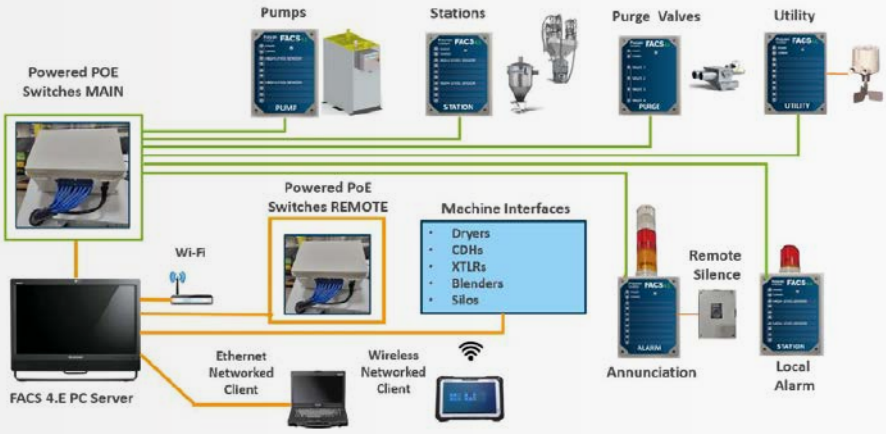
FACS 4.E



Simple, ethernet connectivity for power and control

Infinite Low-Cost DIY Expansions

PC Server HMI with up to 16 Clients PCs or Tablets with Machine Auxiliary Interface

FACS 4.E DISTRIBUTED POWER/CONTROL

Conveying System Controller using "Power Over Ethernet" technology for communication and powered device operation. HMI is accomplished using Windows PCs Server workstation, with available 16 client computers or tablets for re-mote monitoring and access. POE Switch Panels are provided to comprise the FACS Machinery Network, configured with the necessary POE Ethernet Ports to connect to remote device panels to operate the system components.

FACS Panels are available for Pumps, Station groups, Purge Valve groups and Utility Panels, each with the required I/O points to operate the equipment. Alarm visualization is provided with dedicated Annunciator Panel, configurable to the selectable component conditions.

Equipment groups are assembled in proximity to the Main POE Switch, to operate the local area machines. Remote POE Switches can be added to the Non-POE network to provide additional I/O points in a remote area using Star Network Topography.

FACS 4.E is more than a conveying system control, it can serve as a central supervisory system with direct machinery interfaces for monitoring and control of Dryers, Central Dryer Units, Crys-tallizers, Blenders and Silos.

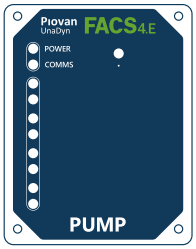
Using the Windows-based platform, FACS 4.E is simple to install, setup and operate. Full graphic displays show all component functions and device indication. Extensive input screens are available for all device parameter setting.

All changes are logged with Event and Alarm History reports are available on demand, selectable by production range.

FACS 4.E SYSTEM COMPONENTS

FACS POE Switch Panels	POE-8: 7 usable ports, 1 reserved for FACS Server Network POE-16: 15 usable ports, 1 reserved for FACS Server Network and (2) used for joining (2) (8)-port integral switches Requires 110 VAC power
FACS 4.E Modules	- Compact panel with control and communication boards - External Ethernet connector - Component Operation I/O Visualization with LED Indication - (4) Terminalized Connectors to paired I/O Points

Pump Module – Single Pump and Filter



Inputs: * Required

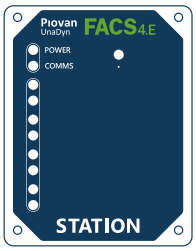
- Vacuum Switch *
- Motor Overload
- Local On/Off

Outputs: * Required

- Vacuum Pump Motor Starter *
- Vacuum Breaker Valve
- Filter Pulse
- Exhaust Segregation

Server Network for HMI and Remote Interface

Station Module – Single, Quad, Dual Bonus or Dual Simple/One Bonus



Inputs: * Required + **(3)**

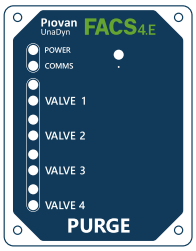
- Load Level Sensor *
- High Material Sensor for Load-Till-Full or Continuous Vacuum
- Stop Load Input
- Local On/Off

Outputs: * Required + **(3)**

- Vacuum Sequence Valve *
- Dual Ratio Valve
- Positive Shut-off
- Filter Pulse
- Dump Valve
- Local Purge Valve
- Local FACS 4.E Box Alarm

Standard Terminalized I/O Plug/Connectors

Purge Module – Operates up to (4) Material Global Purge Valves

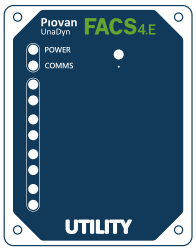


Outputs:

- Purge Valve 1
- Purge Valve 2
- Purge Valve 3
- Purge Valve 4

System-wide Alarm Annunciator with optional remote silence

Utility Module – Operates up to (4) discreet custom alarm outputs



Outputs:

- Utility Point 1
- Utility Point 2
- Utility Point 3
- Utility Point 4

Panel-mounted Local Alarm

Piovan UnaDyn