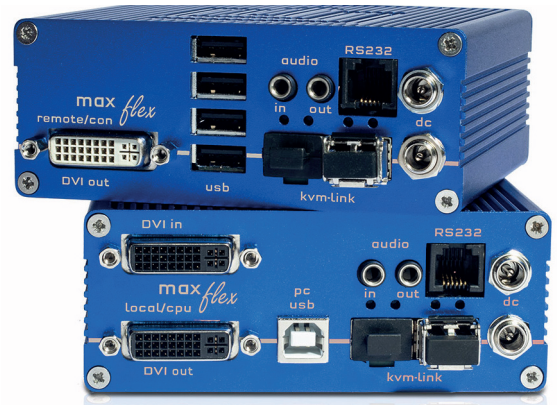


FLEXLINE

Industry *flex*

Single/Fiber FULL HD
KVM EXTENDER OVER IP
redundant



KVM Extender over IP in single DVI, DVI-D,
KVM Extender USB in Fiber

Industryflex Single Redundant is a highly optimized KVM extender over IP for distances of up to 160 km at a resolution of 1920x1200@60Hz and is available in a fiber version. Industryflex extenders feature an ultra-slim housing—4 dual units in 1U (8 video streams), have embedded audio, and are compatible with standard network components. Video sharing, USB sharing, multi-head.

... Industryflex single redundant/ Fiber

- DVI-D/ USB2.0 Extender over IP
- max Resolution 1920 x 1200 @60 Hz
- max distance 150m
- 4 dual Industryflex KVM Extender in 1U
- Sound embedded
- Full HD Videos in real time
- RS232
- 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)
- PoE Version opt (PoE high-performance network switch)
- Switching Manager basis-version

USB 2.0 in house development

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

Infrastructure

Industryflex local and remote units feature a slim form factor. They fit easily under a desk, and up to four units can be mounted in a 19-inch rack. The single-sided interface layout allows for easy access during setup and maintenance. FLEXline is fanless, making it silent and ideal for quiet, ergonomic work environments.

Bandwidth reduction

Industryflex allows you to limit the transmission bandwidth in nine fixed steps. This enables controlled network utilization by reducing operating power. Depending on the application, this can even be done without any noticeable impact (e.g., static image monitoring).

Industryflex for high temperatures

Suitable for high temperatures up to 55 degrees Celsius and indestructible flash memory.

KVM Development &
Support

over
IP

www.kvm-development.com

Full HD
over IP

Industry *flex*

Part No.: 6016i

Matrix Switching System

To connect multiple Industryflex 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

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

Audio and RS232

To connect multiple Industryflex 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.

Mouse glide & Switch

In matrix applications, such as in control rooms, the Mouse, Glide & Switch feature implemented in the MAX ex series enables users with multi-monitor setups connected to multiple sources to control up to 16 monitors using a single keyboard and mouse

Suitable for high temperatures up to 55 °C and indestructible flash memory

Function of the factory partition (program memory) in flash memory: If a power failure occurs during an update, the information in the flash memory can be lost. kvm-tec has taken precautions against this by including a crisis-proofed area in the flash memory that cannot be overwritten and is therefore indestructible. The extender then boots from the crisis-proofed area with the correct information.

latency time (encoding/decoding)
<1,38 ms

For every meter of distance, an additional 5 ns of latency is added.

200 km therefore corresponds to 1 ms.

Latencies resulting from network switch topologies vary depending on the type, manufacturer, and configuration.

Typical transmission bandwidth at 1920 x 1200@60 Hz: 8 BpC

Image modification (Frame to Frame) (%)	Average Bandwidth (Mbit/s)
5	50
10	100
25	250
50	470
75	700
100	950

When bandwidth is reduced, the frame rate is lowered.

At level 5 and above, color accuracy is also slightly reduced.

Technical Specifications

		IND-F Local/CPU	IND-F Remote/CON
Interfaces	Video	1 x DVI in 1 x 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 (Speaker) 2x10mW@320hm
Video	Signal type	DVI-D	DVI-D
	Resolution (digital)	max. 1920x1200 @ 60Hz	max. 1920x1200 @ 60Hz
	Signal type	DVI-I	DVI-I
	Resolution (analog) (opt.)	max. 1920x1200 @ 60Hz	max. 1920x1200 @ 60Hz
Audio	Color mode	24bit	24bit
	Type	analogue / embedded	analogue/embedded
	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
RS 232 interface		transparent	transparent
		up to 115200 baud	up to 115200 baud
		+/-5V,CTS/DTR handshake	+/-5V,CTS/DTR handshake
Casing	Material	anodized aluminum	anodized aluminum
	Dimension (w x H x D)	108 x 43 x 107,5 mm	108 x 43x 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
Power Supply	Type	wall power supply unit 12 VDC 1A redundant max 35V	wall power supply unit 12 VDC 1A redundant max 35V
	Operation	12W	12W without USB devices
Operation environment	Temperature	0 to +55 °C (32 to 131 °F)	0 to +55 °C (32 to 131 °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 IND-F local (CPU)	1 x IND-F remote (CON)
	Power Supply	1 x wall power supply unit 12V 1A (EU-plug or INT plug)	1 x wall power supply unit 12V 1A (EU-plug or INT plug)
	Cables	1 x DVI - DVI cable 1,8m (5.9ft) 1 x USB cable 1,8m (5.9ft)	
	SFP module	2 x SFP module multimode up to 500 m /1640ft duplex LC	2 x SFP module multimode up to 500m /1640ft duplex LC
	Mounting	4 x rubber feet	4 x rubber feet
	Manual	Quickinstallation	

Part Number & Short description

Part No.	Order No.	Short description
6016i	IND-F SET	INDUSTRYFLEXline Extender Single Fiber – Set EAN 0798190109855 UPC 051497113636
6016iL	IND-FL	INDUSTRYFLEXline Extender Single Fiber –Local Unit /CPU EAN 0798190109862 UPC 051497113643
6016iR	IND-FR	INDUSTRYFLEXline Extender Single Fiber –Remote Unit /CON EAN 0798190109879 UPC 051497113650
9003	GV5JU	Warranty extension to 5 years 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
6835	AL MV-F-SM	Alternativ Single Mode Module up to 20km/12mi



point to point



switching system

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