

**Application**

The Belimo PC-Tool software is a graphical user interface which allows the user to set, modify and read actuator characteristics.

The Belimo PC-Tool is an MFT support tool which is a practical solution for Controls distributors and Installation contractors.

**The Controls Distributor can:**

- Reduce inventory levels
- Optimize the flexible MFT product inventory
- Quickly program an MFT actuator
- Provide MFT custom retrofit solutions – same day
- Re-label the actuator with correct parameters

**The Installation contractor or field technician can:**

- Work with PCs having a dedicated hand held tool
- Connect and program actuators quickly on an as needed basis
- Get systems up and running faster for service replacement applications
- Optimize flexibility of MFT product inventory for replacement applications
- Program actuators to your company standard configuration

**Required Accessory**

**ZIP-RS232 US** (required)

OR

**ZIP-USB-MP** (required)

AND

**ZK Cable** depending upon application (required)

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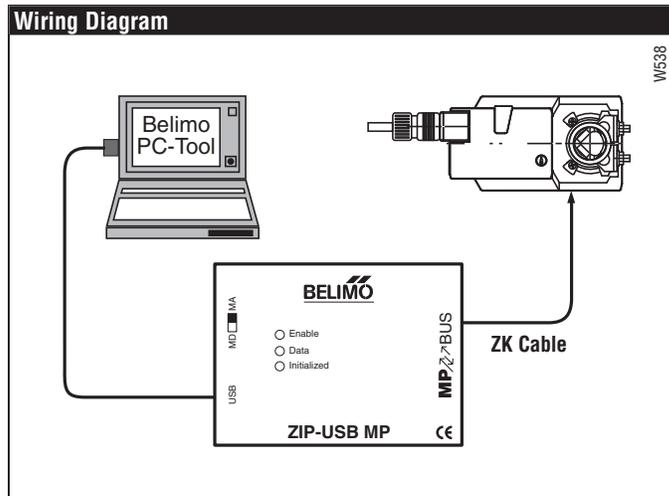
Technical Data	MFT-P US
Software version	3.X
Compatible Operating System	For Windows 2000/XP/Vista
System requirements	10 MB free hard disk space
Modules	MFT-PC
Language	English / German
CD contents	Set-up.exe (Installation tool) Software documentation (requires Adobe Acrobat Reader) Adobe Acrobat Reader
License	Not required

# ZIP-USB-MP US

For interfacing PC with...MFT US type actuators



Technical Data		ZIP-USB-MP US
Power Supply		AC 24 V 50/60 Hz, DC 24V
Nominal voltage range		AC 19.2...28.8 V, DC 21.6...28.8 V
Driver		For Windows 2000, XP or Vista (download at <a href="http://www.belimo.com">www.belimo.com</a> , call for link)
Connections	USB	USB 2.0, 1 m cable
	MP device	RJ11-socket
Electrical Safety		III safety extra-low voltage
Degree of protection		IP 20
Ambient temperature		0 to 122 °F
Storage temperature		-40 to 176 °F
Weight		<1.0 lb



## Application

The ZIP-USB-MP is used with the Belimo PC-Tool software (MFT-P US) to interface all Multifunctional (...MFT US) type actuators via a USB port. Monitoring and parameterization of one MFT actuator is enabled.

The ZIP-USB-MP can also be used to interface the MFT actuators functionality via the UK24LON.

## Connection and Operation

### Power Supply

Power for the ZIP-USB-MP is supplied via the connected MFT actuator. The Actuator needs to be powered up in order for the unit to work.

### Connection and Indication

A PC is connected through its USB port and the associated ZK cable.

**NOTE:** A special driver found on the Belimo website is needed for the ZIP-USB-MP US to operate. Contact factory for details.

### Indication (See Accessories)

LED's show the status of the interface and the flow of data between the ZIP-USB MP and the MFT actuator/VAV controller.

#### LED *Initialized*

Data is transmitted from ZIP-USB-MP to actuator.

#### LED *Data*

- Data transmitted from actuator to ZIP-USB-MP.
- LED flashes synchronously when initialized if an actuator does not respond.

#### LED *Enable*

Steady light when the interface is active.

## Accessories

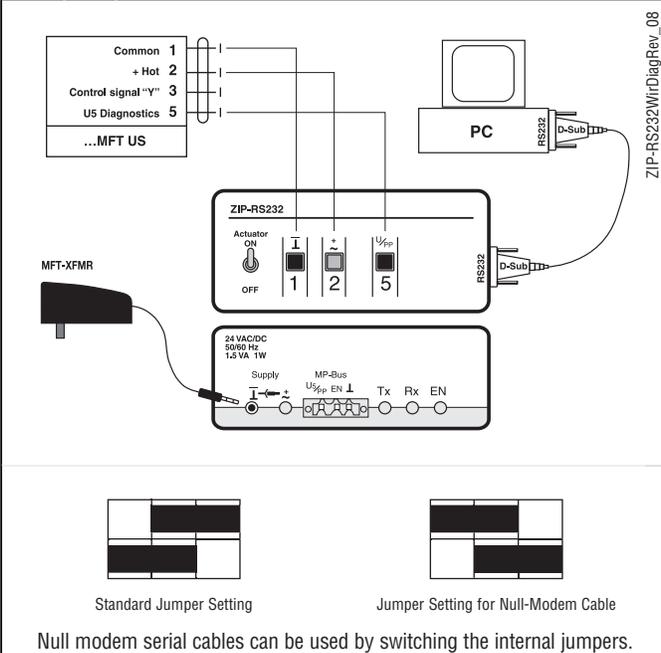
ZK1-GEN	Cable 16 ft, RJ11-plug
ZK2-GEN	Cable 16 ft, RJ11-plug, open wires
ZK3-GEN	Cable 16 ft, diagnostic socket, plug
ZK6-GEN	Use with SY actuator
ZKS-MP	Use with UK24LON US gateway
ZK1-VAV	Use with VAV actuators



ZIP-RS232

Technical data		ZIP-RS232 US
Supply voltage		24 VAC; Class II power supply
Power consumption		1 W / 1.5 VA (without actuator)
Electrical protection		MFT-XFMR is internally protected and automatically resets
Connections	Power supply	Stereo connector
	Actuator	Manual push button terminals
	MP-Bus	Orange male connector, ZKS-MP (Optional)
	RS232	PC cable, sub-D, 9 pin, female/female, included
Ambient temperature		0° to 122°F
Storage temperature		-40°F to 176°F
Electrical safety		Class III
Weight		<1.0 lb. (without actuator)

### Wiring Diagram



### Application

The ZIP-RS232 is used with the Belimo PC-Tool software (MFT-P US) to interface all Multifunctional (...MFT US) type actuators via an RS232 port. Monitoring and parameterization of one MFT actuator is enabled.

The ZIP-RS232 can also be used to interface the MFT actuators functionality via the UK24LON.

### Connection and Operation

#### Wiring Terminals

The ...MFT US actuator wires are connected to the terminals and correspond to the conductor wire designations. Some actuators are color coded and do not have numbered conductors. The following indications should be used:

- 1 = Black
- 2 = Red
- 5 = Orange (non-spring, TF)
- Green (LF)
- White (AF, NF)

#### Switch

The Actuator On/Off switch on the ZIP-RS232 applies 24 VAC power to the connected actuator. The ZIP-RS232 is powered when the MFT-XFMR is plugged into a power receptacle.

#### RS232 Connector

The ZIP-RS232 is connected via this RS232 connector to the PC with a standard female-female 9-pin sub-D cable, provided.

#### Power Supply

The MFT-XFMR accessory transformer is connected to the unit, and supplies 24 VAC power to the ZIP-RS232 and up to one connected actuator.

#### Power LED

A Green LED is lit when 24 VAC is supplied.

#### MP-Bus Connector

This connection is used only with the UK24LON or another MP-Master device.

#### Terminal Designations

U/PP: Data communications lead EN: Enabling signal for UK24LON

#### MP-Bus LED's

**Tx:** LED flashes when data flows from ZIP-RS232 to the ...MFT US actuator.

**Rx:** LED flashes when data flows from ...MFT US actuator to ZIP-RS232

**EN:** LED is lit constantly when RS232 device is connected.  
(E.g. PC is connected to ZIP-RS232)

### Accessories

**MFT-XFMR** Power transformer

**ZKS-MP** MP-bus cable for use with UK24LON

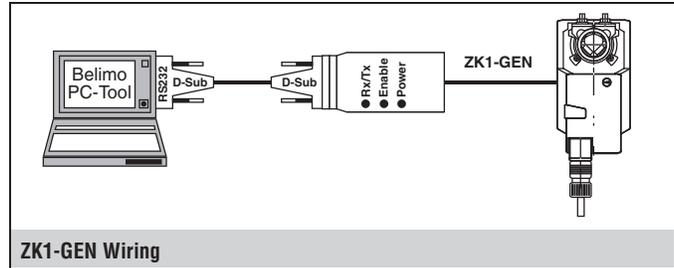
# MFT Cables

For Interfacing PC with...MFT US Type Actuators



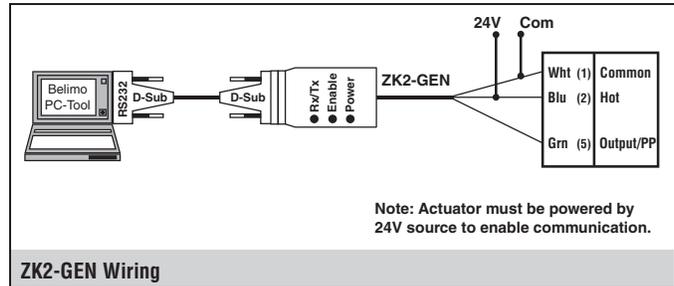
## ZK1-GEN

Cable for use with ZIP USB-MP or ZIP-RS232 to connect new generation non-spring return actuators via diagnostic/programming socket



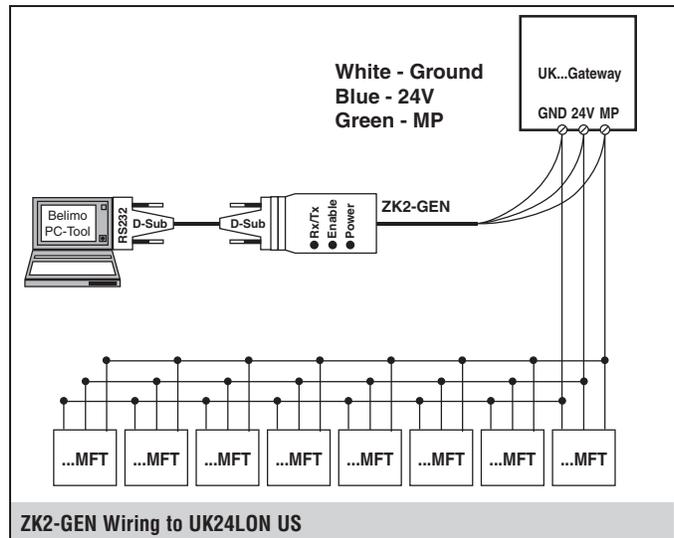
## ZK2-GEN

Cable to connect ZIP-RS232 with spring and non-spring return actuators not equipped with diagnostic/programming socket



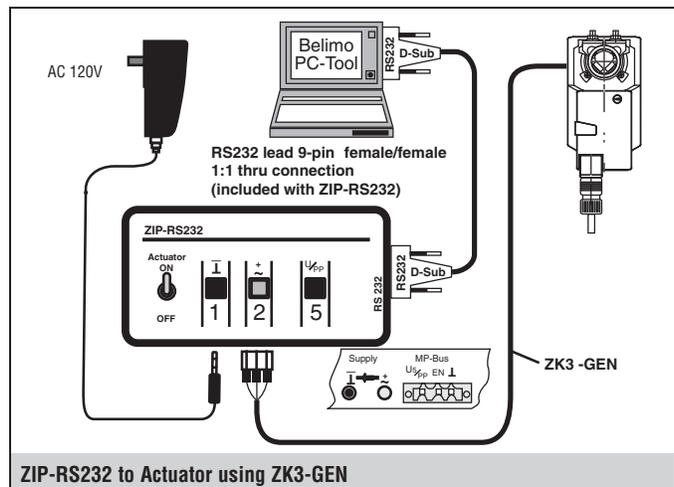
## ZK3-GEN

Cable to connect ZIP-RS232 or UK24LON US to new generation non-spring return actuator via diagnostic/programming socket



## ZK6-GEN

Cable to connect to ZIP USB-MP



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