



Intense illumination
Diffuse light & High Homogeneity
Standard connections and fasteners
Available from 100*100mm² to 1500*1500 mm²
Long lifetime and minimal maintenance

Electronics	Connectors	M12 - 4 pins or M12 Power – 4 pins (depending on power consumption)
	Power supply	24V DC
	Illumination mode	Continuous with a AIC (Analog Intensity Control) feature [0-24V] – Analog voltage or Strobe mode
	Power consumption	Related to the dimensions (page 3)
	Cable length	500mm
Optics	Wavelength	Single wavelength (from Blue to IR, white)
Mechanics	Weight	Related to the dimensions
	Thickness	43.2mm (40mm with thin edge option)
	Dimensions	Any multiple of 50mm
	Fastener	Built-in M6 T-nut slot profile
	Material	Device body: Aluminum alloy & ABS; Window: Acrylic
Environment	Working temperature	0°C to 50°C
	IP code	IP50 (IP69K Version: Refer to EFFI-FD-IP69K documentation)

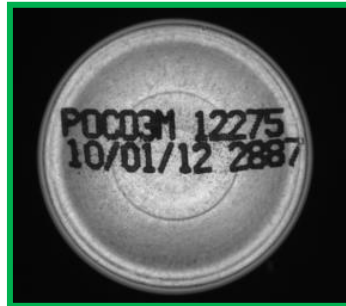
Applications



Direct illumination ❌



EFFI-FD illumination ✅



Part Number



Reference:

EFFI-FD-XXX-YYY-ZZZ-HH-VVVV

XXX: Optical width (mm) & **YYY:** Optical length (mm) ($XXX \leq YYY$)

Dimensions are available for every 50mm steps, from 50mm x 50mm up to 1500mm x 1500mm

ZZZ: Color / Wavelength (nm) (other wavelengths available on request)

• Blue 465

• Green 525

• Red 625

• IR 850

○ White 000
(T° = 5700 K ± 700 K)

HH: Hole Diameter (mm) (if not specified, default 39mm)

∅ 39mm

D50 50mm

D58 58mm

D65 65mm

VVVV: Connector Version

According to the electrical power, there one or several connectors. They can be M12 or M12P. Refer to the electrical power consumption table (page 3) to know the power of the product according to the dimensions.

Electrical Power	Amount & type of connectors	M12 Male connector	M12P Male connector
≤ 70 W	1X M12	VVVV = XM12 With X = number of connectors	VVVV = XM12P With X = number of connectors
75W - 145W	2X M12 OR 1X M12 Power		
150W - 270W	3X M12 OR 1X M12 Power		
275W - 560W	2X M12 Power		
> 560W	Specific configuration. Contact EFFILUX for more information		

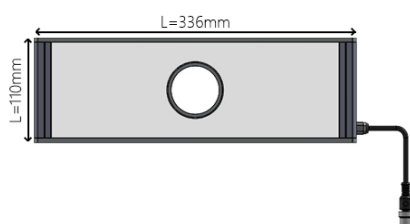
Option: Thin Edges

Advantages: Less bulky / More easily integrated / Dust accumulation prevented (smooth walls)

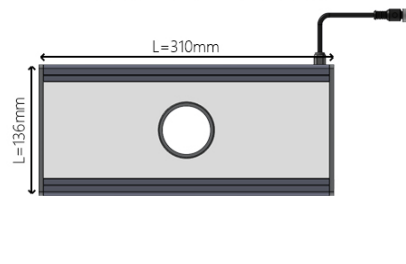
If **thin edges**: add **T** after the dimension which must be reduced (Contact EFFILUX for any CAD request)

Part number: EFFI-FD-XXX-YYY-ZZZ-HH-VVVV or EFFI-FD-XXXT-YYY-ZZZ-HH-VVVV

Exemple 1 : EFFI-FD-100-200T



Exemple 2 : EFFI-FD-100T-200



Option: Polarized Version (Not available for IR) (maximum size: 400-YYY)

The polarizer is used to highlight solder, hole or differences in thickness in transparent materials.

For an integrated polarizer, add **-POL** in the part number: EFFI-FD-XXX-YYY-ZZZ-POL-HH-VVVV

Effilux also propose a polarizer kit accessory, to install the polarizer directly on top of the product: **EFFO-FD-POL-XXX-YYY-KIT**

Option: Power version (x3)

If Power version (only available in white), add **-S150** at the end of the reference. Use with a duty cycle < 30% mandatory.

Part number: EFFI-FD-XXX-YYY-000-S150-HH-VVVV

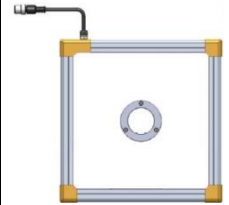
Electronical considerations



Contact arrangement

The EFFI-FD is supplied directly with 24V DC via one or more M12 - 4 pins, or M12 power 4 - pins, depending on the electrical consumption of the product. Attention, the AIC pin must be connected.

Contact arrangement	Number	Color Contact	Designation
<p>M12 Male connector M12 Power Male connector</p> <p>Connector depends on electrical power consumption</p>	1	Brown	+24V
	2	White	n.a.
	3	Blue	GND
	4	Black	AIC: Analog Control of Intensity. Max 24V DC



Length M12 cable (Cable gland → Connector) : 500mm

For an EFFI-FD with multiple connectors, the only AIC signal taken into account is that of the connector closest to the angle of the product.

Power supply

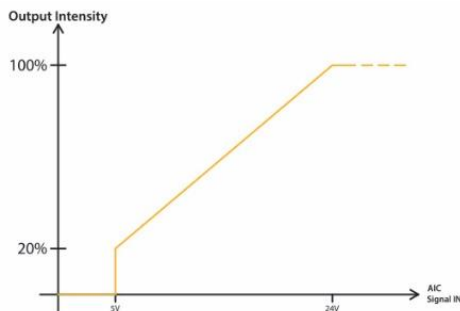
Electrical Power consumption (W) for standard EFFI-FD

		Optical length (mm)																				
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1500
Optical width (mm)	50	x	5	10	10	10	15	15	15	20	20	20	25	25	25	30	30	30	35	35	35	55
	100	5	10	15	15	20	25	25	30	35	35	40	45	45	50	55	55	60	65	65	70	105
	150	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	155
	200	10	15	25	30	35	45	50	55	65	70	80	85	90	100	105	110	120	125	130	140	210
	250	10	20	30	35	45	55	60	70	80	90	95	105	115	120	130	140	150	155	165	175	260
	300	15	25	35	45	55	65	75	85	95	105	115	125	135	145	155	165	175	185	195	210	310
	350	15	25	40	50	60	75	85	100	110	120	135	145	160	170	180	195	205	220	230	240	360
	400	15	30	45	55	70	85	100	110	125	140	155	165	180	195	210	220	235	250	260	275	415
	450	20	35	50	65	80	95	110	125	140	155	170	185	205	220	235	250	265	280	295	310	465
	500	20	35	55	70	90	105	120	140	155	175	190	210	225	240	260	275	295	310	325	345	515
	550	20	40	60	80	95	115	135	155	170	190	210	230	245	265	285	305	320	340	360	380	565
	600	25	45	65	85	105	125	145	165	185	210	230	250	270	290	310	330	350	370	390	415	620
	650	25	45	70	90	115	135	160	180	205	225	245	270	290	315	335	360	380	405	425	445	670
	700	25	50	75	100	120	145	170	195	220	240	265	290	315	340	360	385	410	435	455	480	720
	750	30	55	80	105	130	155	180	210	235	260	285	310	335	360	385	415	440	465	490	515	770
800	30	55	85	110	140	165	195	220	250	275	305	330	360	385	415	440	470	495	520	550	825	
850	30	60	90	120	150	175	205	235	265	295	320	350	380	410	440	470	495	525	555	585	875	
900	35	65	95	125	155	185	220	250	280	310	340	370	405	435	465	495	525	555	585	620	925	
950	35	65	100	130	165	195	230	260	295	325	360	390	425	455	490	520	555	585	620	650	975	
1000	35	70	105	140	175	210	240	275	310	345	380	415	445	480	515	550	585	620	650	685	1030	
1500	55	105	155	210	260	310	360	415	465	515	565	620	670	720	770	825	875	925	975	1030	1540	

For the consumption (W) of the EFFI-FD with **power option** (EFFI-FD-XXX-YYY-ZZZ-S150): **Multiply by 3** the values in the array above.

Electrical Power	Corresponding color	Amount & type of connectors
≤70 W		1X M12
75W - 145W		2X M12 OR 1X M12 Power
150W - 270W		3X M12 OR 1X M12 Power
275W - 560W		2X M12 Power
> 560W		Specific configuration. Contact EFFILUX for more information

Dimming control



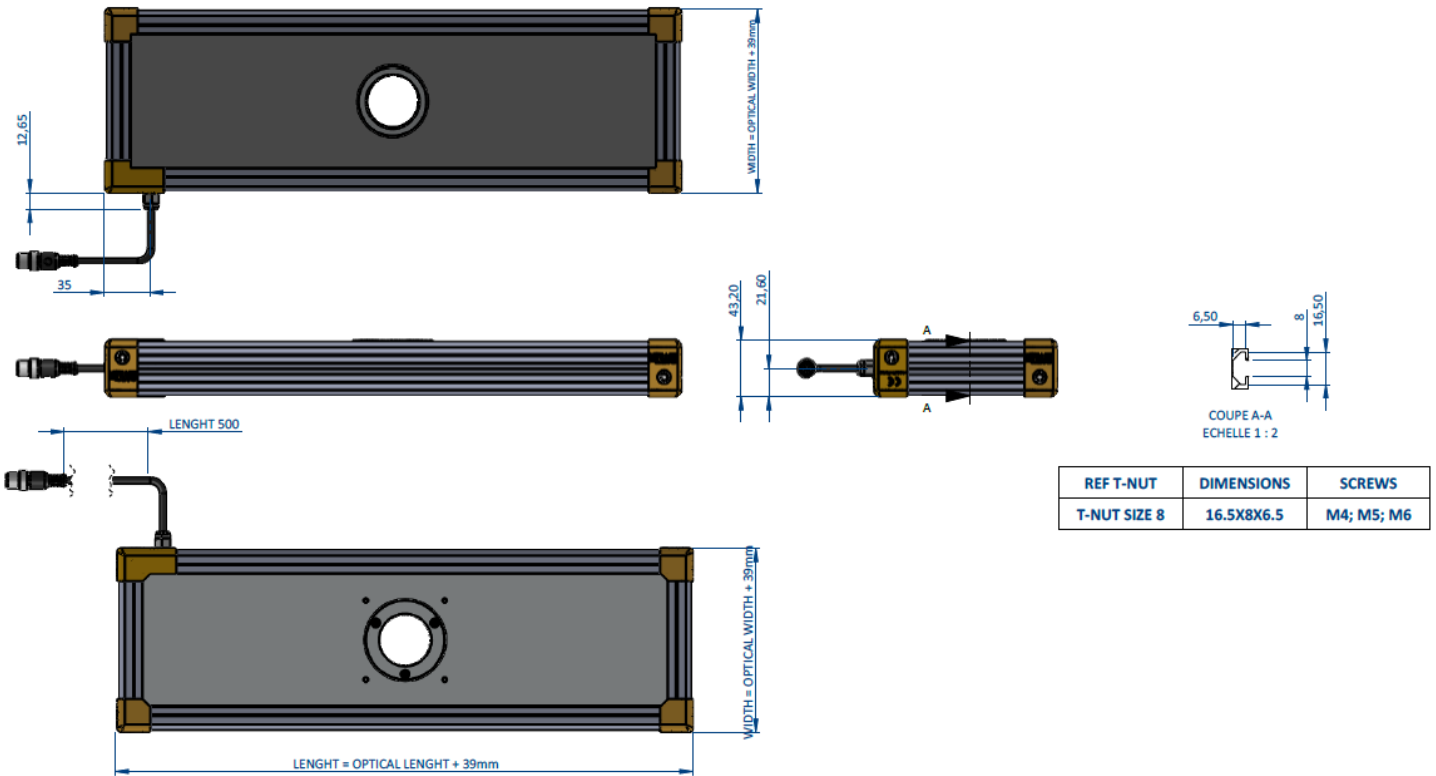
		DIM consumption (mA) for EFFI-BL & EFFI-FD standard										
		Optical length (mm)										
		50	100	150	200	250	300	400	500	750	1000	1500
Optical width (mm)	50	0.3	0.6	0.9	1.2	1.5	1.8	2.4	3	4.5	6	9
	100	0.6	0.3	0.9	0.6	0.9	0.9	1.2	1.5	2.7	3	4.5
	150	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.5	7.2	9	13.5
	200	1.2	1.2	1.8	1.2	2.4	1.8	2.4	3	5.4	6	9
	250	1.5	1.5	2.7	2.4	3.9	3.6	4.8	6	9.9	12	18
	300	3	0.9	2.7	1.8	3.6	2.7	3.6	4.5	8.1	9	13.5
500	3	1.5	4.5	3	6	4.5	6	7.5	13.5	15	22.5	

Other range of control for the AIC (0-5V or 0-10V instead of 0-24V) are available upon request.

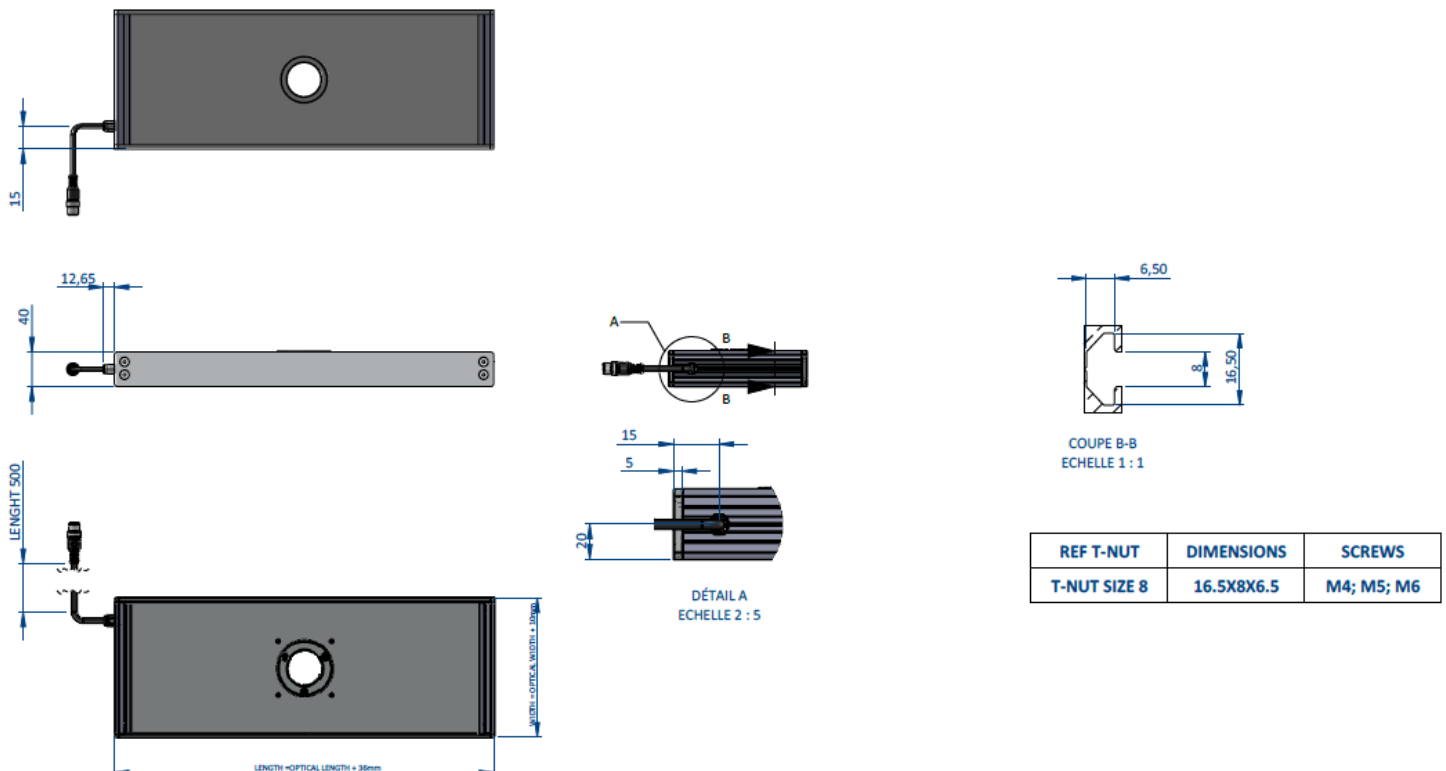
Mechanical considerations (Dimensions in mm)




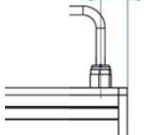
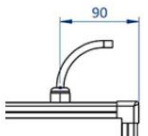

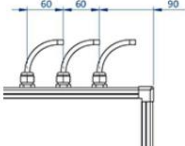
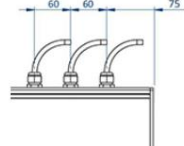
Standard Version



Thin Edges Version



Connector Positions

Number of connectors	Connector type	Connector position (s)	
		EFFI-FD Standard: On the longest side	EFFI-FD Thin Edges: On the side with standard edges
1	M12 Standard	35mm from the edge of the product 	15mm from the edge of the product 
	M12 Power	90mm from the edge of the product 	75mm from the edge of the product 
Many	M12 Standard or M12 Power	First 90mm connector Space between 2 cable glands: 60mm 	First 75mm connector Space between 2 cable glands: 60mm 

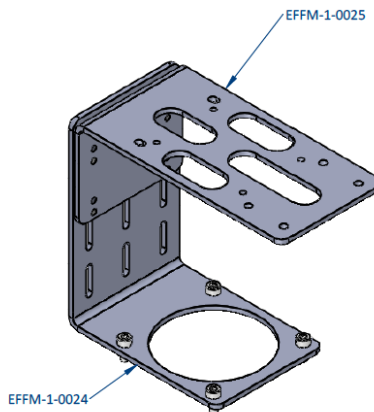
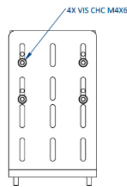
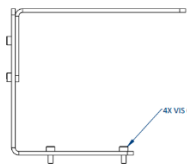
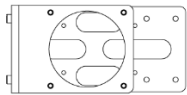
Other position of connector(s) upon request.

Accessories

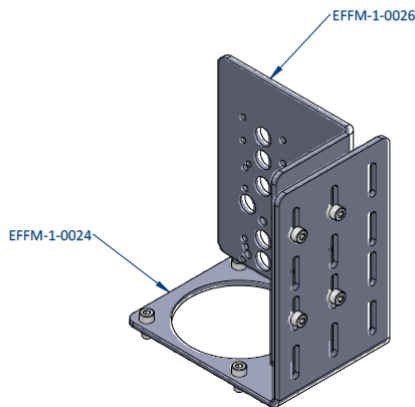
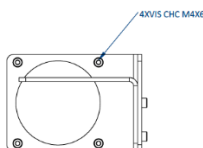
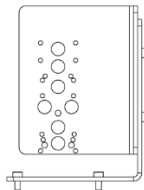
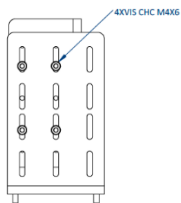


Camera mounting solutions

EFFM-1-HORI : EFFM-1-0024 + EFFM-1-0025

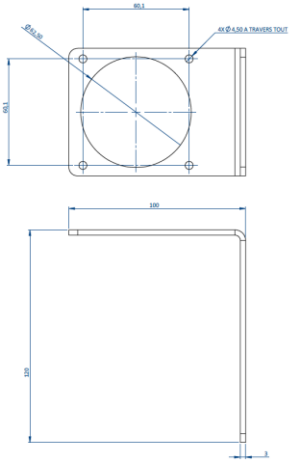


EFFM-1-VERT : EFFM-1-0024 + EFFM-1-0026

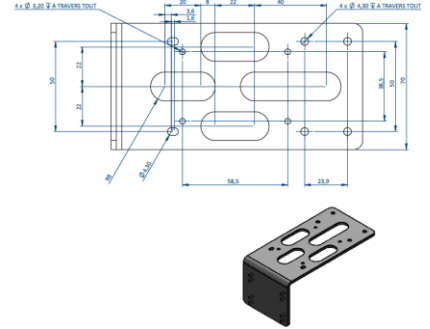
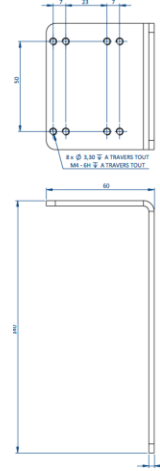


Specific parts

EFFM-1-0024



EFFM-1-0025



EFFM-1-0026

