

BMSline

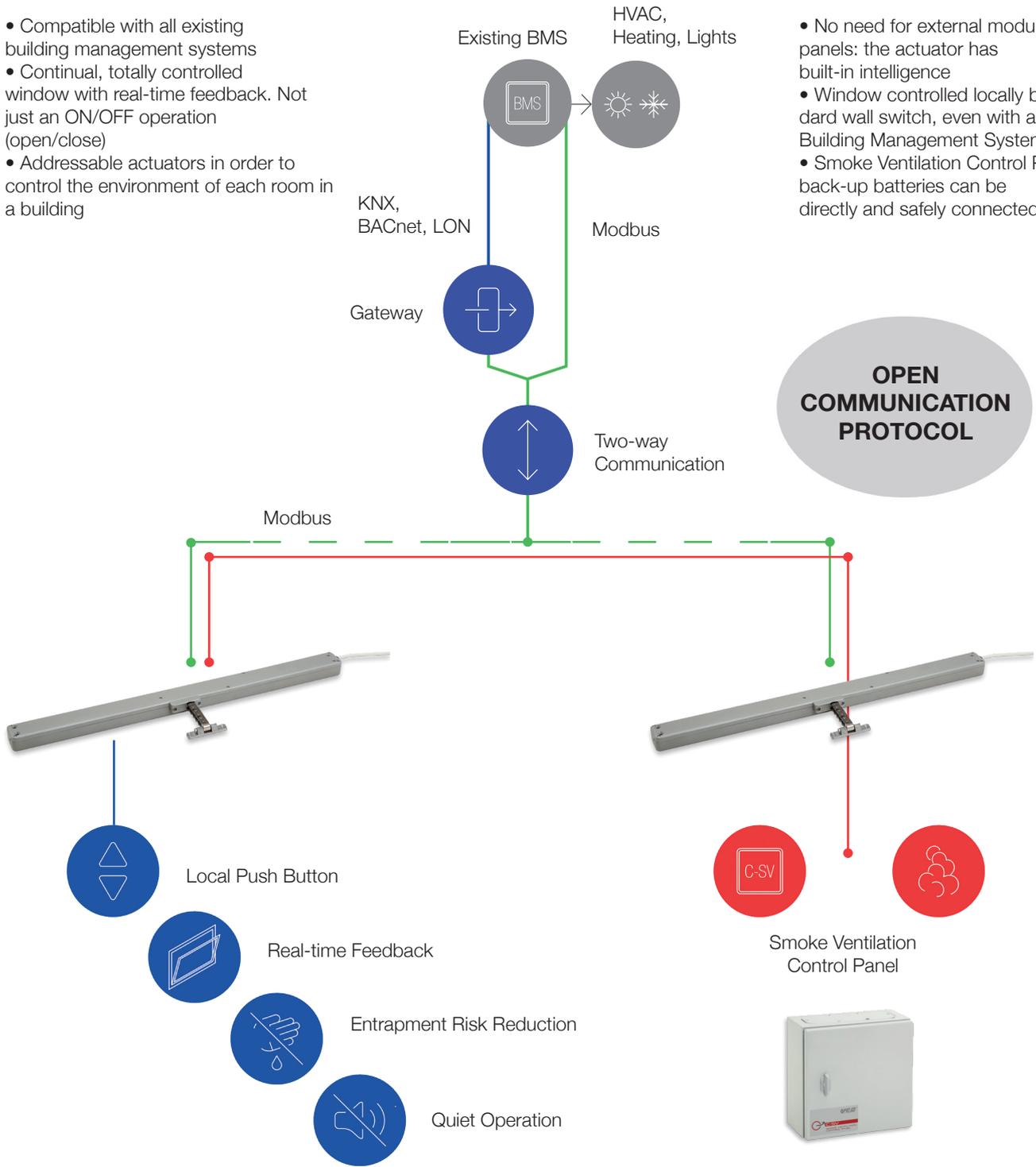
Integrating window automation into Building Management Systems

BMSline programmable and addressable chain actuators

New generation of compact actuators with integrated programmable circuit board, providing two-way communication with computer system. All actuator functions are totally programmable and the actuators provide 100% real-time feedback on their status. Integrating window automation with the BMS Building Management System will enable interaction with other systems in building (HVAC, lighting...) granting considerable energy saving, improving comfort and wellbeing, becoming health and productivity. At the same time the building's safety is assured by smoke ventilation in emergencies.

- Compatible with all existing building management systems
- Continual, totally controlled window with real-time feedback. Not just an ON/OFF operation (open/close)
- Addressable actuators in order to control the environment of each room in a building

- No need for external modules/control panels: the actuator has built-in intelligence
- Window controlled locally by a standard wall switch, even with a centralized Building Management System
- Smoke Ventilation Control Panels with back-up batteries can be directly and safely connected.



- Local Push Button
- Real-time Feedback
- Entrapment Risk Reduction
- Quiet Operation

- C-SV
- Smoke Ventilation Control Panel

- Energy Saving & Wellbeing
- Reduced installation & setup cost
- Integration in existing BMS
- 100% safety condition



BMSline

Programmable and adressable chain actuators

The BMSline smart features are available for QUASAR, TWIN QUASAR, VEGA and NANO actuator series with 24Vdc voltage supply

<p>Programmable parameters</p> <ul style="list-style-type: none"> • Stroke • Percentage of opening and closing action • Speed, in opening and closing action • Force, in opening and closing action • Real close position of the window • Closing position tolerance • Soft stop length and speed 	<p>Feedback</p> <ul style="list-style-type: none"> • Full opening or closing • Percentage of opening and position of the chain • Current setting of parameters and scenarios • Location in the building and address in the network • Statistics • Command state • Eventual Failures 	<p>Scenarios</p> <ul style="list-style-type: none"> • Reduction of entrapment risk • Speed synchronization for multiple actuators on the same window • “Soft” closing of the window • Quiet operation in case of ventilation and full speed and force for Smoke and Heat Extraction • Local control of the window even with centralized management
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	QUASAR BMSline	VEGA BMSline	NANO BMSline
VOLTAGE SUPPLY	24 Vdc ± 10%	24 Vdc ± 10%	24 Vdc ± 10%
ACCESS FOR SETUP	2x 3 m cable	2x 3 m cable	by cable
ELECTRIC CONNECTION & BUS COMMUNICATION LINE (max 6 wires, cable not supplied)	<p>3 m cable: 2 wires voltage supply 2 wires Synchro/E-Lock 3 wires local switch</p> <p>3 m cable: 3 wires Modbus RTU 2 wires smoke ventilation</p>	<p>3 m cable: 2 wires voltage supply 2 wires Synchro/E-Lock 3 wires local switch</p> <p>3 m cable: 3 wires Modbus RTU 2 wires smoke ventilation</p>	<p>2 wires voltage supply 2 wires Synchro/E-Lock 2 wires Modbus RTU 2 wires smoke ventilation</p>
OPERATION	programmable	programmable	programmable
STROKE	programmable up to 500 mm	programmable up to 300 mm	programmable
FORCE (push or pull action)	programmable up to 300 N	programmable up to 300 N	programmable up to 400 N
SPEED (opening or closing action)	programmable up to 15 mm/s	programmable up to 9 mm/s	programmable up to 14 mm/s
CURRENT ABSORPTION (max load)	0,9 A	0,7 A	1,2 A
PARALLEL CONNECTION	YES	YES	YES
LIMIT STOP	Electronic	Electronic	Electronic
SAFETY STOP	Electronic	Electronic	Electronic
FEEDBACK SIGNAL	All features via BUS line	All features via BUS line	All features via BUS line
PROTECTION CLASS	IP 30	IP30	IP40

PART No.	QUASAR BMSline	VEGA BMSline
GREY RAL 9006	48035J	41579Z
BLACK RAL 9005	48036K	41580A
WHITE RAL 9010	48037L	41581B

PART No.	NANO BMSline					
STROKE	200 mm	300 mm	400 mm	500 mm	600 mm	800 mm
GREY RAL 9006	41998B	42001E	42004H	42007K	42010N	42013Q
BLACK RAL 9005	41999C	42002F	42005I	42008L	42011O	42014R
WHITE RAL 9010	42000D	42003G	42006J	42009M	42012P	42015S

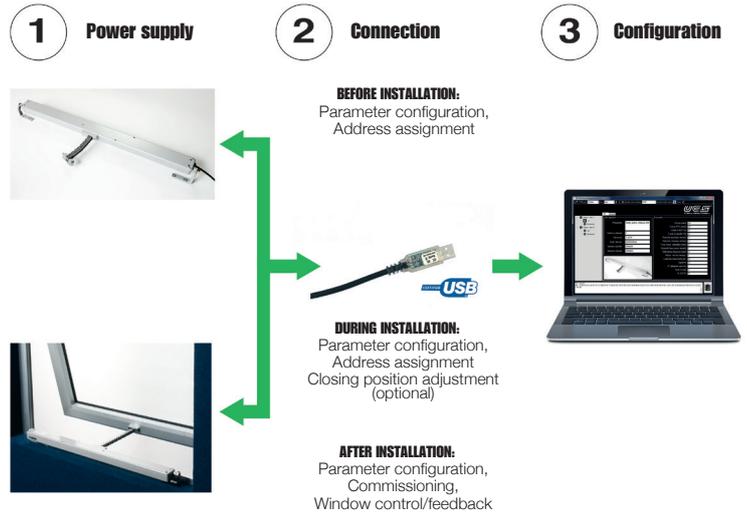
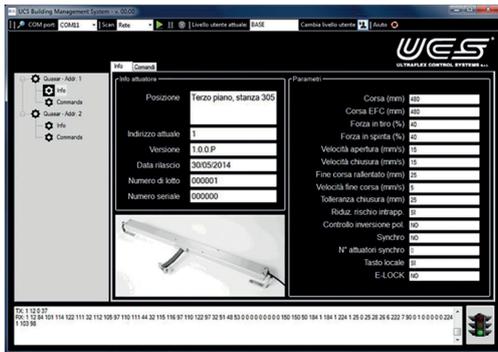
BMSline programmable versions of following actuators are available on request:
TWIN QUASAR - QUASAR L 24 Vdc (600 - 750 - 1000 mm) - E-LOCK, see page E-LOCK - NANO, see page NANO

BMSline programmable and addressable chain actuators - Accessories

BMSline Setup Kit Part No. 41587H

User friendly Configuration Software including cable for fast connection between PC (USB connector) and actuators

- Parameters, Scenarios, Setup, Network, Address Assignment
- Actuator Control and Closing Position Adjustment
- Information feedback and diagnostic
- Statistic
- Setup data recording



The UCS BMSline Configuration Software works on any computer with Windows XP and following versions

On request, actuators can be configured in the factory, according to the customer requirements



The BMSline Gateway allows the translation of BMSline communication BUS protocol (Modbus RTU) to other standard BUS languages (BACnet, KNX, Lonworks ...).

The gateway behaves like a Modbus master towards the actuators, cyclically polling them and making the information accessible to the target technology (other languages). The process also works in the reverse direction: when the data points of the target technology are changed, the gateway will automatically update the corresponding Modbus registers of the actuators concerned.

The gateway provides a web-type interface that allow to perform configuration and diagnostic operations from any machine provided with network interface and a web browser.
The standards currently supported are:

- BACnet MS/TP - BACnet on RS-485 serial line
- BACnet/IP - BACnet on Ethernet/IP
- KNX TP1 - Konnex protocol on proprietary serial line
- KNXnet/IP - Konnex protocol on Ethernet/IP
- LON TP/FT-10 - CEA-709 standard protocol on TP/FT-10 type interface
- LON/IP - CEA-852 standard protocol on Ethernet/IP

UCS supplies the gateway already equipped with four possible configurations corresponding to 4 different product codes:



- GATEWAY MODBUS RTU - LON (both LON TP/FT-10 and LON/IP) – Part No. 41648Q
- GATEWAY MODBUS RTU - BACnet (both BACnet MS/TP and BACnet/IP) – Part No. 41649R
- GATEWAY MODBUS RTU - KNXnet/IP – Part No. 41650S
- GATEWAY MODBUS RTU - KNX TP1 – Part No. 41651T
- (To be used with Interface module KNX TP1 - Part No. 41652U)

These devices allow interfacing up to 30 BMSline actuators with Building Management Systems based on protocols other than Modbus RTU



GATEWAY MODBUS RTU – BACnet/IP – Part No. 41888V

This device allows interfacing up to 20 BMSline actuators with Building Management systems based on BACnet/IP



K107A Modbus repeater for RS-485 transmission – Part No. 41624S

The K107A Modbus repeater for RS-485 transmission allows to:

- Extend the network maximum length
- Increase the actuator number on the same line (install one repeater for every group of 30 actuators)
- Create network branches

Moreover:

- The LED lights on the repeater supply a first diagnostic test regarding the network communication state.
- The repeater divides the network in two sections, protecting from communication disturbance, or voltage dispersion that may damage the network.

NOTE: it is always advisable to use a repeater between the master (PC, Server, Gateway etc.) and the remaining part of the network.