



PRODUCT CATALOG

**Wireless
Temperature
Monitoring System**



Company Profile

Origin

PQSense was founded in 2016, our vision is to become the world's best switchgear temperature monitoring solution provider.

We reached the plug-and-play installation goal on current product portfolio, we will continue to explore and pioneer, bringing our technology into new applications of electrical equipment temperature monitoring.

Organization and Facility

PQSense is home based in Taiwan, with offices and manufacturing facilities in Taiwan and China.

Unique Strength of PQSense

We started this business with a role of system integrator , where we accumulated vast amount of on-site experience, giving us first-hand knowledge of what customers need and identified problems to be solved.



Who We Are & What We Do






PQSense's founder and key members have had over 30 years of experience in electrical system, we started deploying switchgear temperature monitoring system as early as 2010, using various technology available at the time. After installation a few thousand switchgears, we concluded that none of the existing solution is good enough.

Timeline

- 2016** Developed RFID sensing based temperature monitoring system
- 2017** Develop RMU cable joint temperature sensors, Switchgear plum contact sensors were also developed.
- 2018** Deployed into more than 3000 switchgears in Taiwan and China.
- 2019** Released 2nd generation products, plug-and-play installation achieved.



Sensors


	Product No. / Product Name	Dimensions (mm)	Mount Type	Read Distance*	Measure Range	Applicable Occasions
	PQS-SR-01 Bolt Mount Sensor	69(L) x 27(W) x 23 (H)	Bolt or Cable Tie	2-3 meters	-20°C ~ +125°C	Busbar
	PQS-SR-02 Plum Contact Sensor	14(L) x 9(W) x 4 (H)	Complementing Fixture	~1 meters	-20°C ~ +125°C	Plum contact
	PQS-SR-03 Male Plug Sensor	14(L) x 9(W) x 4 (H)	Silicone Rubber Strap	~1 meters	-20°C ~ +125°C	Male contact
	PQ-SR-04 Flat-man Sensor	47(L) x 25(W) x 2(H)	Bolt	2-3 meters	-20°C ~ +125°C	Metal stud
	PQS-SR-05 25 x 25 mm Sensor	25(L) x 25(W) x 4(H)	Cable tie	1-2 meters	-20°C ~ +125°C	Busbar

***Note: Read Distance may vary with different antenna and circumstances.**

***Note: Accuracy of all sensors are +/- 2°C.**



Sensors




	Product No. / Product Name	Dimensions (mm)	Mount Type	Read Distance*	Measure Range	Applicable Occasions
	PQS-SR-11	Sensor: 10 x 5 x 3	Screw-In	0.8 meters	-20°C ~	RMU cable head
	Nut Sensor	Nut: 20 x 23 x 13 (M12)			+125°C	

***Note: Read Distance may vary with different antenna and circumstances.**

***Note: Accuracy of all sensors are +/- 2°C.**




Fixed Readers

	Product No.	Dimensions (mm)	Antenna Ports	Comm. Interface	Installation Type	Humidity Sensor Option
	PQS-RD-01	115(L) x 80(W) x 45(H)	4 ports	1 Set RS485/ Modbus RTU	Rack Mount	No
	PQS-RD-11/4	190(L) x 100 (W) x 41(H)	4 ports	2 Sets RS485/ Modbus RTU	Screw Mount Rack Mount (Optional)	Yes
	PQS-RD-11/8	190(L) x 100 (W) x 41(H)	8 ports	2 Sets RS485/ Modbus RTU	Screw Mount Rack Mount (Optional)	Yes

***Note: Operation Temperature are all -20°C to 70°C**



***Note: Power Supply are all AC/DC 85-265V Wide Range Input**

Handheld Reader

	Product No.	Dimensions (mm)	Battery Cap.	OS	Comm. Interface	Read Distance
	PQS-HR-01	177 (L) x 14.8 (W) x 80.2(H)	6700mAh Li-On Battery	Android	Wifi, 3G/4G/ Bluetooth, USB Type-C	3-5 Meters, depends on sensor type





Antennas

	Product No.	Dimensions (mm)	Connector	Installation Type	Polarization	Gain
	PQS-AN-11	142(L) x 106 (W) x 15(H)	SMA male	Magnet Mount or Screw Mount	Circular	3 dbi
	PQS-AN-25W25	260(L) x 260 (W) x 40(H)	SMA male	Magnet Mount or Screw Mount	Circular	9 dbi




***Note: Operation Temperature are all -20°C to 85°C**

Meter

	Product No.	Dimensions (mm)	Power Supply	Installation Type	Comm. Interface	Operation Temperature
	PQS-MT-01	135 (L) x 96 (W) x 48(H)	AC/DC 85-265V Wide Range Input	Panel Mount	2 sets RS485/Modbus RTU (1 Master, 1 Slave)	-20 to 70°C
	PQS-MT-02 (Touch Screen Display)	160(L) x 107 (W) x 21.4(H)	DC 6-40V, <5 Watt	Panel Mount	1 set of RS485/Modbus RTU (1 Master)	-10 to 70°C



HMI Display

	Product No.	Dimensions (mm)	Display Size	Brightness	Installation Method	Backlight Life
	PQS-HM-10	27.9(L) x 80(W) x 45(H)	10 in.	350 cd/m ²	Panel Mount	20,000 Hrs
	PQS-HM-12	190(L) x 100 (W) x 41(H)	12 in.	450 cd/m ²	Panel Mount	50,000 Hrs
	PQS-HM-15	190(L) x 100 (W) x 41(H)	15 in.	500 cd/m ²	Panel Mount	50,000 Hrs

Operation Temperature: -20°C to 60°C

Power Supply: 19.2~28.8VDC , 8 Watt

Communication Protocol: Modbus TCP Forwarding

COM: 3x RS485, 1x 10/100Mbit Ethernet



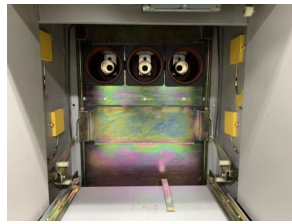
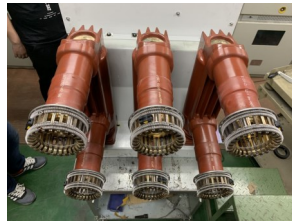
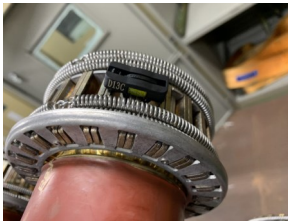
Demo Box



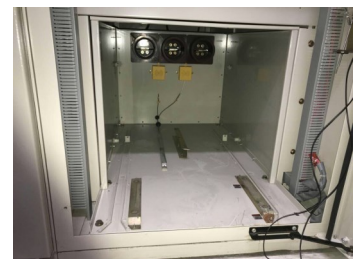
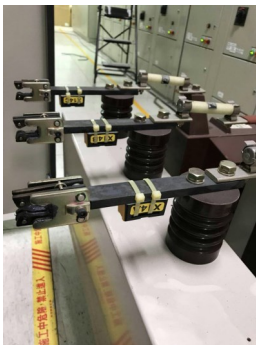
Product No.	Dimensions (mm)	Functions	Mounted Equipment	Compatible Sensors
PQS-DB-11	400(W) x 320(D) x 225H) (Closed)	<ul style="list-style-type: none"> 2 sets of copper bar with heat element 	PQS-RD-11	PQS-SR-01
	400(W) x 480(D) x 450H) (Open)	<ul style="list-style-type: none"> Functional Meter with Alarm and Temperatures 	PQS-MT-02 PQS-AN-11	PQS-SR-02 PQS-SR-03 PQS-SR-04 PQS-SR-05



Switchgear Application Case # 1

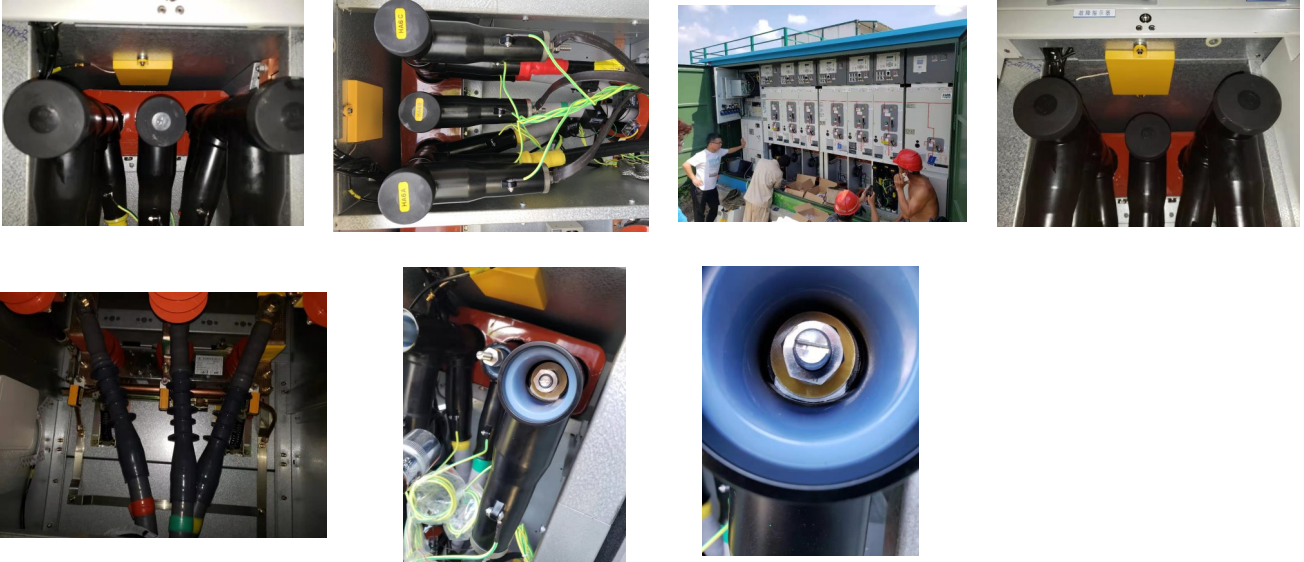


Switchgear Application Case # 2

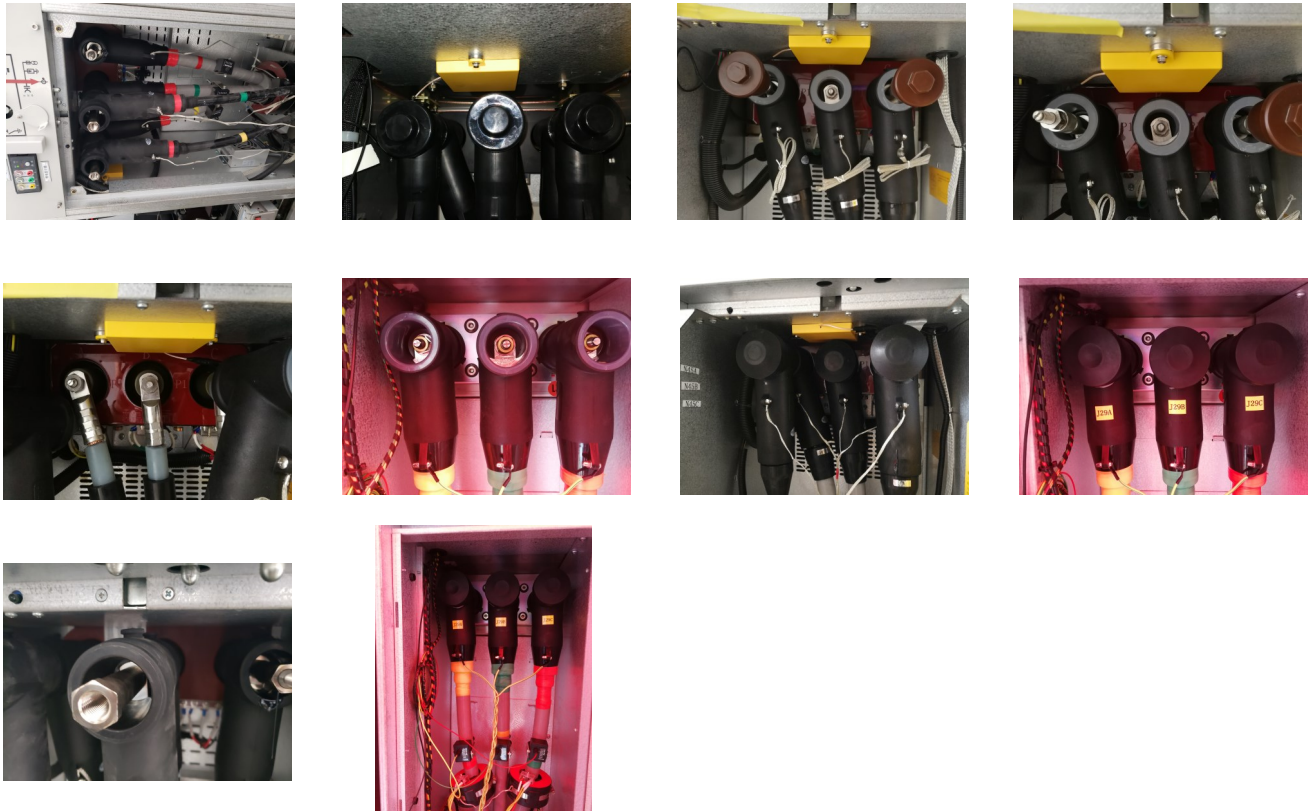




Ring Main Unit Application Case # 1

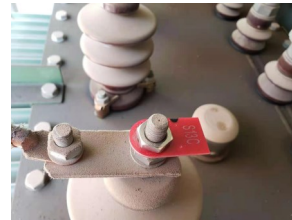
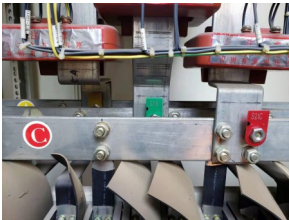


Ring Main Unit Application Case # 2

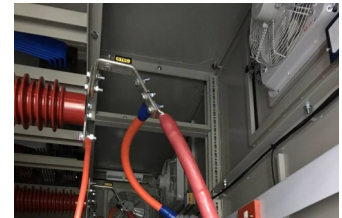
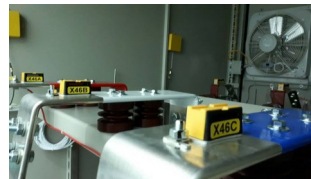
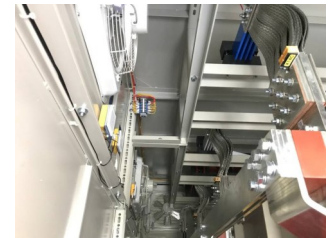
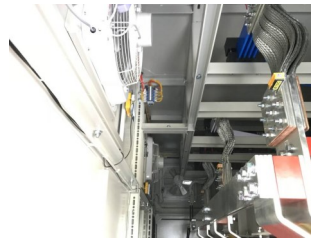
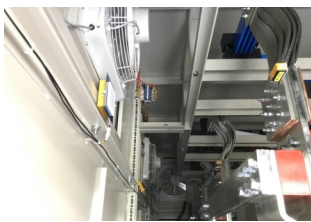




Transformer Application Case # 1



Transformer Application Case # 2





Pole Transformer Application Case # 1



Low Voltage Application Case # 1





PQSense Technology Ltd.

www.pqsense.com.tw