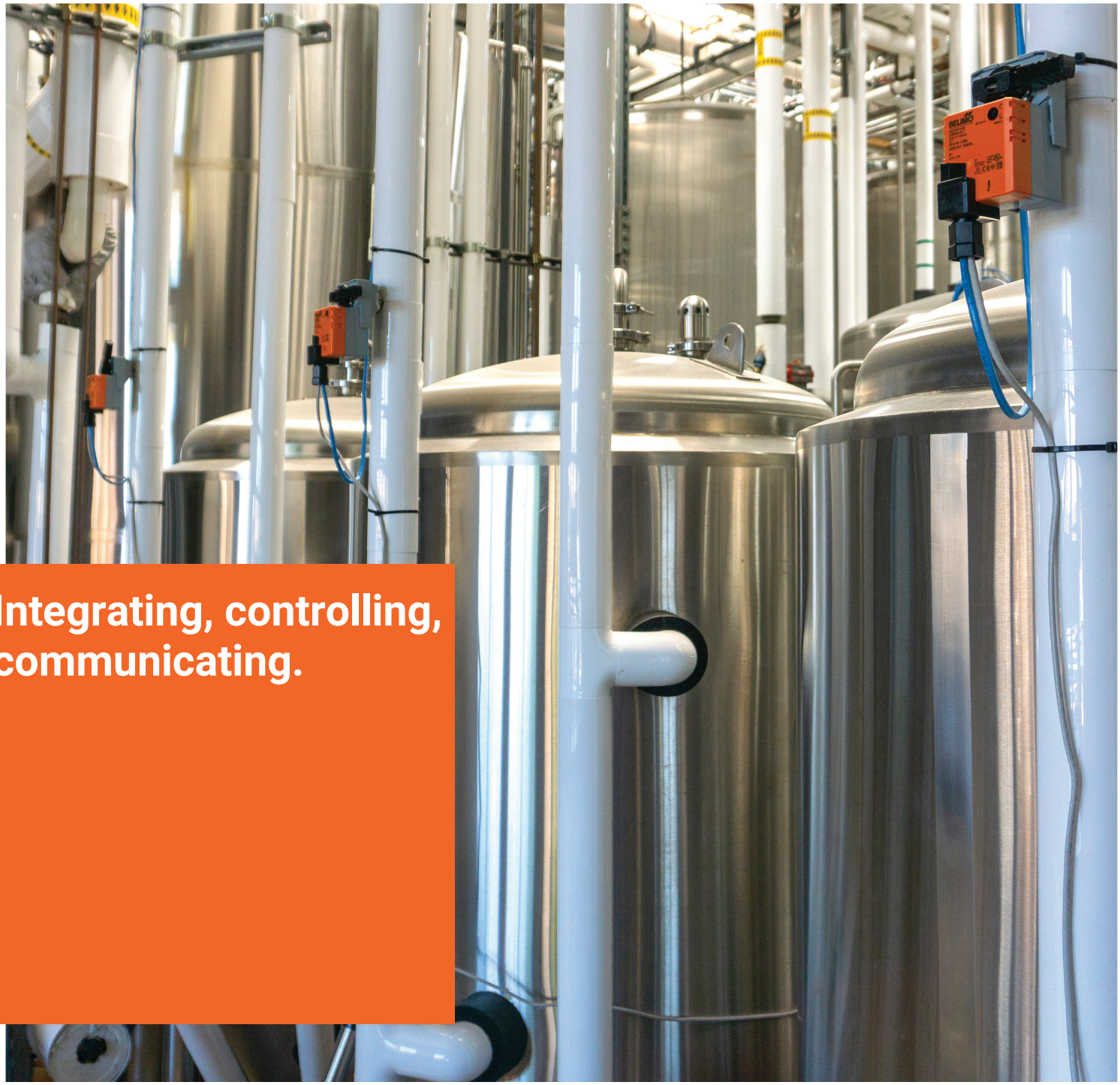


Integrating, controlling, communicating.

Connected Device Solutions

Discover the advantages
www.belimo.com

BELIMO

System integration

The integration of digital communication into HVAC devices and equipment enhances flexibility, enabling innovative solutions that can be controlled, monitored, and maintained remotely.

Building Management System (BMS) operators benefit from seamless access to device data for efficient monitoring and system control. Facility managers gain valuable insights into equipment operation and performance, allowing for timely fault detection and streamlined diagnostics. Available data includes sensor values, control input, device position, min/max ranges, and other operational parameters.

BTL · BACnet · Testing Laboratories

Modbus

BELIMO CLOUD

Flexible control

To meet the evolving needs of connected buildings, Belimo has developed intelligent controlled devices that enhance installation, data transparency, and extensibility, without requiring infrastructure changes. With digital connectivity, you can control, service, and optimize your building more efficiently. Belimo empowers building operators in an increasingly connected world.

Additional Data

Each device has a digital address, so the BMS can accurately identify data sources and send precise commands for optimized control and operation.

Efficient Installation

The integration of Modbus or BACnet actuators enables direct digital connection to the BMS. Actuators and sensors connected to a network segment eliminate traditional home-run wiring costs and installation time.

Future Proof Expandability

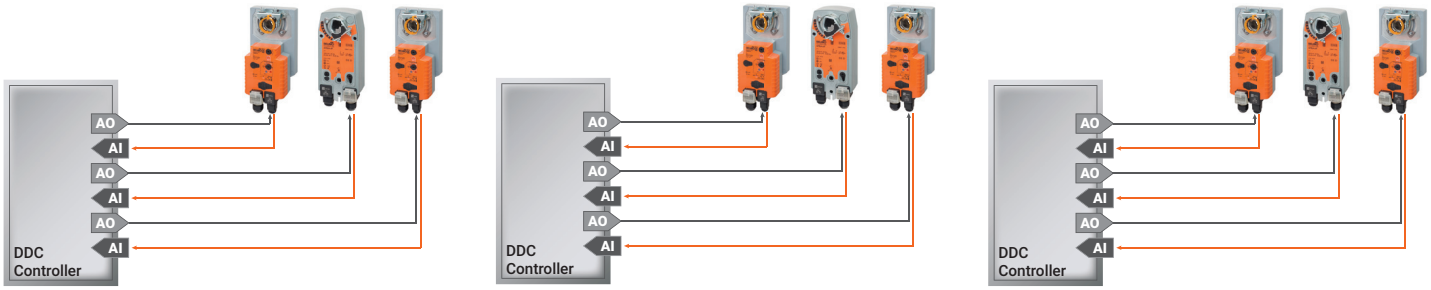
Dedicated inputs and outputs are no longer necessary. Devices can be added at any time without costly infrastructure changes, ensuring scalability and future growth.

"By using a bus connected actuator, we can wire up to twenty-four individual fermentation tanks to one centralized control panel. When a brewery wants to add on more fermentation vessels, the connection is easily made at the last actuator on the bus."

Robert Esposito, Chillertron

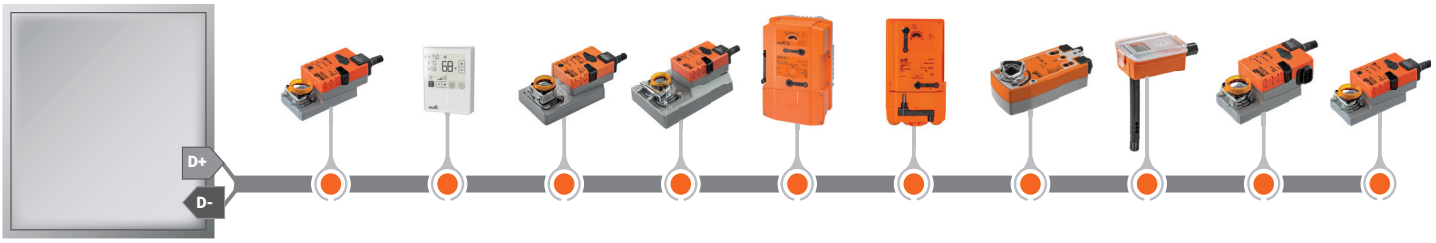
Maximizing communications

Stand Alone DDC Controls Connected to Analog Field Devices



VS.

Networked BACnet or Modbus Field Devices



System integrators can take full advantage of Belimo field devices' flexible control with built-in BACnet or Modbus digital communications. Actuators and sensors integrate directly to the BMS, allowing system integrators to use existing industry software for field device setup, monitoring, and control of connected devices. No additional hardware is required, thus reducing errors and shortening commissioning time. Additionally, costly home-run wiring associated with traditional DDC systems with analog field devices is no longer necessary.

Bus control with sensor integration

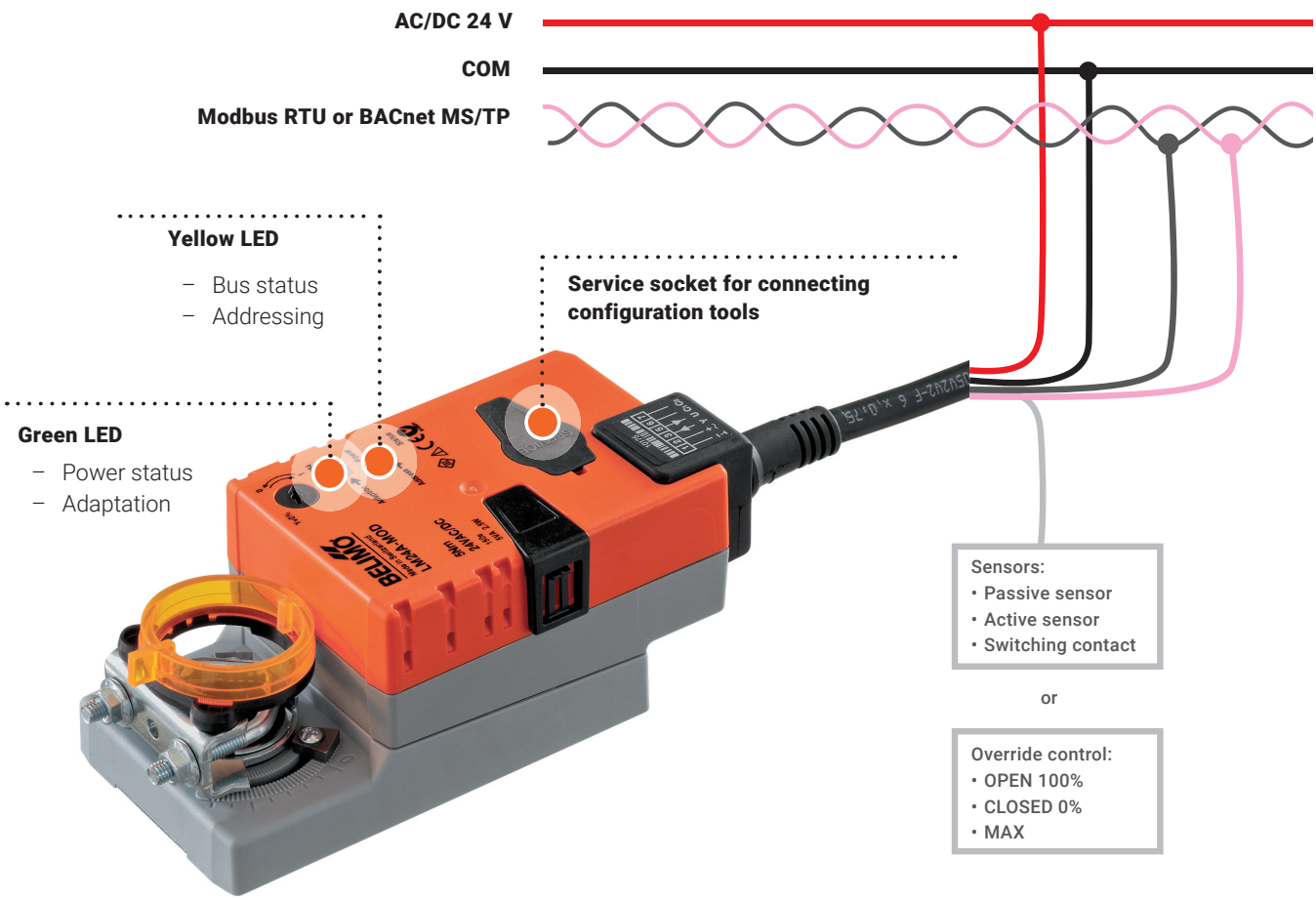
Improving efficient installation

Integrating sensor data directly to the actuator saves wiring costs, and reduces the complexity associated with home-run wiring for sensors. Digital communication actuators feature up to two auxiliary inputs for connection to an active or passive signal, or dry contact. The signals are digitized in the actuator and transferred to the BMS over Modbus or BACnet. The actuator using local override control can be fully open or closed with a preset maximum value.

Facility managers or service technicians can take full advantage of networked field devices to troubleshoot or make parameter adjustments. Actuator performance data can be read by the system level controllers to make HVAC equipment more efficient.

FEATURES

- Provides advanced functionality to control, monitor, and optimize building performance
- Advanced technology enables integration, automation, and enhanced operational efficiency
- Significantly reduce troubleshooting time, maintenance costs, and system complexity
- Improve control, fault detection and diagnostics, streamlining setup and maintenance



Solutions

Air Solutions

Model #	Torque	Communication	Sensor Inputs	Passive Sensor	Analog (Active) Sensor	Contact Closure	Configurable
Non Fail-Safe							
LMB24-IP	45 in-lb [5 Nm]	Modbus TCP / BACnet IP / Belimo Cloud	2	■	■	■	■
NMB24-IP	90 in-lb [10 Nm]	Modbus TCP/BACnet IP / Belimo Cloud	2	■	■	■	■
AMB24-IP	180 in-lb [20 Nm]	Modbus TCP / BACnet IP / Belimo Cloud	2	■	■	■	■
GMB24-IP	360 in-lb [40 Nm]	Modbus TCP / BACnet IP / Belimo Cloud	2	■	■	■	■
LM24A-MOD	45 in-lb [5 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
NM24A-MOD	90 in-lb [10 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
SM24A-MOD	180 in-lb [20 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
GM24A-MOD	360 in-lb [40 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
PMBUP-MFT-T	1400 in-lb [160 Nm]	Modbus RTU / BACnet MS/TP	2	■		■	■
Fail-Safe							
NF24A-MOD	90 in-lb [10 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
SF24A-MOD	180 in-lb [20 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
PKBUP-MFT-T	1400 in-lb [160 Nm]	Modbus RTU / BACnet MS/TP	2	■		■	■
Linear							
LH24A-MOD200	34 lb [150 N]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
Quick Running							
SMC24A-MOD	180 in-lb [20 Nm]	Modbus RTU / BACnet MS/TP	1	■	■	■	■
System Solutions							
VAV Compact							
LMV-D3-MOD	45 in-lb [5 Nm]	Modbus RTU / BACnet MS/TP	1		■	■	■
NMV-D3-MOD	90 in-lb [10 Nm]	Modbus RTU / BACnet MS/TP	1		■	■	■
VAV Universal							
VRU-D3-BAC	-	Modbus RTU / BACnet MS/TP	1	■	■	■	■
VRU-M1-BAC	-	Modbus RTU / BACnet MS/TP	1	■	■	■	■
VRU-M1R-BAC	-	Modbus RTU / BACnet MS/TP	1	■	■	■	■

Water Solutions

Model #	Size	CCV*	Butterfly	Pressure Independent	Communication	Sensor Inputs	Passive Sensor	Analog (Active) Sensor	Contact Closure	Configurable
Non Fail-Safe										
+LRB24-IP	½…1¼"	■			Modbus TCP, BACnet IP / Belimo Cloud	2	■	■	■	■
+ARB24-IP	1¼…3"	■			Modbus TCP, BACnet IP /Belimo Cloud	2	■	■	■	■
+LR24A-MOD	½…1¼"	■			Modbus RTU / BACnet MS/TP	1	■	■	■	■
+NR24A-MOD	1¼…3"	■			Modbus RTU / BACnet MS/TP	1	■	■	■	■
+SR24A-MOD	1¼…3"	■			Modbus RTU (22RT-A001)	1	■	■	■	■
+GR24A-MOD-5	4…6"	■			Modbus RTU (22RT-A001)	1	■	■	■	■
+PRBUP-MFT-T	1…6"		■		Modbus RTU, BACnet MS/TP	2	■		■	■
+JRBUP-MFT-T	1…6"		■		Modbus RTU, BACnet MS/TP	2	■		■	■
Non Fail-Safe										
+PRXUP-MFT-T	1…12"	■	■		Modbus RTU, BACnet MS/TP	2	■		■	■
Fail-Safe										
+AFRB24-IP	1¼…3"	■			Modbus TCP, BACnet IP / Belimo Cloud	2	■	■	■	■
+AKRB24-IP	1¼…3"	■			Modbus TCP, BACnet IP / Belimo Cloud	2	■	■	■	■
+PKRXUP-MFT-T	1…12"	■	■		Modbus RTU, BACnet MS/TP	2	■		■	■
Performance Devices										
Electronic Pressure Independent Valve (ePIV)										
6-way ePIV	½…1"	■		■	Modbus RTU, BACnet MS/TP, MP-Bus	1		■		■
2-way ePIV	½…6"	■		■	Modbus RTU, BACnet MS/TP, MP-Bus	1		■		■
Belimo Energy Valve										
2-way EV	½…6"	■		■	Modbus RTU, Modbus TCP/IP, BACnet MS/TP, BACnet IP, MP-Bus, Belimo Cloud	1		■		■

*Actuator options for ball valves vary by product family.

Note: Performance devices, ePIVs and Energy Valves have predefined sensor inputs that are application specific.

Sensor Solutions

Types	Multirange	Temperature	Humidity (Relative Humidity, Absolute Humidity, Enthalpy, Dew-Point)	CO_2 (Self-Calibrating Dual Channel)	Differential Pressure	Display	Auto-Zero	Flow and BTU	Communication
Duct/Air/Room									
Temperature / Humidity / Air Quality									
22DTH-55M	■	■	■						Modbus RTU
22DTH-56M	■	■	■						BACnet MS/TP
22DTM-56	■	■	■	■					BACnet MS/TP
22RTM-5U00D	■	■	■	■		■			Modbus RTU, BACnet MS/TP
22RTM-5U00A	■	■	■						Modbus RTU, BACnet MS/TP
Pressure									
22ADP-55Q	■				■				Modbus RTU
22ADP-55QL	■				■	■			Modbus RTU
22ADP-55QA	■				■		■		Modbus RTU
Outdoor / Air									
Humidity / Temperature									
22UTH-550X	■	■	■						Modbus RTU
22UTH-560X	■	■	■						BACnet MS/TP
Gas Monitors									
22G15-5B6		■		■		■			BACnet MS/TP
22G15-5A5	■	■		■		■			BACnet MS/TP
C-22G-5B		■				■			BACnet MS/TP, CAN bus
Flow									
22PE	■	■						■	Modbus RTU, Modbus TC/IP, BACnet MS/TP, BACnet IP, MP-Bus, Belimo Cloud

See full line of sensors and gas monitors at www.belimo.com

PF_51 – 03.2025 – Subject to technical modifications

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