



Model FLX-128

CLEANROOM CONVEYING POWER FLEXIBLE AND SIMPLE TO EXPAND

Start small and grow, or bring all conveying needs into a common system. The FLX-128 flexible control system utilizes a combination of centralized I/O and expansion modules, interconnected via industrial Ethernet to provide control of up to 128 receivers, 40 pumps (plus 2 back-up pumps) and 256 source valves. A full color touch screen with descriptive picture icons assures that even with little or no training, any user will be comfortable monitoring or making changes on up to 40 independently operating vacuum systems.

MODULAR I/O CONTROL; CLEANROOM READY

Conveying components are commonly spread across plants; on processing machines, on mezzanines, in pump rooms, on multi-component blenders and source valves, grouped at material supply hoppers. In these common arrangements, the FLX-128 conveying control is right at home, providing input/output (I/O) capability in modular panels, interconnected via Ethernet. Connections to individual conveying components are minimized since I/O modules can be placed where they are needed and connected back to the main FLX-128 control via Ethernet.

The FLX-128 system utilizes programmable logic controllers (PLC's) in modular panels, along with touch screen panel(s), equipped with colorful icons to assure that all authorized personnel can operate the system. Shared conveying components, like back-up pumps and material purge valves operate seamlessly with multiple vacuum systems, all controlled by the FLX-128.

■ Economical and expandable

Buy only the control capacity you need today, and then expand with additional modules as your business grows. The FLX-128 is the right choice for small systems all the way up to 128 receivers and 40 pumps.

■ Minimize wiring with modular components

Groups of receivers, pumps and valves can be easily added with a simple Ethernet connection to modular expansion panels.

■ Color touch screen; chemical resistant

The 8-inch full color touch screen control provides easy navigation via internationally understood icons. Add up to five additional touch screens, wherever you need them. A 15-inch control is available as an option. The control features RAL 9003 powder coated paint, touch screen is chemical resistant and can be cleaned with isopropyl alcohol.

■ Remote access via web pages

Ethernet connection allows you to connect and view the system from any PC, anytime, anywhere.

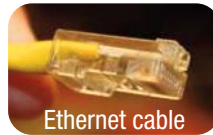
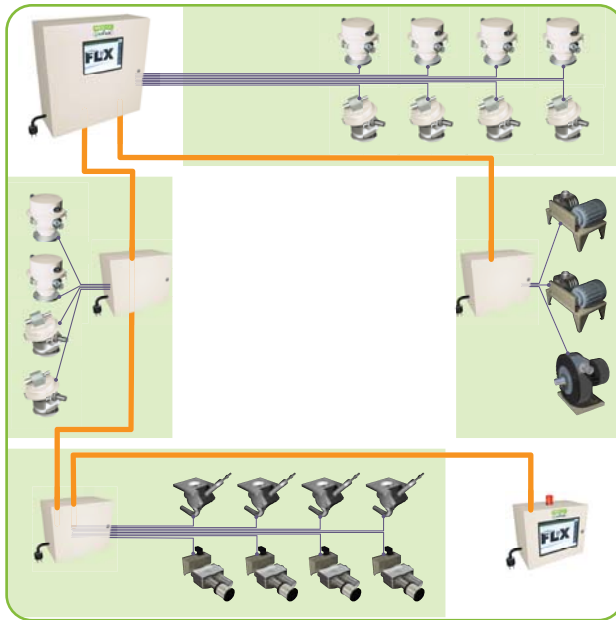
■ Tap into ControlWorks

Link all of your auxiliaries, and even processing equipment, via the monitoring, control and trending capabilities of Conair's exclusive ControlWorks 2.0™ network.



MODEL FLX-128

HOW IT WORKS



Ethernet cable



Fiber optics

■ Input and output signals can be connected via a Conair UTB (Universal Terminal Box) for an easy plug-in loader connection.

■ Ethernet makes the long runs. Via CAT 5 copper wire or fiber optics, the Ethernet network connects all of the FLX expansion panels. Receivers, pump and valves then wire into these localized panels.

■ Once I/O panels are interconnected to the main FLX control panel, the FLX instantly recognizes them and makes all connected conveying components available for use. The FLX automatically provides pump management for independently operating systems that call upon shared source valves at the same time.

■ Each expansion panel is networked back to the main control and provides the input/output capabilities required for that group of conveying components.

FEATURES

- First-In/ First-Out (FIFO) priority loading
- Multi-source, multi-destination conveying
- Unloading (reverse regrind) system capability
- Ratio loading, positive discharge and fill sensor operation
- Purge and pocket valve operation
- Broad choice of expansion panels for system growth
- Up to six Human Machine Interface (HMI) panels
- Multiple levels of password protection
- Set-up Wizard, I/O test mode, help screens
- Preventive maintenance tracking
- CAT 5 or fiber optic network wiring
- Industrial Ethernet communications

OPTIONS



■ Add simple expansion panels for groups of receivers, pumps, source valves or a combination of receivers and valves.

■ Control where you need it. Up to six full color operator interface panels can be located wherever is best for you. Each panel controls the entire conveying network.

■ Remote alarm and/or Remote HMI with alarm.



MODEL FLX-128

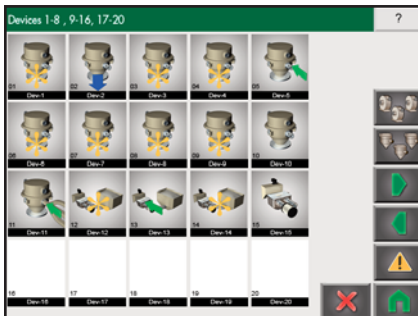
CONTROL FEATURES



The FLX conveying control system is not only powerful and flexible, but is also the most convenient loading system control to operate.

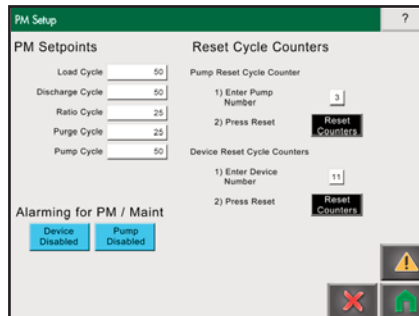
- Colorful icons mimic the system components they represent and change to show operating status with minimal need for words.
- Help screens provide multi-lingual support for every page and every control activity.
- Shop floor personnel immediately understand and find the touch screen FLX very easy to use.

OPERATING SYSTEM



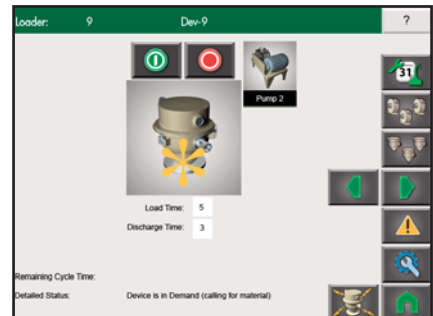
■ An entire group of receivers can be viewed at once and each function is exhibited so you know exactly what's happening in your operation. Shown are loading, dumping and demand activities.

PREVENTATIVE MAINTENANCE



■ The FLX-128 automatically keeps track of equipment run times to help you plan periodic maintenance. Back-up pumps may be easily selected with the press of an icon on the touch screen.

DETAILED SCREENS



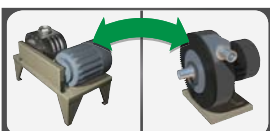
■ From selecting equipment interconnections to adjusting load times, monitoring and managing resin movement throughout your factory has never been easier.



Central vacuum unloading: Each FLX-128 has the ability to not only load hoppers and machines, but also unload vessels that need to be kept evacuated, like granulator bins. A level sensor in the bin can trigger unloading from multiple bins to a common receiver, or dedicated receivers.



Multi-source: The multi-source button allows a single receiver to pull material from multiple sources to a common destination.



Make it clear: The FLX-128 not only displays icons that aid in understanding system operation, but specific icons can be selected for the actual equipment in use, with minimal need for words.

Valve sharing: The FLX-128's sophisticated pump management capability, often referred to as valve sharing or pump stacking means the FLX-128 will automatically organize multiple demands on common components like purge valves, streamlining operation and eliminating redundant equipment needs.

System restoration: Both the PLC program and user settings are preserved on memory cards for safekeeping.

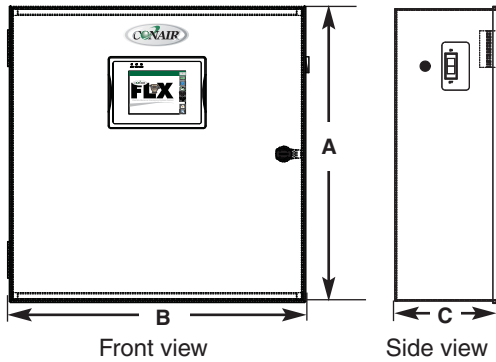
Email and text option: With this option, the FLX-128 can send alarm messages as emails or text messages.



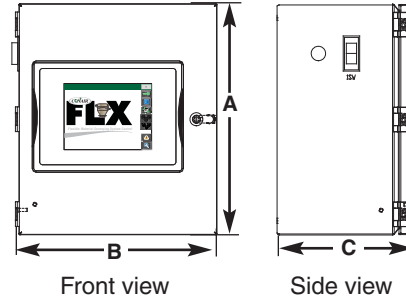
MODEL FLX-128

SPECIFICATIONS

Main control panel and Remote I/O



Remote HMI and Expansion Panels



MODEL		FLX-128				
Performance characteristics						
Maximum number of vacuum receivers	up to 128					
Maximum number of vacuum pumps	up to 40 (plus 2 back-up)					
Programmable logic controller:						
Main control panel	Wago 750-880					
Remote I/O	Wago 750-871					
Operator interface	Red Lion (8 inch standard, 15 inch optional)					
Output voltage to receivers/valves	24 VDC (24/120 VAC optional)					
Input voltage to receivers	24 VDC					
Output voltage to pumps	24 VDC (24/120 VAC optional)					
Power/Amps	120 VAC/16 Amps/60 Hz					
Input/Output capabilities						
	Main control panel (available with or w/o HMI)*	Remote I/O (available with or w/o HMI)*	Receiver expansion panel	Pump expansion panel	Source valve expansion panel	Receiver/valve combo expansion panel
Receivers	Up to 32	Up to 32	Up to 8 [†]	-	-	Up to 8
Pumps	Up to 10, (plus 1 back-up)	Up to 10, (plus 1 back-up)	-	Up to 4	-	-
Valves	Up to 64	Up to 64	-	-	Up to 16	Up to 16
Dimensions inches (mm)						
	Main control panel	Main control w/ optional voltage	Remote I/O w/ HMI	Remote I/O w/HMI w/ optional voltage	Remote HMI	Expansion panels
A - Height	24 {609}	36 {914}	24 {609}	36 {914}	14 {355}	14 {355}
B - Width	24 {609}	30 {762}	24 {609}	30 {762}	12 {304}	12 {304}
C - Depth	8 {203}	8 {203}	8 {203}	8 {203}	8 {203}	8 {203}
Weight lb (kg)						
Installed	60 {27}	48 {21}	60 {27}	60 {27}	29 {13}	22 {10}
Shipping	72 {32}	60 {27}	72 {32}	72 {32}	36 {16}	35 {15}

Maximum number of expansion panels (per panel type) ‡	
Main control panel	1 panel maximum (32 loaders and 64 valves each - with or without HMI)*
Remote I/O panel	1 panel maximum (32 loaders and 64 valves each - with or without HMI)*
Receiver expansion panel	8 panels maximum (8 loaders each, or 16 loaders each with no options)
Pump expansion panel	5 panels maximum (4 pumps each)
Source valve expansion panel	8 panels maximum (16 valves each)
Receiver/valve combo expansion panel	8 panels maximum (8 loaders and 16 valves each)

SPECIFICATION NOTES

* Maximum of six HMI total.
 † Total number of receivers on the receiver expansion panel can be 8 with options (fill sensor) and alarms, or 16 with no options.
 ‡ Selected I/O expansion panels cannot exceed the total FLX capacity of 128 receivers, 40 pumps and 256 source valves.

Specifications may change without notice. Check with a Conair representative for the most current information.

