

# Well Probe

## Mechanically Activated Device for Dry Run Protection in Applications with LORENTZ Solar Pump Systems

The switch can be used to detect the water level within a well. When the water level in the well dropped below the level of the well probe, the LORENTZ Controller will stop the pump and indicates Source Low LED.

### ORDER INFORMATION

- **Item no.:** 19-000000    **product name:** Well probe sensor

### FEATURES

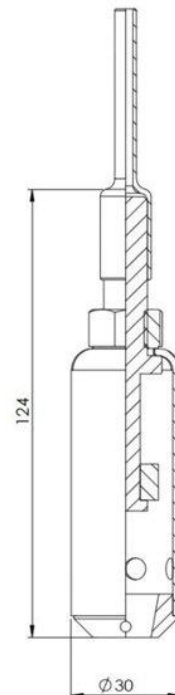
- Reliable dry run protection
- Simple to install
- Trouble free operation
- Corrosion-free
- Splicing kit included

### TECHNICAL DATA

- Max. operating temperature 55 °C
- Enclosure class: IP68  
Submersion depth: max 50 m
- Cable length: 1.5m
- Wire size: 2x 0.75mm<sup>2</sup> or AWG 19, waterproofed
- Mounted in vertical position
- Meets the requirements for CE

### DIMENSION/WEIGHT

- Packaging dimensions: 260 x 170 x 40 mm  
10.3 x 6.7 x 1.6 in
- Total weight: 0.1 kg / 0.2 lbs



# Float Switch

## Mechanically Activated Device for Water Level Detection in Applications with LORENTZ Solar Pump Systems

The switch can be used to detect the water level within a tank. When the water level in the tank reaches the maximum, the LORENTZ Controller will stop the pump and indicates Tank Full LED.

### ORDER INFORMATION

- **Item no.:** 19-000030    **product name:** Float Switch

### FEATURES

- **N.O.** (normally open) and **N.C.** (normally closed) function
- Reliable water level detection
- Simple to install
- Trouble free operation
- Not sensitive to rotation
- Corrosion-free

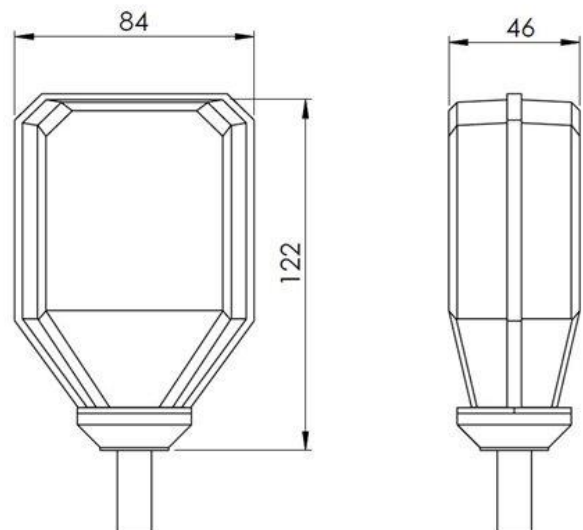


### TECHNICAL DATA

- Operating temperature: -10°C to 55°C
- Storage temperature: : -10°C to 55°C
- Enclosure class: IP68
- Cable length: 3m, waterproof
- Wire size: 3x 1.0mm<sup>2</sup> or AWG 18
- Meets the requirements for CE

### DIMENSION/WEIGHT

- Packaging dimensions: 230 x 160 x 55 mm  
9.1 x 6.3 x 2.2 in
- Total weight: 0.8 kg / 1.8 lbs



# Pressure Switch

## Device for Water Pressure Detection in Applications with LORENTZ Solar Pump Systems

The switch can be used to detect the water level within a tank. When the water level in the tank reaches the maximum, the pressure will increase and the LORENTZ Controller will stop the pump and indicates Tank Full LED.

### ORDER INFORMATION

- **Item no.:** 19-000310    **product name:** Pressure Switch 1-5bar

### FEATURES

- Reliable water pressure detection
- Simple to install
- Trouble free operation
- Corrosion-free

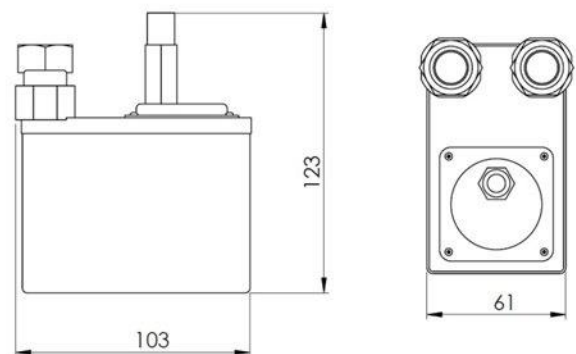


### TECHNICAL DATA

- Pressure range between 1 and 5 bar
- 2x cable gland  $\varnothing$  5-9mm
- G 1/4" pipe thread
- Meets the requirements for CE

### DIMENSION/WEIGHT

- Packaging dimensions: 130 x 105 x 65 mm  
5.1 x 4.2 x 2.6 in
- Total weight: 0.5 kg / 1 lbs



# SunSwitch

## Automatic Solar Level Switching Device

The SunSwitch can be used for any application where you need to switch depending on the solar intensity. It is an autonomous working unit that supplies itself with power from the PV-module on its rear side.

### ORDER INFORMATION

- **Item no.:** 19-000050    **product name:** SUN SWITCH Light-Sensor

### FEATURES

- Trouble free operation
- Pump will only run when minimum flow rates or pressure levels can be achieved which are required by certain applications
- Reduced wear on the pump and motor since the pump only starts when it will continue to run

### TECHNICAL DATA

- Contact rating:
  - Max. voltage 250 VAC / 220 VDC
  - Max. current 2A
  - Max. power 60 W / 62.5 VA
- Enclosure class: IP54
- Cable length: 4 m
- Wire size: 3x 1.0mm<sup>2</sup> or AWG 18, waterproofed
- Mounted close to the solar array
- Manual with further informations is available in PartnerNet
- Meets the requirements for CE

### DIMENSION/WEIGHT

- Packaging dimensions: 230 x 115 x 90 mm  
9.1 x 4.5 x 3.5 in
- Total weight: 1.2 kg / 0.6 lbs



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# Surge Protector

Device to Protect LORENTZ Pump Accessories from Voltage Spikes

## ORDER INFORMATION

- **Item no.:** 19-000280    **product name:** Surge Protector

## FEATURES

- Reliable surge protection for all LORENTZ pump accessories
- Can be installed inside the PS Controller

## TECHNICAL DATA

- Max. voltage: 14 VDC
- Max current 8/20 $\mu$ s: 500 A
- Enclosure class: IP65
- Ambient temperature: max. 50°C
- Wire size: 2x 1.5mm<sup>2</sup> or AWG 16
- Meets the requirements for CE



## DIMENSION/WEIGHT

- Packing dimensions:    70 x 45 x 20 mm  
   2.8 x 1.8 x 0.8 in
- Total weight                    0.1 kg / 0.2 lbs

# PV Disconnect 440-40-1

Box with DC Disconnect Switch and optional lightning surge protection

## ORDER INFORMATION

- **Item no.:** 19-000137    **product name:** PV Disconnect 440-40-1
- **Item no.:** 19-002120    **product name:** MNSPD-115
- **Item no.:** 19-002130    **product name:** MNSPD-300
- **Item no.:** 19-002140    **product name:** MNSPD-600

Lightning surge protectors must be ordered separately

## FEATURES

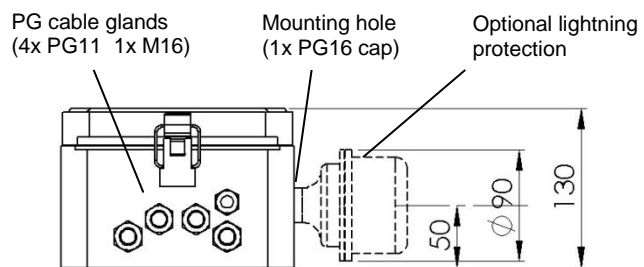
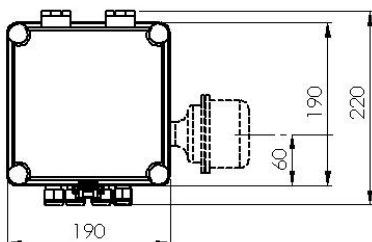
- Designed for PS150 – PS4000
- For professional installation of pumping systems

## TECHNICAL DATA

- DC rated disconnect switch enclosed
- Enclosure class IP 54
- Meets the requirements for CE

PV Disconnect 440-20-1	
Max. voltage	440 V DC
Max. current	40 A
String cable size	4 - 10 mm <sup>2</sup>
Output cable size	4 - 10 mm <sup>2</sup>

## DIMENSION/WEIGHT [mm]



Net. Weight: 1,4kg (+0,35kg)



## Optional lightning surge protector

- Connects through an existing mounting hole in the PV connect housing
- Proper grounding of the device is mandatory to achieve protection

Controller	MidNite surge protector
PS150 – PS200	MNSPD115
PS600 – PS1800	MNSPD300
PS4000	MNSPD600



# PV Disconnect 440-40-6

Connection box with DC Disconnect Switch and optional lightning surge protection

## ORDER INFORMATION

- **Item no.:** 19-000136    **product name:** PV Disconnect 440-40-6
- **Item no.:** 19-002120    **product name:** MNSPD-115
- **Item no.:** 19-002130    **product name:** MNSPD-300
- **Item no.:** 19-002140    **product name:** MNSPD-600

Lightning surge protectors must be ordered separately

## FEATURES

- Designed for PS150 – PS4000
- For professional installation of pumping systems

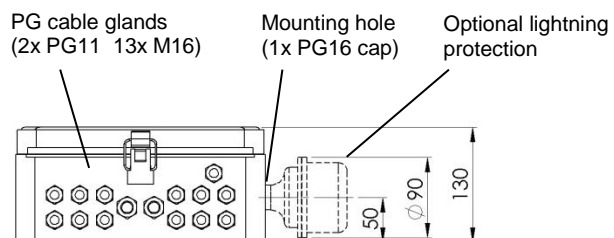
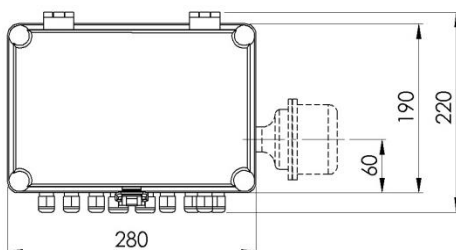
## TECHNICAL DATA

- Wiring up to 6 PV-strings in parallel
- DC rated disconnect switch enclosed
- Enclosure class IP 54
- Meets the requirements for CE

### PV Disconnect 440-40-6

Max. voltage	440 V DC
Max. current per string	10 A
Max. total current	40 A
Max. no. of strings	6
String cable size	2,5 - 4mm <sup>2</sup>
Output cable size	4 - 10mm <sup>2</sup>

## DIMENSION/WEIGHT [mm]



Net. Weight: 2,15kg (+0,35kg)



### Optional lightning surge protector

- Connects through an existing mounting hole in the PV connect housing
- Proper grounding of the device is mandatory to achieve protection

Controller	MidNite surge protector
PS150 – PS200	MNSPD115
PS600 – PS1800	MNSPD300
PS4000	MNSPD600

# PP150AC PowerPack

AC/DC Converter to Supply PS2-150 Pump Systems with Backup Power from a Generator or Mains Supply

## ORDER INFORMATION

- Item no.: 19-004240 / 19-004260      product name: Power Pack 150, UL

## TECHNICAL DATA

Product name	Power Pack 150	
Item no.	19-004260	19-004240
Pump System	PS2-150	
<b>AC input</b>		
Nominal voltage	120 VAC	240 VAC
Max. current	10 A	6 A
Frequency	50-60 Hz	50-60 Hz
<b>DC output</b>		
Max. voltage	24 VDC	24 VDC
Max. current	19.0 A	19.0 A

- AC input: 120/240 V ( $\pm 15\%$ ) as factory setting, 50 to 60 Hz
- DC output: max. 24 V DC (no load), 450 W
- Enclosure: steel, gasket-sealed, indoor-use, hinged front cover with key-lock
- Must be protected from direct mid-day sun
- Enclosure class: IP22
- Ambient temperature: max. 45 °C / 113°F
- PV cable length 2 m, with Y MC4 plugs to connect in parallel to PV-generator
- Main supply AC input cable length 1.8 m, pre-connected grid main supply plugs
- Manual with further information is available on partnerNET
- Meets the requirements for CE



## DIMENSION/WEIGHT

- Packaging dimensions: 390 x 270 x 160 mm / 15.4 x 10.6 x 6.3 in
- Total weight: 6.4 kg / 14 lbs

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# PS BOOST Inline Filter

## Inline Filter for use with PS Boost Pumps

PS BOOST Pump Systems are designed for clean water conditions. A PS BOOST Inline Filter must be installed in the suction pipeline to protect the pump from sand, clay or other solids.

## ORDER INFORMATION

- **Item no.:** 19-000200    **product name:** Inline Filter 10" PS150 BOOST
- **Item no.:** 19-000210    **product name:** Filter cartridge 10" PS150 BOOST

## FEATURES

- Simple to install with included wall holder kit
- Clear bowl for easy maintenance
- Additional spare filter cartridges can be ordered

## TECHNICAL DATA

- Inlet: female NPT 1/2"
- Outlet: female NPT 1/2"
- Max. filter cartridge size: 9 7/8 in
- 20-micron spun polypropylene filter cartridges
- Max. water temperature: 50°C (120°F)
- Max. working pressure: 6 bar
- Meets the requirements for CE

## DIMENSION/WEIGHT

- Packaging dimensions: 450 x 250 x 250 mm  
17.7 x 9.8 x 9.8 in
- Total weight                    2.0 kg / 4.4 lbs



# PS BOOST Installation Kit

## Control unit for use in pressurizing applications

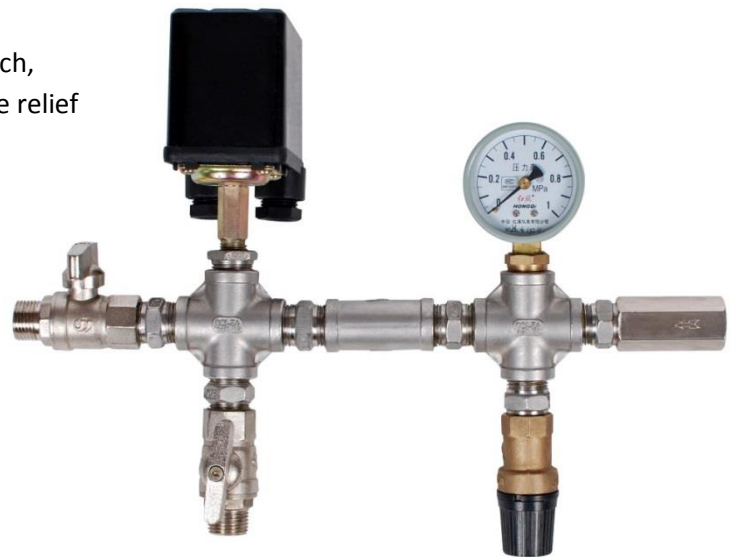
The PS BOOST Installation Kit can be used for any application where a pressure tank is required. If the pressure increases to the maximum, the LORENTZ PS Controller will stop the pump and indicates Tank Full LED.

## ORDER INFORMATION

- **Item no.:** 19-000190    **product name:** PS BOOST Inst. Kit

## FEATURES

- Unit consist of the LORENTZ Pressure Switch, a check valve, a pressure gauge, a pressure relief valve, two ball valves and two short pipes
- Reliable water pressure detection
- Trouble free operation
- Corrosion-free

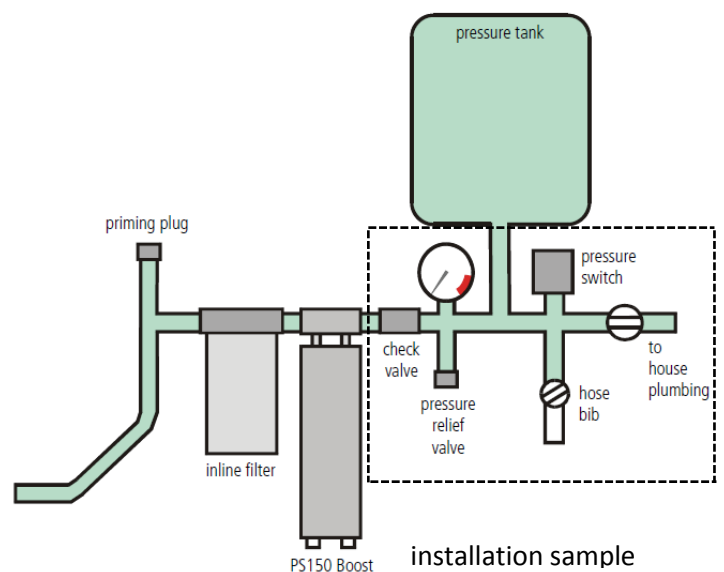


## TECHNICAL DATA

- Min. cut-in: 1bar
  - Max. cut-out: 5bar
  - Pressure relief valve: 5.3bar
  - Enclosure class: IP44
  - Inlet: female G1/2"
  - Outlet: male G1/2"
- Meets the requirements for CE

## DIMENSION/WEIGHT

- Packing dimensions: 600 x 320 x 170 mm  
23.6 x 12.6 x 6.7 in
- Total weight 5.0 kg / 11.0 lbs



# PM Accessory bracket

Kit for mounting LORENTZ PS Controller / PV-Disconnect to the Pole Mount PM-1-X

## USE / PURPOSE

The PM Accessory bracket is designed for use with the LORENTZ POLE MOUNT-1-X.

The Set allows an easy and flexible mounting of LORENTZ PS Controllers and PV-Disconnect on the Pole of the LORENTZ PM-1-X.



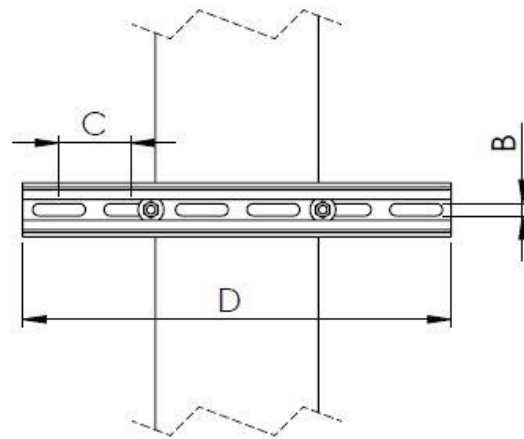
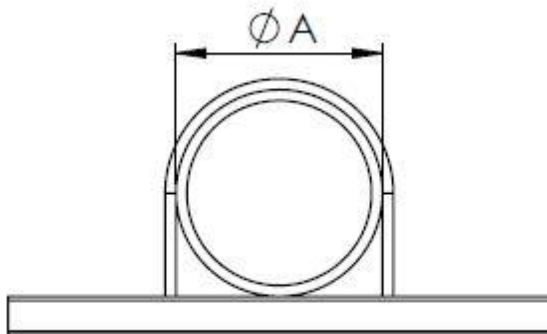
## ORDER INFORMATION

Part	Item No.	PM-1-1	PM-1-2	PM-1-3	PM-1-4	PM-1-5	PM-1-6
PM Accessory bracket 2.5-1	19-004220	x	x				
PM Accessory bracket 4-1	19-004210			x	x	x	x

## FEATURES

- Simple and cost effective mounting possibility for LORENTZ Controller and PV-Disconnect
- Designed for LORENTZ Pole Mount 1-X

## TECHNICAL DATA



	A	B	C	D	Weight	Item no.
PM-1- 1/2	70 -73 mm 2.5 " SCH40	8.5 x 37 mm 0.33 x 1.4 "	50 mm 2 "	300 mm 11.8 "	0.35 kg 0.77 lbs.	19-004220
PM-1- 3/4/5/6	114.3 mm 4 " SCH40				0.4 kg 0.88 lbs.	

## Packing dimensions

305x170x25 mm  
12x7x1 inch

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# Sun Sensor

## Irradiation measurement module and software

The LORENTZ Sun Sensor module and software allow the PS2 controller to accurately estimate irradiation levels and control the pump based on this.

The Sun Sensor function can be configured to offer the pump mechanical protection from repeated stop starts. The Sun Sensor function can also be configured to switch external devices via the PS2 output terminals.

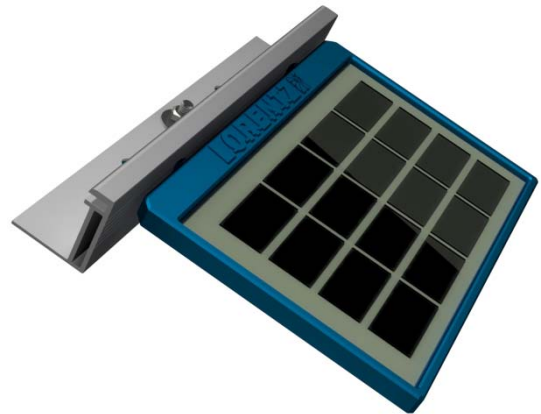
Each module is tested and specially calibrated for use with the PS2 system. The Module also includes a software license to use the features which is accessed via the item serial number.

This Sun Sensor module is included with any PS2-1800 or PS2-4000 controller.

For PS controllers (non PS2) refer to the SunSwitch Datasheet.

## ORDER INFORMATION

- **Item no.:** 19-005030
- **Product name:** Sun Sensor module



## TECHNICAL DATA

- Open circuit voltage  $V_{oc} = 10.2 \text{ V}$
- Short circuit current  $I_{sc} = 0.19 \text{ A}$
- Wire size: 3x 1.0mm<sup>2</sup> or AWG 18, waterproofed
- Mount close to the solar array
- PS2 manual with further information is available in PartnerNet
- Meets the requirements for CE

## DIMENSION/WEIGHT

- Packaging dimensions: 180 x 205 x 60 mm  
7.08 x 8.07 x 2.36 in
- Total weight: 0.6 kg / 1.33 lbs