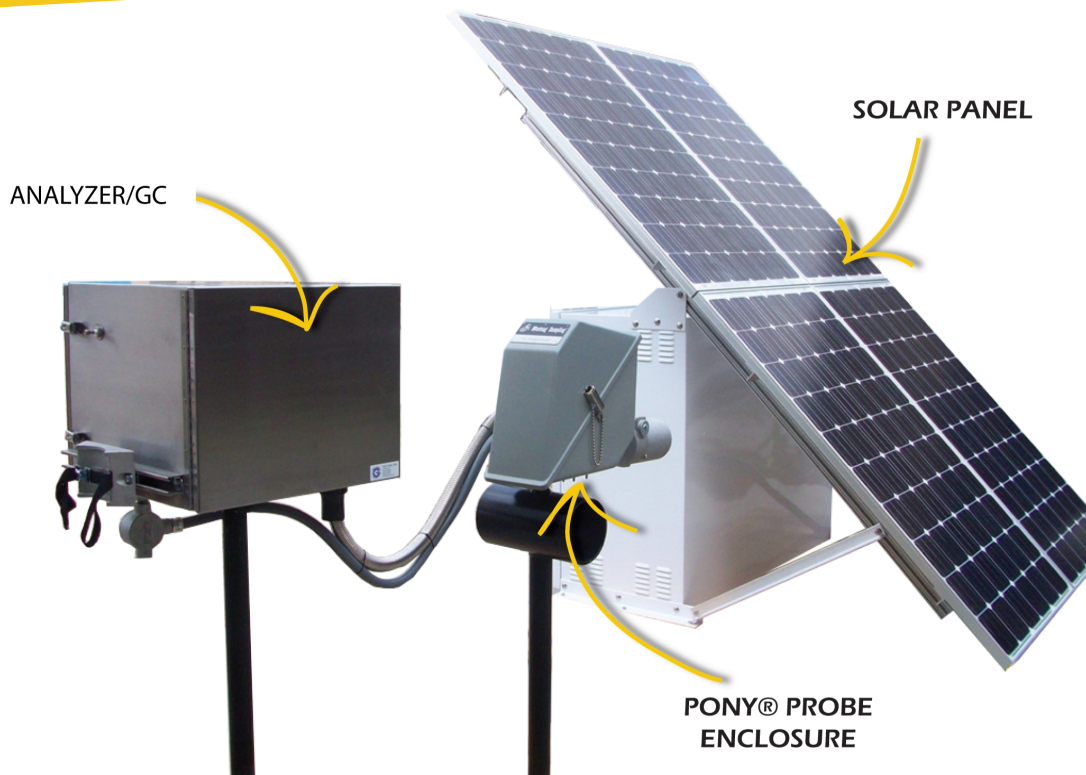
Analytically Accurate® Technology



**Mustang Sampling®**

*Products & Solutions for  
Liquid & Gas Industries*

# Analytically Accurate® Technology



The Pony® Solar Heated Probe Enclosure is patent pending system designed to provide and maintain heat for the sample probe directly at the sample point with a remote mount Mustang® Sample Conditioning System (MSCS).

The Pony® probe enclosure is an integral part of the MSCS, developed to install between 6" center-to-center thread-o-lets.

Consisting of a molded, insulated, and weatherproof clam shell design, the Pony® probe enclosure provides easy maintenance with steel latches and chain to prevent loss of lid. Construction selections include hot press glass fiber reinforced polyester or stainless steel.

- ▶ Patented technology utilizing existing power supplied by heat trace sample tubing
- ▶ Low power consumption
- ▶ Integral Sample Conditioning
- ▶ Direct mount on pipeline fitting between 6" center-to-center TOL's
- ▶ Fits over existing brand of probes with correct adaptor nut
- ▶ Rated for Class 1, Div 1 Locations

# Pony® Solar Heated Probe Enclosure

## STANDARD UNIT SPECIFICATIONS & COMPONENTS

AC Power	120 VAC/240 VAC/24 VDC
Heating Components	80 watt self-limiting block heater
Maintains Sample Gas	98°F (37°C)
Cabinet Construction	Hotpressed Glass Fiber Reinforced Polyester

Heated insulated enclosure  
 Heat tracing tubing shrink boot  
 Heat trace tubing shrink sleeve  
 Class 1, Div 1 Termination enclosure w/ termination kit  
 Bolts, nuts, & washers to mount to adapter nut  
 Solar Panel  
 Analyzer or GC

Minimum 5 days autonomy  
 (runtime with no sun) (system shown tested at 10 days) \*

Power for GC, Mustang® Sample Conditioning System, and Pony® Probe Enclosure with heated regulator

Power for cellular modem

Power for Charge controller and Load controller

Some additional features to this system include:

- 24 VDC system
- 1060 watts total solar panel power\*
- 2080 watts total battery power\*

Communication capability to the GC, with optional Load controller & Watlow heater controller communication

Solar panels shade the enclosure, housing the batteries and electronics

Galvanized skid mounted battery enclosure with lifting points

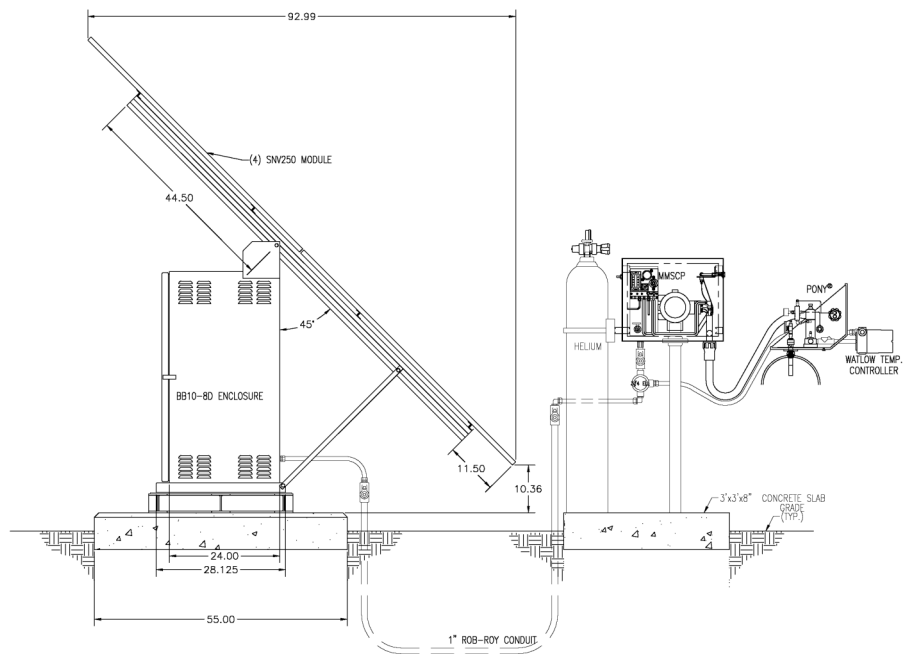
Flexible vacuum jacketed tubing from sample point to analyzer

MMSCP for additional sample control / conditioning

Stainless steel pole mounted enclosure for the GC

400 watt inverter for technician remote computer power

Solar panel and battery enclosure shown for general purpose area classification. C1 D2 design available. The Pony® Probe Enclosure and GC components are C1 D1.



\*Parameters will vary according to design requirements

## OPTIONAL PROBE KITS



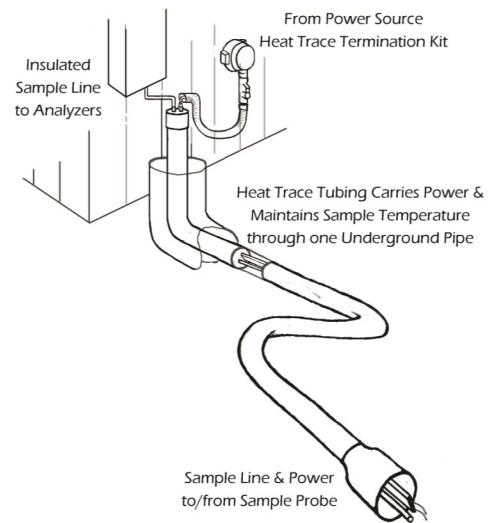
- ▶ Certiprobe® Mounting brackets for any manufacturer's probe (sold separately)
- ▶ GPR Probe Regulator
- ▶ GPiL Probe
- ▶ GPRiL Probe Regulator
- ▶ 702 Probe
- ▶ 750 Probe
- ▶ Welker Probe

## PATENTED POWER CONNECTION



Patented power connection design utilizes existing heat trace tubing powered without additional power or natural gas for proper operation

Pony® Probe Enclosure patented design provides and maintains heat directly at the sample probe



### Maximum Heat Trace Tubing Lengths Per Circuit Breaker Sizes (in feet)

	Ambient Temperature Start-Up		120 V				240 V			
			15 A	20 A	30 A	40 A	15 A	20 A	30 A	40 A
<b>5 Watts</b>	50°F	(10°C)	230	270	270	270	460	540	540	540
	0°F	(-18°C)	140	190	270	270	285	380	540	540
	-20°F	(-29°C)	125	165	250	270	250	330	500	540
	-40°F	(-40°C)	110	145	220	270	220	295	440	540
<b>8 Watts</b>	50°F	(10°C)	150	200	210	210	300	400	420	420
	0°F	(-18°C)	100	130	200	210	200	265	400	420
	-20°F	(-29°C)	85	115	175	210	175	235	350	420
	-40°F	(-40°C)	80	105	155	210	155	210	315	420



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