

Improved Service Life and Service Continuity of your Medium Voltage Equipment with 24/7 connectivity

PIX Active Medium Voltage Switchgear

"I want to monitor the condition of my equipment to ensure service continuity with a preconfigured secure solution"

Our Solution

PIX active medium voltage switchgear is equipped with smart thermal and environmental sensors and is connected from your substation to our digital remote monitoring platform EcoStruxure™ Asset Advisor for a 24/7 health assessment of your installation from day 1.

Through your cyber-secured customer portal, you will have instant access to:

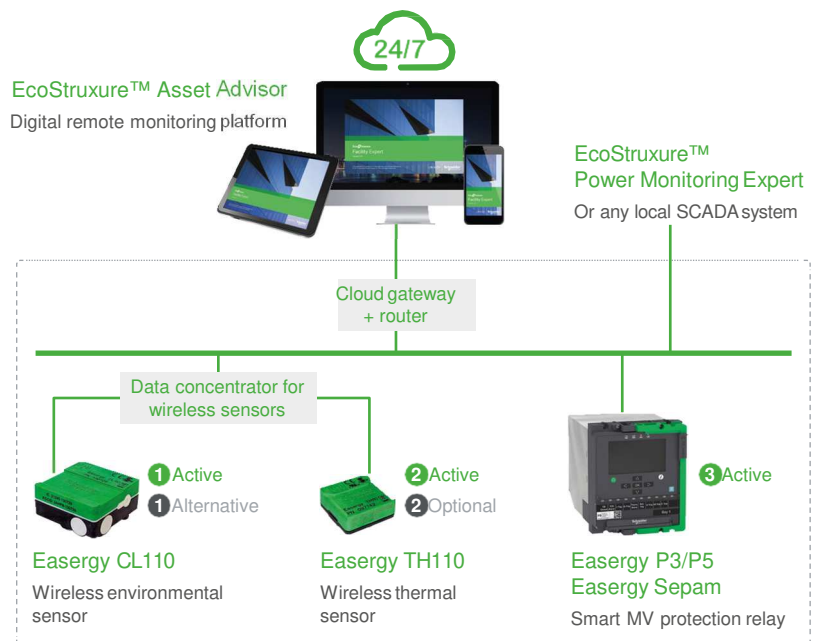
- the condition monitoring of your equipment
- smart alarming in case of issues or abnormal conditions
- predictive maintenance recommendations to maximize the service life of your equipment
- Schneider Electric 24/7 experts remote platform.

PIX Active Switchgear

Example of configuration with standard and optional sensors



EcoStruxure™ Asset Advisor
Digital remote monitoring platform



se.com

Life Is On

Schneider Electric

Services and Products in PIX Active Switchgear

PIX active switchgear is preconfigured from our factory for native connection to EcoStruxure Asset Advisor:

PIX active switchgear integrates our latest smart sensors and devices:

EcoStruxure Asset Advisor

24/7 Cloud-based Service for Efficient Maintenance

Asset & Switchgear Health Management

- Site risk level and health matrix
- Thermal monitoring of connection points
- Environmental monitoring of electrical rooms and cubicles
- Circuit breaker monitoring (electrical & mechanical wear, opening time status, health index, notification index)



Site risk level and health matrix

24/7 Remote Expert Platform

- 24/7 access to experts
- Dedicated phone number

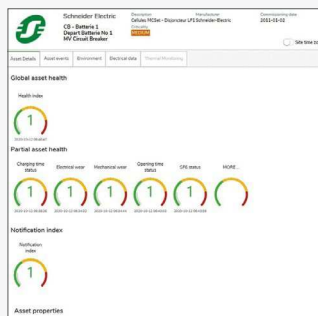
Smart Alarming

- Web PC interface & mobile app
- 24/7 smart alerts and alarms
- Automatic monthly summary reports

Predictive maintenance recommendations

(Asset Advisor Predictive only)

- Condition-based recommendations
- Predictive insights and customized reports
- Asset status and trends monitored weekly by experts



Circuit breaker monitoring

Cybersecurity

- Developed according to the IEC 62443-4-1 standard and compliant with the GDPR
- Encryption of data in transit and at rest
- Only outbound connections allowed
- Integrated firewall in the gateway to avoid remote control
- Using MS Azure security features
- Rigorous registration and authentication procedure

2.1 Recommendation Synthesis				
Description	Date/Period	Recommendation	Service requirement	Section
Temperature rise on the Tap Floor	March/April	Verify cooling systems	Verify temperature thresholds and maintenance level	\$1.1
Mesh 20P Thunderbolt	04/29/2018	Make sure all assets are undamaged	Consider expert Post-Fault Analysis of event	\$3.2
Power factor levels	Recurrent	(Normally corrected upstream)	Verify suitability of capacitor bank connection system.	\$3.3
Voltage stability	Periodic	Switch Tap changes to an automatic mode	Define and set the appropriate Auto-tap-changing mode	\$3.4
Measure service Voltage levels	Recurrent	Verify suitability of Service Voltage	Check motor's rated voltage and tolerance range	\$3.5
Power spikes	April 10P	Find root cause equipment	Make a root cause analysis of the 2 failures	\$3.6
Drive sizing	Recurrent	Modify process requirements or replace Drives	Review Drives to the appropriate rating	\$3.7
Tap's motor controller, fault and operation mode	Recurrent	Set all motors at the right level, replace that case	Analyze replacement and operation strategy	\$3.8

Predictive insights and customized report

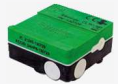
Easergy CL110

Wireless Environmental Sensor

Measure ambient temperature and humidity to detect abnormal conditions in:

- The switchgear electrical room
- The cable or busbar or LV compartment of one cubicle in every 5
- The cable or busbar or LV compartment of every cubicle (optional)

Dew point calculation (condensation)
Battery-powered (service life > 15 years)



Easergy TH110

Wireless Thermal Sensor

Help ensure continuous thermal monitoring to detect potential loose connections of:

- Cable connections
- Busbar connections (optional)
- Circuit breaker arms (optional)

Battery-less sensor



Easergy P3/P5 (also works with Sepam)

Medium Voltage Protection Relay

Easergy P3/P5 provides:

- Industry-leading protection and control functions
- Built-in arc flash protection
- Advanced connectivity with support for 8 com. protocols, including IEC61850
- Nearby operation through your smartphone



Easergy P5 also comes with:

- Cybersecurity compliance (IEC 62443-4-1 standard and Achilles certification)
- Withdrawable design with 10 minute recovery time
- Large color screen for advanced display

Key Products and Services

Connected products	Description
PIX	Primary MV air insulated switchgear (AIS) with withdrawable circuit breaker
Apps, analytics & services	Subscription type
EcoStruxure™ Asset Advisor	<ul style="list-style-type: none"> • 24/7 cloud-based service for efficient preventive maintenance • 24/7 cloud-based service for efficient preventive and predictive maintenance



Contact your sales representative for more information on these solutions

se.com/ww/ecostruxure-power

Life Is On

Schneider Electric

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