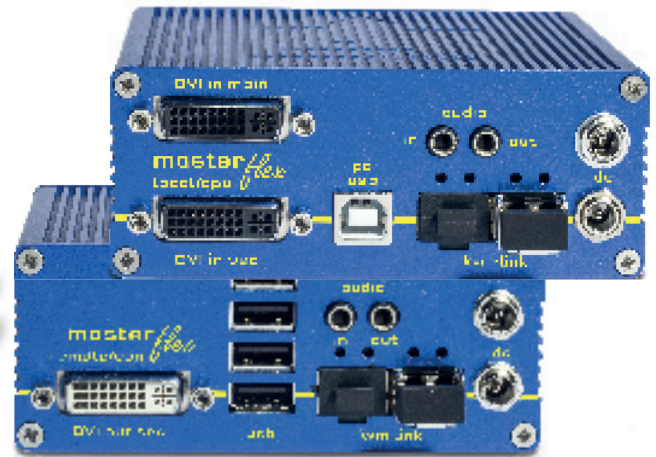


FLEXline master flex



Single/ Fiber redundant FULL HD KVM EXTENDER OVER IP

KVM-TEC Extender over IP in DVI, DVI-D,
KVM Extender USB in CAT x

Masterflex single redundant ist a high optimized KVM Extender over IP for distances up to 160km with a resolution up to 1920x1200@60Hz and is available in fiber. Masterflex Extender convince with a ultraflat housing - 4 single Units in 1 HE (8 Videostreams), have embedded sound are compatible with standard network components
Videosharing, USB Sharing, Multihead

... Masterflex single Fiber

- DVI-D/ USB2.0 Extender over IP , redundant
- single redundant in Fiber
- max resolution
- 1920 x 1200 @60 Hz
- max distance 160km
- 4 single Masterflex KVM Extender in 1HE
- Sound embedded

- Full HD Videos in real time
- USB transmission rate max 480Mbit/s
- only one cable for USB & Video
- DVI Extension without loss of quality
- Feature - freeze last image
- Local/CPU -Remote/CON Monitor Output
- point to point - Matrix Switching System with Switch (Layer3)
- Switching Manager Basic Version included

USB 2.0 in house development

The in-house developed USB 2.0 implementation supports typical USB devices such as touch screens, sound modules, printers and similar components. In addition, support for storage devices such as thumb drives and USB HDDs can be enabled or disabled as needed, adding another layer of security. And of course, keyboards and mice are also supported.

Bandwidth reduction

Masterflex enables transmission bandwidth to be limited in nine fixed stages. This enables controlled network utilization by reducing the operating power. Depending on the application, this can even be done without any noticeable effects (e.g. static image monitoring).

Infrastructure

Masterflex Local and Remote Units have a slim form factor. They fit easily under a desk and up to four units can be mounted in a 19" rack. The single-sided orientation of the interfaces allows for easy access during setup and maintenance. Flexline has a fanless design for quiet and ergonomic workspaces.



www.kvm-development.com

Full HD
OVER IP



master
Part No.: 6013

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Upgrades opt

- USB Memory
- Interlaced Mode
- Sound analog
- Analog VGA - transmitted as DVI

Matrix Switching System

To interconnect multiple Masterflex Extender Locals and Remotes via an L3 network switch, a central switching manager is required to create a multipoint matrix switching system with access control and other administrative and operational functions.

Compatibility

Masterflex extenders are compatible with ECOsmart, all extenders of the Flexline series. In matrix setups, they can be combined with media4Kconnect and Scalableline extenders to form a homogeneous system managed by the Switching Manager.

Audio

Masterflex KVM Extender offers two options for transmitting stereo audio signals. The video embedded 2-channel - L-PCM standard and unbalanced analog bi-directional audio via 3.5mm jack sockets for line input and speakers.

Latency (encoding/decoding)
<1,38 ms

For each meter of transmission additional 5ns of signal propagation need to be added. 200km result in 1ms accordingly. Latencies caused by network switch topologies vary by type and manufacturer and overall configuration and need to be counted on top!

9-Step bandwidth fix reduction (1: no – 9: max reduction)

Image Change (Frame to Frame) (%)	average bandwidth [Mbit/s] with fix r eduction
5	50
10	100
25	250
50	470
75	950
100	950

With bandwidth reduction the frame rate is reduced.

Via level 5, the color accuracy is additionally the color accuracy is slightly reduced



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Technical Specifications

		MV1-F Local/CPU	MV1-F Remote/CON
Interfaces	Video	1 x DVI in (no HCDP) 1x DVI out	1x DVI-D out
	USB 2.0	1 x USB-B to PC	4 x USB-A (devices)
	Audio	1 x 3,5mm jack (Line In) 1 x 3,5mm jack (Line out)	1 x 3,5mm jack (line in) 1Vpp 1 x 3,5mm lack (headphone) 2 x 10 mW@32Ohm
Video	Signal type	DVI-D	DVI-D
	Resolution (digital)	max. 1920x1200 @ 60Hz	max. 1920x1200 @ 60Hz
	Signal type	DVI-I	
	Resolution (analog) (opt.) Color mode	max. 1920x1200 @ 60Hz 24bit	
Audio	Type	analogue	analogue
	Bandwidth	16bit, 44kHz, 2ch	16 bit, 44kHz, 2ch
USB	Specification	USB 2.0	USB 2.0
	Type	transparent	transparent
	Rate	max. 480 Mbit/s mass storage devices & camera optional	max. 480 Mbit/s mass storage devices & camera optional
Casing	Material	anodized aluminum	anodized aluminum
	Dimension (w x H x D)	108 x 43 x 107,5 mm	108 x 43 x 107,5 mm
	Weight	4.25 x 1.69 x 4,23 inch	4.25 x 1.69 x 4.29 inch
	Shipping weight	295 g / 0.65 lb	295 g/ 0.65 lb
	SET 1895 g /4.17 lb	shipment weight 1005g/2,21 lb	shipment weight 890 g/ 1.96lb
Network Interface		Duplec LC	Duplex LC
Compression Factor		3.5 depending on image content	3.5 depending on image content
Power Supply	Type	wall power supply unit 12 VDC 1A redundant max 35 V barrel connector 2.1mm	wall power supply unit 12 VDC 1A redundant max 35 V barrel connector 2.1mm
Power Input	Operation	6W	6W without USB devices Example: a typical keyboard has a power consumption of 0.2W
Operation environment	Temperature	0 to +45 °C /32 to 113 °F)	0 to +45 °C /32 to 113 °F)
	Humidity	< 80%, non -condensing	< 80%, non- condensing
Storage environment	Temperature	-25 to 80 °C /-13 to 176 F	-25 to 80 °C /-13 to 176 F
	Humidity	< 80%, non condensing	< 80%, non condensing
Cooling		free air convection	free air convection
MTBF		82.820 calculated hours approx. 10 years	82.820 calculated hours approx. 10 years
Conformity		CE, FCC	CE, FCC
Warranty		2 years (5 years optional)	2 years (5 years optional)
Delivery content	Devices	1 x MV-F local (CPU) 1 x wall power supply unit 12V 1A (EU-plug or INT plug)	1 x MV1-F remote (CON) 1 x wall power supply unit 12V 1A (EU-plug or INT plug)
	Power Supply	1 x DVI - DVI cable 1,8m (5.9ft) 1 x USB cable 1,8m (5.9ft)	
	Cables	1 x VGA-DVI cable 1,8m (5.9ft) opt 2 x Audio cable 1,8m (5.9ft) opt	
	SFP Modules	2 x SFP Module Multimode up to 500m/1640ft duplex LC (alternative with Single mode up to 20km/12mi Item Nr 6835	2 x SFP Module Multimode up to 500m/1640ft duplex LC (alternative with Single mode up to 20km/12mi Item Nr 6835
	Mounting	4 x rubber feet	4 x rubber feet
	Manual	Quickinstallation manual download: www.kvm-development.com	



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Part No.: 6013

flex

Part Number & Short Description

Part No.	Short Name	Short description
6013	MV1-F	Masterflex Extender Single Fiber – Set EAN 0798190109169 UPC 051497112943
6013L	MV1-FL	Masterflex Extender Single Fiber –Local Unit /CPU EAN 0798190109176 UPC 051497112950
6013R	MV1-FR	Masterflex Extender Single Fiber –Remote Unit /CON EAN 0798190109183 UPC 051497112998
6041	MV-SO	MASTERflex sound upgrade EAN 0798190109220 UPC 051497113001
6042	MV-VGA	Masterflex analog VGA upgrade EAN 0798190109237 UPC 051497113018
6043	MV-MO	MASTERflex USB memory upgrade EAN 0798190109244 UPC 051497113025
9003	GV5JU	Warranty extension flexibel per UNIT
ADD-ONS 6231	UMK-FLEX	Rack Mounting Kit for under the table for FLEXline EAN 0798190109466 UPC 051497113247
6232	RMK-FLEX-F	Rack Mounting Kit with front panel for FLEXline EAN 0798190109473 UPC 051497113254
6233	RMK-FLEX-FN	Rack Mounting Kit with front panel and Power supply EAN 0798190109480 UPC 051497113261
6234	RMK-FLEX	Rack Mounting Kit with front panel and redundand Power supply for FLEXline EAN 0798190109503 UPC 051497113285
6235	DINMK-FLEX	Din Rail Mounting for FLEXline EAN 0798190109510 UPC 051497113292
6236	VH -FLEX	Vesa Mounting Kit for Flexline EAN 0798190109527 UPC 051497113308
6831	AL-MX1-F-SM	alternativ Single Mode Module up to 20 km/12 mi
7070	TNT40	Din Rail Power Supply DN40-12
7080	TNT100	Din Rail Power Supply DN100-12



point to point



switching system

KVM Development & Support GmbH
Steinbruchgasse 34
2500 Baden
Austria
phone:+43 2253 81912
www.kvm-development.com