



Techknave

M-Bus SWITCH TKN2101

with Powered
shut off valves



FEATURES

- ◆ MBus Switch unit with relay contact (NO / NC) suitable for Shutoff valve of SPST and SPDT type (2 wire / 3 wire powered actuators)
- ◆ External powered valve 230VAC controlled through MBus switch
- ◆ Valve Sizes – DN15 to DN200
- ◆ Complaint with all MBus Masters
- ◆ Industrial Grade (PN16, IP66)
- ◆ Real time valve status monitoring
- ◆ Valve control (ON / OFF commands via MBus)
- ◆ Optional digital input for pulse signals (Gas meter readings)
- ◆ Extensive cloud base / ON Premise application (UBILL VCM)
- ◆ Suitable for Potable / Chilled / Hot water (0 to 100 deg C)
- ◆ Compatible and operated through IBM billing software.



COMPATIBLE WITH



INTRODUCTION

Techknave MBus switch TKN2101 is MBus slave relay output module with potential free NO/NC contact suitable to operate powered 2 way Shut off valve. The TKN 2101 MBus switch has on-board terminals for MBus loop & Relay contacts. The Switch unit has internal bistable relay used for opening and closing the valve through MBus control telegram or via manual ON/OFF switch inside the module. MBus switch along with powered valves shall be used in Sub-metering solutions, building management Applications, Facility management companies for remote disconnection of water flow. Our Techknave MBus switch compatible with any standard 2 wire / 3-wire motorized shut off valves with sizes vary from DN15 to DN200.

Few validated working models.

- ◆ HONEYWELL VC6013/ VC4013 series 2-way shutoff valve for small pipe sizes
- ◆ HONEYWELL V4ABFW butterfly valves for big pipe sizes
- ◆ ISMACONTROLLI MVSx16 Ball valve Actuators
- ◆ SCHNEIDER VF208 Butterfly valves with MF20/MF40 actuators
- ◆ NEPTRONIC 2 way contoured port valves

M-Bus Switch Controller Unit SPECIFICATION

Product ID	TKN2101	Communication Technology	Wired M-Bus
Power supply for CU	Lithium battery 3.6V (replaceable)	Baud rate	300 and 2400 bit/s
Enclosure	ABS, IP66	Working Temperature	Max 60 deg C
Output relay contact	Max 250VAC, 5A	Digital Inputs	Optional 2 inputs for Leak detection signal, Flow pulse counting, alarms...
Tamper	Enclosure Open status alert (Optional)	M-Bus valve control software	UBILL VCM / IBM
Terminals (Screw connectors)	M-Bus – 2 wires Relay Contact 3 wires (NO, NC, Common)	M-Bus standard	EN 13757
Data read	OPEN / CLOSE status, Battery level, enclosure tampering, last controlled time, Control type.		
Data Write	OPEN / CLOSE command, set primary address		
Manual Override	Press buttons for local OPEN / CLOSE (Located inside the CU optional)		

Order Code

Techknave M-Bus switch: TKN2101

Size

DN15 to DN200

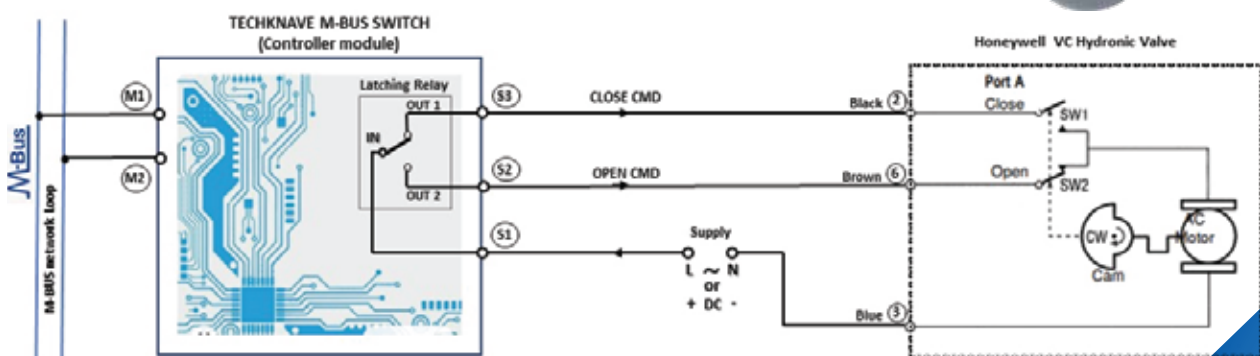
ORDER ID

TKN2101 + Vendor specific valve

For example, DN25 Valve order code for Techknave M-Bus switch with Honeywell VC 6013 DN25 valve of 220VAC actuator TKN 2101 + VC6013AP1000T

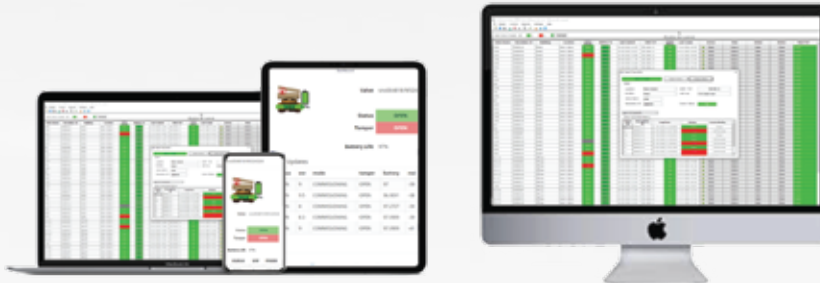
Customers can buy only M-Bus Switch module from us and free to choose their 2-way shut off valves.

CONNECTION DETAILS



Wiring Diagram – 3 wire solenoid ON / OFF valves

SOFTWARE – UBILL VALVE CONTROL MANAGEMENT (VCM)



DESKTOP VERSION

BROWSER VERSION

APPLICATIONS

- ◆ **SUB METERING** (DISTRICT COOLING / BILLING COMPANIES) Techknave MBus smart valve helps District cooling / Sub metering billing companies / Facility management companies to shutoff chilled water supply in sub-metering side water distribution. Remote shutoff command shall be issued from command center remotely in case of non-payment or leak detection.
- ◆ **WATER MUNICIPALITIES** – Techknave Mbus Smart valve help water distribution companies to optimize their network by remotely closing pipes before water reaching users. A smart management of Open/ close operations can be performed automatically from command center.
- ◆ **BUILDING AUTOMATION:** Techknave M-bus shutoff valves are used in building automation systems to control the flow of water in heating, ventilation, and air conditioning (HVAC) systems. They help regulate temperature and humidity levels in buildings, which can improve energy efficiency and occupant comfort.
- ◆ **Lighting Controls:** Techknave M-Bus switch module shall be used as MBus Digital output signal to operate the lighting control system over M-Bus networking.



Technology Partner

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