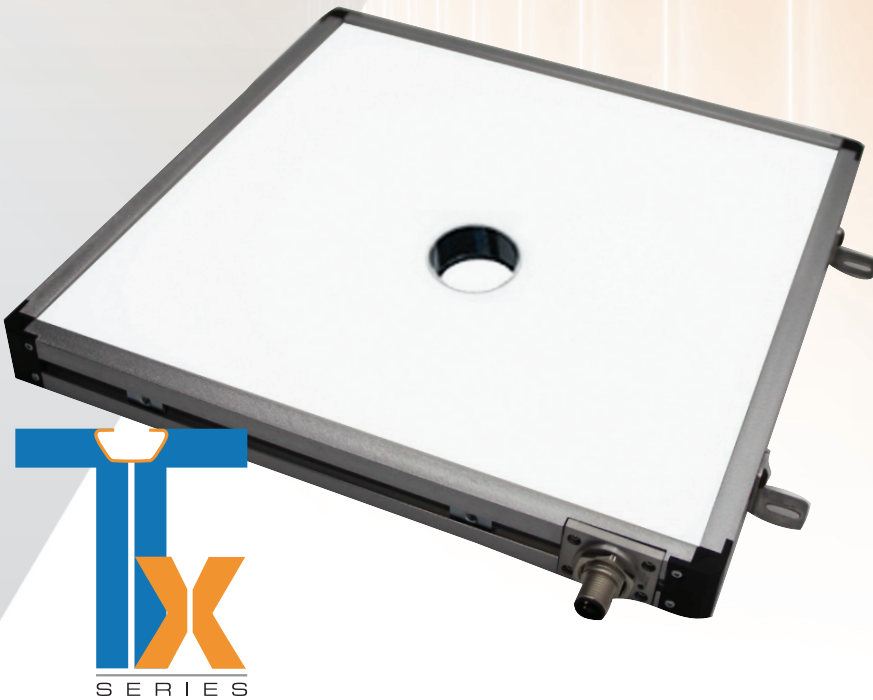


TX Series Flat Dome



Advanced Performance for Machine Vision
Inspection, Measurement, and Gauging

The TX Flat Dome Difference

The TX Series of Flat Domes provides superior performance for the most demanding machine vision applications. Utilizes a bright and highly uniform array of LEDs. State-of-the-art driver technology delivers instant start-up and flicker-free operation and can be used both in DC continuous operation or with 4x Optical, Pulse-Follow Strobe. Optimize your application, maintain flexibility and minimize technical risk with the exceptional results obtained from the TX Series Flat Domes from Metaphase Lighting Technologies.

- ◆ **Best for high-contrast, high-accuracy** inspection, measurement and gauging applications.
- ◆ **New, state-of-the-art driver and microchip** - continuous DC with 4x Optical Strobe all-in-one
- ◆ **Maximum installation flexibility** with 180-degree adjustable T-slot L-brackets (included).
- ◆ **High-uniformity and brightness** provided by a full array of high-density LEDs.
- ◆ **Low-profile housing with 10mm bezel**, ideal for space-limited applications.
- ◆ **Multispectral**: 35 possible combinations by selecting up to four colors.

Features

- Backlighting, diffuse lighting, dome lighting
- 73,000 Lux (263W/m²)
- R, G, B, W, RGB, RGBW, IR850, IR940 (Choose up to 4 Wavelengths, or 2 if using IR940)
- New, advanced microprocessor that allows for DC continuous mode WITH continuous pulse-follow strobe all-in-one all built-in
- 4-side T-slot mounting system with 180 degree adjustable T-slot L-Brackets
- Low-profile housing with 10mm bezel
- Multiple center hole sizes, ability to have multiple camera holes on one light

Ordering Info

TXFD / TXCFD Part Numbers and Sizes

TXFD available in 25mm (1 in nominal) increments, up to 1000x1000 units



TX Series
Back Light



TABLE 1: PART NUMBER KEY

Contact your Metaphase Sales representative for custom versions (intensity, uniformity, wavelengths, sizes, etc).

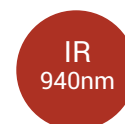
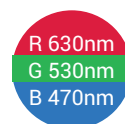
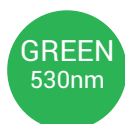
Family	Model	Active Area 1 unit = 25mm	Wavelength	Polarizer	Driver
TXFD TXCFD (Collimated)	XX	XXXX*	XXXXXX	XXX	X
	1A (ULC compatible), 32mm ID	0606	W (White, 5700K)	Blank if no polarizer	U for ULC -
	1B (internal dimmable driver), 32mm ID	0608	R (Red 630nm)	P0	compatible (1A)
	1C (continuous w/ pulse follow), 32mm ID	0808	G (Green 530nm)	P90	
		0810	B (Blue 470nm)		Blank for all other
	2A (ULC compatible), 45mm ID	1010	RGB (Red Green Blue)		versions
	2B (internal dimmable driver), 45mm ID	1012	IR850 (IR850)		
	2C (continuous w/ pulse follow), 45mm ID	1212	RGBIR		
		1214	IR940		
	3A (ULC compatible), 70mm ID	1414			
	3B (internal dimmable drive), 70mm ID	1416			
	3C (continuous w/ pulse follow) 70mm ID	1616			

***Note:** The shorter side of the Active Area dimension is always stated first in the part number.

****Note:** Custom M12 connectors are available. Contact your Sales Manager for custom part number.

Accessories	Part Number	Description
B Versions		
DDC Controller	DDC-3	DIGITAL DIMMING CONTROLLER, 3-CHAN 0-10V OUTPUT <i>Note: Requires 24VDC, 1A power supply</i>
3m cable	CAB-FM12FL-3M	3 METER EXTENSION CABLE, FEMALE M-12 A-CODE 5-PIN TO FLYING LEADS
5m cable	CAB-FM12FL-5M	5 METER EXTENSION CABLE, FEMALE M-12 A-CODE 5-PIN TO FLYING LEADS
10m cable	CAB-FM12FL-10M	10 METER EXTENSION CABLE, FEMALE M-12 A-CODE 5-PIN TO FLYING LEADS
U / A Versions		
ULC-2 Controller	ULC-2	UNIVERSAL LED CONTROLLER, TWO-CHANNEL, WITH ULC-2 CONNECTORS <i>Note: Requires 24VDC power supply, 6.7A, to run at full capability</i>
3m cable	CAB-FM12TU-3M - For 1 channel	3 METER EXTENSION CABLE, FEMALE M12 T-CODE 4-PIN TO ONE ULC CONNECTOR, LED POS ON PIN 1&2, LED NEG ON PINS 3&4
3m cable	CAB-FM12T2U-3M - For 2 channels	3 METER EXTENSION CABLE, FEMALE M12 T-CODE 4-PIN TO TWO ULC CONNECTOR, LED POS CHAN A&B ON PINS 1&2, LED NEG CHAN A&B ON PINS 3&4

Available Wavelengths



Note:
Available in
many more color
combinations

Specifications

TXFD / TXCFD


**TX Series
Back Light**
**General**

Operating Temperature	0-40°C, 90% RH, non-condensing*
IP Rating	IP50
Storage Temperature	0-70°C, 90% RH, non-condensing
Compliance	RoHs, CE, IEC 61000-6-2, 61000-6-4, 61010-1
Photobiological Risk Factor**	Exempt
Warranty	2 Years

* Contact your Metaphase sales engineer for higher temperature environments.

**Full documentation available upon request.

Electrical

Supply Voltage	24VDC+/-5%
Standard Version (-DC)	
0-10V Dimming Control (TXFD TXCFD)	Off: 0V Turn-on Threshold: 0.5V 100% Intensity: 10V Maximum allowance voltage: 10V-24V

Input Impedance $\geq 180k\Omega/1300\text{ cm}^2$ increment, per wavelength

Trigger Input:

Min Trigger Pulse = 2.5 μ s	PNP (See Figure 1)
Max trigger rate = 5 kHz	Voltage Enable > 1.39V
Trigger turn-on delay = 51 μ s	Voltage Disable < .56V
Trigger turn-off delay = 5 μ s	NPN (See Figure 2)
	Input Impedance = 10k Ω

Note : For continuously ON @ full intensity connect 24VDC power supply to +24V, 0-10VDC and PNP trigger-in inputs

Optical

Light Source	LED
LED Array Density	High Density Precision Chip Technology (HDPCT)
Available Wavelengths	470, 530, 630, 850, 940
Intensity	73,000 Lux
Available Color Combinations	W(5700K), RGB, RGBW, WIR850 (5700K/850), WIR940 (5700K/940)
Lifetime	L70 = 75,000 hours
Polarizer (Optional and field-installable by removing one side rail with T6 wrench)	

Mechanical (all units metric)

Housing 25mm profile with 10mm bezel, made of clear anodized aluminum

Mounting
(2) T-nuts minimum per side, pre-installed

Outside Dimensions (OD)
OD = Active Area + 20mm (see Figure 12)

Active Area Designation
Part Number "TXFDXXYY" indicates the Active Area is "Ax" by "Ay"
See Table 1 "Part Number Key"

L-Bracket Mounting
Center-to-center mounting hole distance = Active Area + 40mm (see Figure 13)

Fasteners M4-0.7px6mm hex key head

Weight (kg/mm²) See Table 6: "Weight (kg) for Active Area Width and Length"

Bulkhead Male M12
See Table 4: "Max Current Draw and Number of Connectors per Size (-DC Version)"
Note: "Long Side Right" is default location.



M12A Bulkhead, 5-pos male TXFD Interface
Cable with M12A female connector

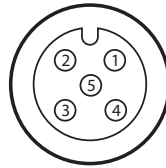
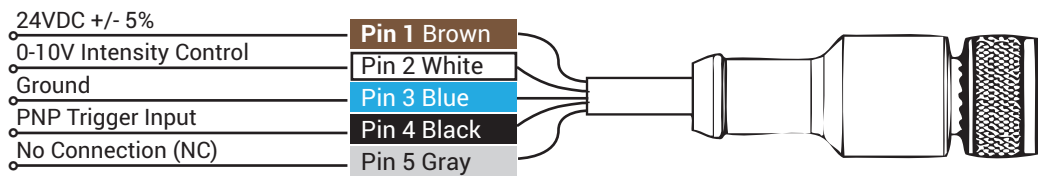


FIGURE 1: TXFD INTERFACE CABLE, M12 5-PIN A-CODE FEMALE CONNECTOR



Note: For continuously ON @ full intensity connect 24VDC power supply to +24V , 0-10VDC and PNP trigger-in inputs.

Note: Common wiring configurations shown. Certain size & # of colors combinations require different wiring. Please refer to documentation supplied with product for exact wiring instructions.

TABLE 2: TXFD/TXCFD INTERFACE CABLE WITH AN M12A FEMALE CONNECTOR

M12A Wiring					
Connector #1	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
1 Wavelength (Note 1)	24V	Wavelength #1: 0-10V	GND	TRG	NC
2 Wavelengths (Note 1)	24V	Wavelength #1: 0-10V	GND	TRG	Wavelength #2 : 0-10V
3 Wavelengths	24V	Wavelength #1: 0-10V	GND	TRG	Wavelength #2: 0-10V
4 Wavelengths	24V	Wavelength #1: 0-10V	GND	TRG	Wavelength #2: 0-10V
Connector #2					
1 Wavelength (Note 1)	24V	NC	GND	NC	NC
2 Wavelengths (Note 1)	24V	NC	GND	NC	NC
3 Wavelengths	24V	Wavelength #3: 0-10V	GND	NC	NC
4 Wavelengths	24V	Wavelength #3: 0-10V	GND	NC	Wavelength #4: 0-10V
Connector #3					
All Lights requiring 3 or 4 connectors	24V	NC	GND	NC	NC
Connector #4					
Not applicable	24V	NC	GND	NC	NC
Note 1: Additional Connector may be required. See Table 4: Max Current Draw and Number of Connectors per Size (Standard Version)					



M12 4-pin T-Code Bulkhead

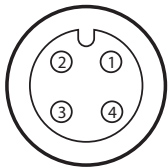
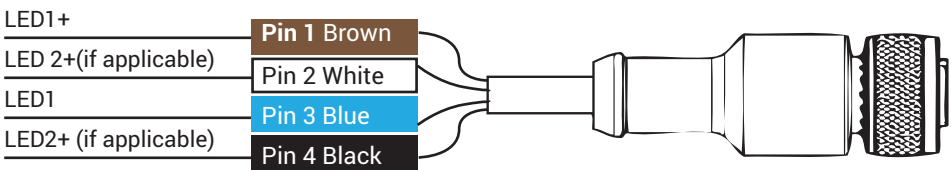


FIGURE 3: CABLE COLOR CODE, M12T CONNECTOR

Pin	Function	Wire Color
1	LED1+	Brown
2	LED2+ (if applicable)	White
3	LED1	Blue
4	LED2+ (if applicable)	Black

FIGURE 4: TXFD INTERFACE CABLE WITH AN M12 4-PIN T-CODE FEMALE CONNECTOR



See Table 1: Part Number Key for Cable Part Number by length.

Note: Common wiring configurations shown. Certain size & # of colors combinations require different wiring. Please refer to documentation supplied with product for exact wiring instructions.

TABLE 3: TXFD INTERFACE CABLE WITH AN M12 4-PIN T-CODE FEMALE CONNECTOR

M12T Wiring				
Connector #1	Pin 1	Pin 2	Pin 3	Pin 4
1 Wavelength	LED+	LED+	LED 1–	LED–
2 Wavelengths	LED+	LED 2+	LED 1–	LED 2–
3 Wavelengths	LED+	LED 2+	LED 1–	LED 2–
4 Wavelengths	LED+	LED 2+	LED 1–	LED 2–
Connector #2				
1 Wavelength				
2 Wavelengths				
3 Wavelengths	LED 3+	NC	LED 3–	NC
4 Wavelengths	LED 3+	LED 4+	LED 3–	LED 4–

ULC-2 CONTROLLER



TXFD / TXCFD Weight vs. Area

TX Series
Back Light

TABLE 6: WEIGHT (KG) FOR ACTIVE AREA WIDTH AND LENGTH

YY	XX															
	TXFD	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	02	0.2														
	03	0.3	0.3													
	04	0.3	0.3	0.4												
	05	0.3	0.4	0.4	0.5											
	06	0.4	0.4	0.5	0.6	0.6										
	07	0.4	0.5	0.5	0.6	0.7	0.8									
	08	0.4	0.5	0.6	0.7	0.8	0.8	0.9								
	09	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1							
	10	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3						
	11	0.5	0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5					
	12	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5	1.6	1.7				
	13	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0			
	14	0.6	0.8	0.9	1.0	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.1	2.2		
	15	0.7	0.8	0.9	1.1	1.2	1.4	1.5	1.6	1.8	1.9	2.1	2.2	2.3	2.5	
	16	0.7	0.8	1.0	1.1	1.3	1.4	1.6	1.7	1.9	2.0	2.2	2.3	2.5	2.6	2.8
	17	0.7	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.2	2.3	2.5	2.6	2.8	3.0
	18	0.8	0.9	1.1	1.3	1.4	1.6	1.8	1.9	2.1	2.3	2.4	2.6	2.8	2.9	3.1
	19	0.8	1.0	1.2	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.6	2.7	2.9	3.1	3.3
	20	0.8	1.0	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.7	2.9	3.0	3.2	3.4
	21	0.9	1.1	1.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.5
	22	0.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5	3.7
	23	0.9	1.1	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8
	24	1.0	1.2	1.4	1.6	1.8	2.0	2.3	2.5	2.7	2.9	3.1	3.3	3.6	3.8	4.0
	25	1.0	1.2	1.5	1.7	1.9	2.1	2.3	2.6	2.8	3.0	3.2	3.5	3.7	3.9	4.1
	26	1.0	1.3	1.5	1.7	2.0	2.2	2.4	2.7	2.9	3.1	3.4	3.6	3.8	4.1	4.3
	27	1.1	1.3	1.6	1.8	2.0	2.3	2.5	2.8	3.0	3.2	3.5	3.7	4.0	4.2	4.4
	28	1.1	1.4	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.8	4.1	4.3	4.6
	29	1.1	1.4	1.6	1.9	2.2	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.2	4.5	4.7
	30	1.2	1.4	1.7	2.0	2.2	2.5	2.8	3.0	3.3	3.6	3.8	4.1	4.4	4.6	4.9
	31	1.2	1.5	1.7	2.0	2.3	2.6	2.8	3.1	3.4	3.7	3.9	4.2	4.5	4.8	5.0
	32	1.2	1.5	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.8	4.1	4.3	4.6	4.9	5.2
	33	1.3	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.7	5.0	5.3
	34	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.2	5.5
	35	1.3	1.6	1.9	2.3	2.6	2.9	3.2	3.5	3.8	4.1	4.4	4.7	5.0	5.3	5.6
	36	1.4	1.7	2.0	2.3	2.6	2.9	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.5	5.8
	37	1.4	1.7	2.0	2.4	2.7	3.0	3.3	3.7	4.0	4.3	4.6	5.0	5.3	5.6	5.9
	38	1.4	1.8	2.1	2.4	2.8	3.1	3.4	3.8	4.1	4.4	4.7	5.1	5.4	5.7	6.1
	39	1.5	1.8	2.1	2.5	2.8	3.2	3.5	3.8	4.2	4.5	4.9	5.2	5.5	5.9	6.2
	40	1.5	1.9	2.2	2.5	2.9	3.2	3.6	3.9	4.3	4.6	5.0	5.3	5.7	6.0	6.4

Part Number sequence:

TXFDXXYY

• XX = shortest dimension,

• YY is $\geq$ XX• One unit of measurement = 25mm
of active area.

Example Active area/weight:

• TXFD0816 = (08) *25mm X (16)
*25mm = 200x400mm,
weight is 1.6 kg.

TXFD / TXCFD Current Draw vs. Size (Version 1A)

TX Series
Back Light

TABLE 5: ULC SETTINGS DC PER CHANNEL (AMPS) PER SIZE

		XX														
YY	TXFD	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	2	0.07	0.1	0.14	0.17	0.2	0.24	0.27	0.31	0.34	0.37	0.41	0.44	0.47	0.51	0.54
	3	0.1	0.15	0.2	0.25	0.31	0.36	0.41	0.46	0.51	0.56	0.61	0.66	0.71	0.76	0.81
	4	0.14	0.2	0.27	0.34	0.41	0.47	0.54	0.61	0.68	0.75	0.81	0.88	0.95	1.02	1.08
	5	0.17	0.25	0.34	0.42	0.51	0.59	0.68	0.76	0.85	0.93	1.02	1.1	1.19	1.27	1.36
	6	0.2	0.31	0.41	0.51	0.61	0.71	0.81	0.92	1.02	1.12	1.22	1.32	1.42	1.53	1.63
	7	0.24	0.36	0.47	0.59	0.71	0.83	0.95	1.07	1.19	1.3	1.42	1.54	1.66	1.78	1.9
	8	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.36	1.49	1.63	1.76	1.9	2.03	2.17
	9	0.31	0.46	0.61	0.76	0.92	1.07	1.22	1.37	1.53	1.68	1.83	1.98	2.14	2.29	2.44
	10	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.69	1.86	2.03	2.2	2.37	2.54	2.71
	11	0.37	0.56	0.75	0.93	1.12	1.3	1.49	1.68	1.86	2.05	2.24	2.42	2.61	2.8	2.98
	12	0.41	0.61	0.81	1.02	1.22	1.42	1.63	1.83	2.03	2.24	2.44	2.64	2.85	3.05	3.25
	13	0.44	0.66	0.88	1.1	1.32	1.54	1.76	1.98	2.2	2.42	2.64	2.86	3.08	3.3	3.53
	14	0.47	0.71	0.95	1.19	1.42	1.66	1.9	2.14	2.37	2.61	2.85	3.08	3.32	3.56	3.8
	15	0.51	0.76	1.02	1.27	1.53	1.78	2.03	2.29	2.54	2.8	3.05	3.3	3.56	3.81	4.07
	16	0.54	0.81	1.08	1.36	1.63	1.9	2.17	2.44	2.71	2.98	3.25	3.53	3.8	4.07	4.34

Example

Part Number sequence: TXFD1AXXYY:

- XX = shortest dimension, YY is $\geq$ XX.
- One unit of measurement = 25mm of active area, example: TXFD0410 is 100mm x 250mm active area
- For the TXFD1A0513, the ULC-2 setting is 1.8A maximum

Note: Color on chart corresponds to number of ULC channels needed AND number of M12 connectors needed.

Note: 3 and 4 color options require more connectors.

Legend

- Requires (1) ULC chan (on 1 M12 connector)
- Requires (2) ULC chan (on 1 M12 connector)

Specifications

TXFD / TXCFD Current Draw vs. Size (1B Version)

TX Series
Back Light

TABLE 4: MAX CURRENT DRAW AND NUMBER OF CONNECTORS PER SIZE (1B VERSION)

XX

TXFD	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	
02	0.06															
03	0.10	0.15														
04	0.13	0.19	0.26													
05	0.16	0.24	0.32	0.40												
06	0.19	0.29	0.39	0.49	0.58											
07	0.23	0.34	0.45	0.57	0.68	0.79										
08	0.26	0.39	0.52	0.65	0.78	0.91	1.04									
09	0.29	0.44	0.58	0.73	0.87	1.02	1.17	1.31								
10	0.32	0.49	0.65	0.81	0.97	1.13	1.29	1.46	1.62							
11	0.36	0.53	0.71	0.89	1.07	1.25	1.42	1.60	1.78	1.96						
12	0.39	0.58	0.78	0.97	1.17	1.36	1.55	1.75	1.94	2.1	2.3					
13	0.42	0.63	0.84	1.05	1.26	1.47	1.68	1.89	2.1	2.3	2.5	2.7				
14	0.45	0.68	0.91	1.13	1.36	1.59	1.81	2.0	2.3	2.5	2.7	2.9	3.2			
15	0.49	0.73	0.97	1.21	1.46	1.70	1.94	2.2	2.4	2.7	2.9	3.2	3.4	3.6		
16	0.52	0.78	1.04	1.29	1.55	1.81	2.1	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.1	
17	0.55	0.83	1.10	1.38	1.65	1.93	2.2	2.5	2.8	3.0	3.3	3.6	3.9	4.1	4.4	
18	0.58	0.87	1.17	1.46	1.75	2.0	2.3	2.6	2.9	3.2	3.5	3.8	4.1	4.4	4.7	
19	0.61	0.92	1.23	1.54	1.84	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	
20	0.65	0.97	1.29	1.62	1.94	2.3	2.6	2.9	3.2	3.6	3.9	4.2	4.5	4.9	5.2	
21	0.68	1.02	1.36	1.70	2.0	2.4	2.7	3.1	3.4	3.7	4.1	4.4	4.8	5.1	5.4	
22	0.71	1.07	1.42	1.78	2.1	2.5	2.8	3.2	3.6	3.9	4.3	4.6	5.0	5.3	5.7	
23	0.74	1.12	1.49	1.86	2.2	2.6	3.0	3.4	3.7	4.1	4.5	4.8	5.2	5.6	6.0	
24	0.78	1.17	1.55	1.94	2.3	2.7	3.1	3.5	3.9	4.3	4.7	5.0	5.4	5.8	6.2	
25	0.81	1.21	1.62	2.0	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.3	5.7	6.1	6.5	
26	0.84	1.26	1.68	2.1	2.5	2.9	3.4	3.8	4.2	4.6	5.0	5.5	5.9	6.3	6.7	
27	0.87	1.31	1.75	2.2	2.6	3.1	3.5	3.9	4.4	4.8	5.2	5.7	6.1	6.6	7.0	
28	0.91	1.36	1.81	2.3	2.7	3.2	3.6	4.1	4.5	5.0	5.4	5.9	6.3	6.8	7.3	
29	0.94	1.41	1.88	2.3	2.8	3.3	3.8	4.2	4.7	5.2	5.6	6.1	6.6	7.0	7.5	
30	0.97	1.46	1.94	2.4	2.9	3.4	3.9	4.4	4.9	5.3	5.8	6.3	6.8	7.3	7.8	
31	1.00	1.51	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	
32	1.04	1.55	2.1	2.6	3.1	3.6	4.1	4.7	5.2	5.7	6.2	6.7	7.3	7.8	8.3	
33	1.07	1.60	2.1	2.7	3.2	3.7	4.3	4.8	5.3	5.9	6.4	6.9	7.5	8.0	8.5	
34	1.10	1.65	2.2	2.8	3.3	3.9	4.4	5.0	5.5	6.1	6.6	7.2	7.7	8.3	8.8	
35	1.13	1.70	2.3	2.8	3.4	4.0	4.5	5.1	5.7	6.2	6.8	7.4	7.9	8.5	9.1	
36	1.17	1.75	2.3	2.9	3.5	4.1	4.7	5.2	5.8	6.4	7.0	7.6	8.2	8.7	9.3	
37	1.20	1.80	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4	9.0	9.6	
38	1.23	1.84	2.5	3.1	3.7	4.3	4.9	5.5	6.1	6.8	7.4	8.0	8.6	9.2	9.8	
39	1.26	1.89	2.5	3.2	3.8	4.4	5.0	5.7	6.3	6.9	7.6	8.2	8.8	9.5	10.1	
40	1.29	1.94	2.6	3.2	3.9	4.5	5.2	5.8	6.5	7.1	7.8	8.4	9.1	9.7	10.4	

Example

Part Number sequence: TXFDXXYY:

- XX = shortest dimension, YY is $\geq$ XX
- One unit of measurement = 25mm of active area: TXFD0410 is 100mm x 250mm active area
- The TXFD0812 requires a quantity of one (1) M12A connector; Current = 2.1A

Legend

- Requires (1) M12
- Requires (2) M12
- Requires (3) M12

Tables

TXFD / TXCFD Current Draw vs. Size (1C Version)

TX Series
Back Light

TABLE 4: MAX CURRENT DRAW AND NUMBER OF CONNECTORS PER SIZE (STANDARD VERSION)

XX

YY

TXFD	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
02	0.07	0.10	0.14	0.17	0.20	0.24	0.27	0.31	0.34	0.37	0.41	0.44	0.47	0.51	0.54
03	0.10	0.15	0.20	0.25	0.31	0.36	0.41	0.46	0.51	0.56	0.61	0.66	0.71	0.76	0.81
04	0.14	0.20	0.27	0.34	0.41	0.47	0.54	0.61	0.68	0.75	0.81	0.88	0.95	1.02	1.08
05	0.17	0.25	0.34	0.42	0.51	0.59	0.68	0.76	0.85	0.93	1.02	1.10	1.19	1.27	1.36
06	0.20	0.31	0.41	0.51	0.61	0.71	0.81	0.92	1.02	1.12	1.22	1.32	1.42	1.53	1.63
07	0.24	0.36	0.47	0.59	0.71	0.83	0.95	1.07	1.19	1.30	1.42	1.54	1.66	1.78	1.90
08	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.36	1.49	1.63	1.76	1.90	2.03	2.17
09	0.31	0.46	0.61	0.76	0.92	1.07	1.22	1.37	1.53	1.68	1.83	1.98	2.14	2.29	2.44
10	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.69	1.86	2.03	2.20	2.37	2.54	2.71
11	0.37	0.56	0.75	0.93	1.12	1.30	1.49	1.68	1.86	2.05	2.24	2.42	2.61	2.80	2.98
12	0.41	0.61	0.81	1.02	1.22	1.42	1.63	1.83	2.03	2.24	2.44	2.64	2.85	3.05	3.25
13	0.44	0.66	0.88	1.10	1.32	1.54	1.76	1.98	2.20	2.42	2.64	2.86	3.08	3.30	3.53
14	0.47	0.71	0.95	1.19	1.42	1.66	1.90	2.14	2.37	2.61	2.85	3.08	3.32	3.56	3.80
15	0.51	0.76	1.02	1.27	1.53	1.78	2.03	2.29	2.54	2.80	3.05	3.30	3.56	3.81	4.07
16	0.54	0.81	1.08	1.36	1.63	1.90	2.17	2.44	2.71	2.98	3.25	3.53	3.80	4.07	4.34

Example

Part Number sequence: TXFD1AXXXY:

- XX = shortest dimension, YY is $\geq$ XX
- One unit of measurement = 25mm of active area: TXFD1A0410 is 100mm x 250mm active area
- The TXFD1A0812 requires a quantity of one (1) M12A connector; Current = 1.63A

Legend

Requires (1) M12

Requires (2) M12

Note: 3 and 4 color options require more connectors.



FIGURE 12: TXFD / TXCFD DIMENSIONS TOP VIEW

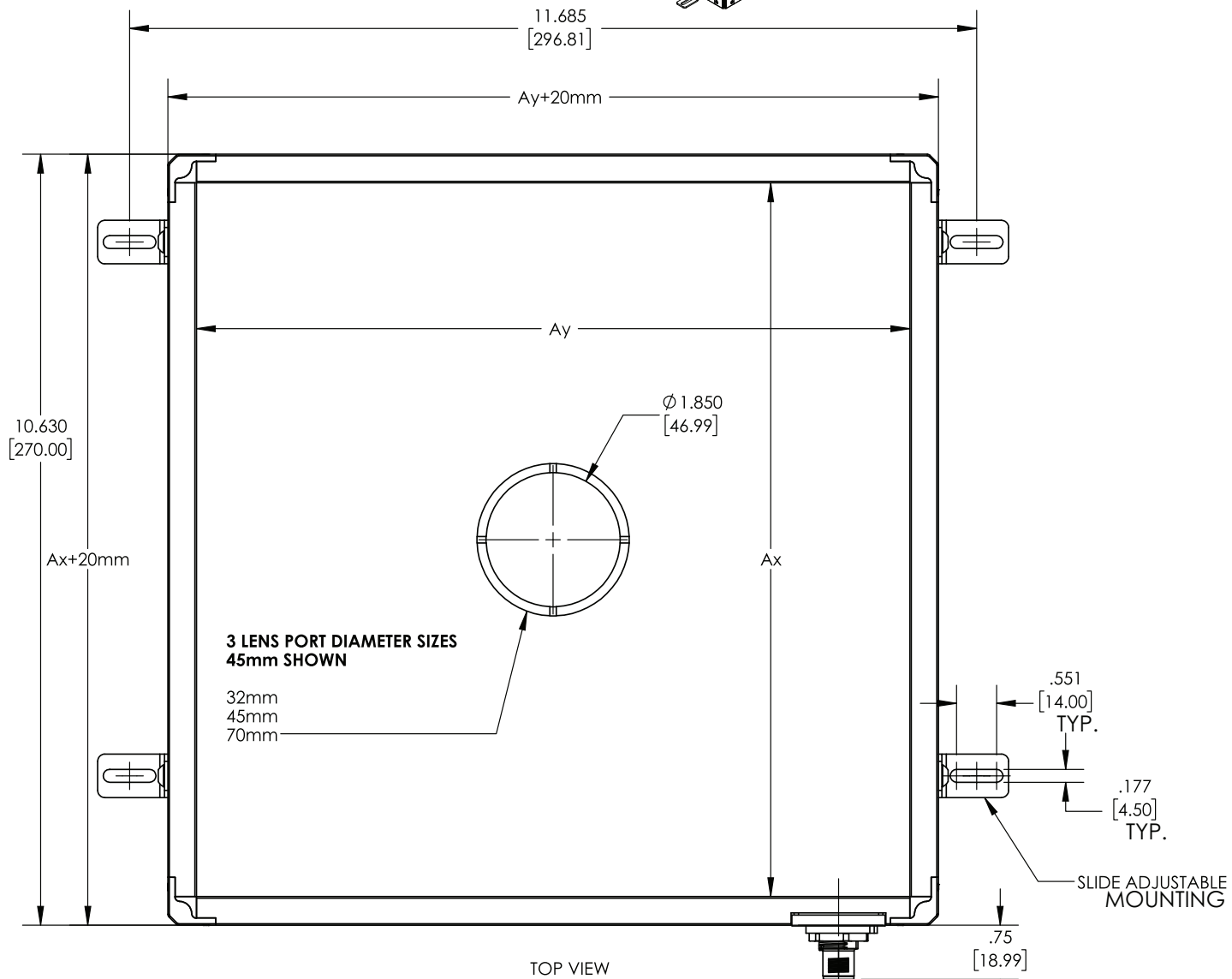
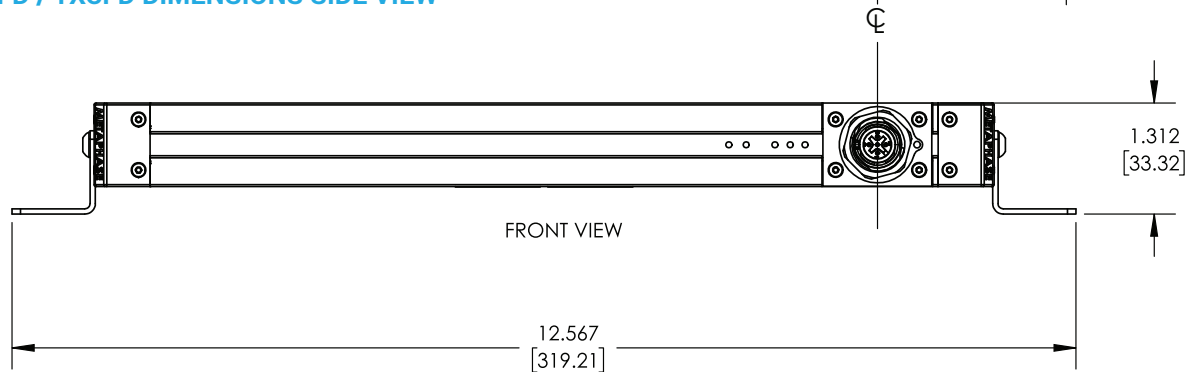


FIGURE 13: TXFD / TXCFD DIMENSIONS SIDE VIEW





For nearly two decades, Metaphase Technologies has been developing products that implement "The Quality of Light" through engineering and manufacture of cutting-edge LED illuminators for machine vision, military, and specialty lighting applications.

We're proud of our demonstrated expertise engineering flexible lighting solutions that have facilitated integration into thousands of vision systems designs.

Throughout the world, Metaphase clients enjoy the enhanced automation and image capture benefits of our patent-pending breakthroughs in uniform diffuse high brightness and ultra-brightness LED illumination.

First to implement built-in constant current drivers across multiple product lines, Metaphase continues to synergize cutting-edge LED lighting & control technologies that streamline innovation and increases return on investment.

Made in the USA for nearly 30 years, our versatile designs are continuously updated to incorporate the latest advances in LEDs, thermal management, optics, and electronic technologies to meet the challenging needs of today's global automation and scientific marketplace.

Contact us to see how Metaphase can help with your cutting-edge lighting needs.



200 Rittenhouse Circle, West Unit 7, Bristol, PA 19007 USA

+1-215-639-8699 www.metaphase-tech.com

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