Design Envelope Controller

Designed to optimize the performance of Armstrong's Design Envelope equipment through on-board speed and flow controls, connectible to Envelope Cloud delivering Active Performance Management and the plant's BMS.

Why choose Design Envelope Technology?

SENSORLESS CONTROL

Design Envelope enabled products model equipment and system behaviour monitor actual system conditions to dynamically adjust equipment system demand.

SYSTEM FLEXIBILITY

Fully automatic, I/O sensor based, and BMS integration ready controllers with preset modes to fit your application needs.
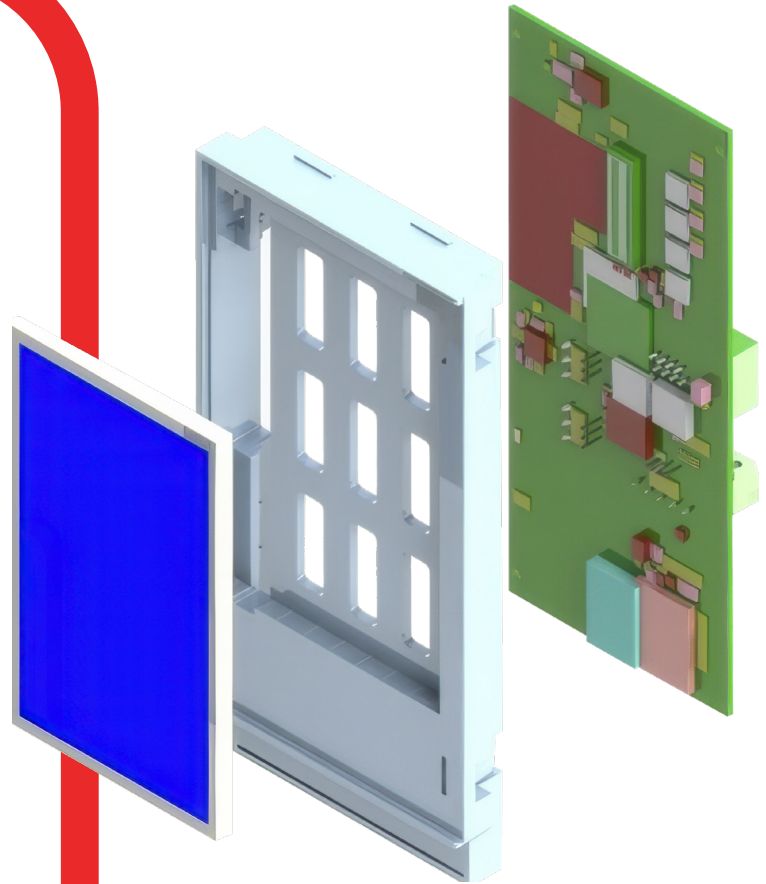
BEST EFFICIENCY STAGING

Design Envelope enabled equipment work together, as a system, to achieve the best efficiency points maximize energy savings.

CLOUD CONNECTION

Design Envelope equipment connect to Envelope Cloud for early diagnostics, and advanced analytics.

Envelope Cloud helps you manage your building's assets from anywhere, anytime and on any device.

DEVICE FEATURES

Delivers a standardized integration point list.

Bluetooth ready for the Digital Wrench Mobile app.

Local HMI support for quick access to pump status.

IoT native controller ready for Cloud integration makes management of the assets highly available.

Make the most of your Design Envelope products with 360 Service and Support: **SMART Startup, Commissioning and Recommissioning, Parallel Sensorless Control Protection Bundle**

Design Envelope Controller

Technical Specifications

COMMUNICATION PROTOCOLS	Wi-Fi – IEEE 802.11b, IEEE 802.11g, IEEE 802.11n network standards 2.4 GHz single band frequency
	RS-485 (2 ports) – 1 BMS 1 CANbus daisy chain capable (115 Kbps baud rate)
	Ethernet – 10Base-T/100Base-TX IEEE-802.3 compliant
BMS PROTOCOLS	Modbus – RTU/IP BACnet – MS/TP and IP
BLUETOOTH CAPABILITY	BLE v5.1 2.4 GHz frequency
DISPLAY	LCD screen – 4.3" (diagonal) 480 x 272 resolution UV protection film
REAL TIME CLOCK	3V CR2032 battery backup up to 3 years
INPUT VOLTAGE RANGE	22V ~ 36V DC
MIN. REQUIRED CURRENT	150 mA
MICROPROCESSOR	32-bit ARM Cortex-M4F 120 MHz, 150 DMIPS performance
UNIVERSAL I/O	Capable of integration via Modbus RTU

Environmental Limits

OPERATING TEMPERATURE RANGE	-20 ° to 70 °C (-4 ° to 158 °F)
STORAGE TEMPERATURE RANGE	-30 ° to 70 °C (-22 ° to 158 °F)
OPERATING LIMIT	Fully operational at 60 °C/90% relative humidity
VIBRATION RATING	Up to 2 g-force

Product Imagery

COMPLIANCE

US FC UL LISTED CA UL LISTED EU CE

DESIGN ENVELOPE CONTROLLER | 90.204

PRODUCT SPECIFICATIONS