

MINOLTA CORPORATION'S MACRO TWIN FLASH 2400 / MACRO RING FLASH 1200 WITH MACRO FLASH CONTROLLER

Specifications

Type	Auto-electronic flash dedicated for Minolta Maxxum 7, 9, si-, xi-, and i-series AF SLR cameras				
Flash Metering	Direct TTL OTF flash metering				
Ratio Flash	Macro Twin Flash 2400: Yes (Can be manually selected between the two flashtubes in Manual Flash Control) Macro Ring Flash 1200: No				
Guide Number (in meters, ISO 100)	Macro Twin Flash 2400:				
	<u>Power Level</u>	<u>1 flashtube</u>	<u>2 flashtubes</u>	<u>Wide Angle Adapter*</u>	<u>Diffuser*</u>
	1/1	17	24	11	7
	1/2	12	17	8	5
	1/4	8.5	12	5.6	3.5
	1/8	6	8.5	4	2.5
	1/16	4.2	6	2.8	1.8
	1/32	3	4.2	2	1.3
	1/64	2.1	3	1.4	0.9
	(*per flashtube)				
	Macro Ring Flash 1200:				
	<u>Power Level</u>	<u>1 flashtube</u>	<u>4 flashtubes</u>		
	1/1	12	10		
	1/2	8.5	7		
	1/4	6	5		
1/8	4.2	3.5			
1/16	3	2.5			
1/32	2.1	1.8			
1/64	1.5	1.3			
Flash Coverage	Macro Twin Flash 2400:				
		<u>1 flashtube</u>	<u>Wide Angle Adapter*</u>	<u>Diffuser*</u>	
	Vertical angle:	45°	60°	90°	
	Horizontal angle:	60°	78°	90°	
	(*per flashtube)				
Flash Coverage	Macro Ring Flash 1200:				
	Vertical angle: 80°				
	Horizontal angle: 80°				
Power Level	Selectable from seven levels (1/1, 1/2, 1/4, 1/8, 1/16, 1/32, and 1/64; 1/1, 1/1.4, 1/2, 1/2.8, 1/4, 1/5.6, and 1/8 when 1/2 EV increment is selected with a Custom Function)				
Modeling Flash	Macro Twin Flash 2400: 40 Hz (2 seconds)				
	Macro Ring Flash 1200: No				

Test Flash	Macro Twin Flash 2400: Yes Macro Ring Flash 1200: Yes	
Focus Lamps	Macro Twin Flash 2400: No Macro Ring Flash 1200: Yes (on the Ring Flash Unit R-1200)	
Power Source	Four AA-size batteries (alkaline, Ni-MH, or lithium); External power with (optional) AC adapter	
Battery Performance	<u>Times</u>	<u>Frequency</u>
	Alkaline: approximately 200 – 4000	approximately 0.2 – 6 seconds
	Ni-MH: approximately 150 – 3000	approximately 0.2 – 5 seconds
	Lithium: approximately 500 – 10000	approximately 0.2 – 6 seconds
	<i>*Performance depends on power output and use.</i>	
Dimensions (W x H x D)	Macro Twin Flash 2400: Twin Flash Units T-2400: 1.7 x 1.6 x 1.5 inches (43 x 41 x 37mm) Macro Ring Flash 1200: Ring Flash Unit R-1200: 3.9 x 4.7 x 0.9 inches (98 x 121 x 22mm) Macro Flash Controller: 2.7 x 4.8 x 3.6 inches (68 x 123 x 91mm)	
Weight	Macro Twin Flash 2400: Twin Flash Units T-2400: 1.06 ounces (30g) Macro Ring Flash 1200: Ring Flash Unit R-1200: 4.2 ounces (120g) Macro Flash Controller: 8.6 ounces (245g) (without batteries)	
Packing List	Macro Twin Flash 2400: Twin Flash Unit T-2400 (x2), Twin Flash Adapter Ring 49mm, Twin Flash Adapter Ring 55mm, Twin Flash Arm (x2), Twin Flash Holder, Twin Flash Wideangle-adapter (x2), Twin Flash Diffuser (x2), Cord Reel for Twin Flash Unit T-2400 (x2), Case For Macro Twin Flash 2400. Macro Ring Flash 1200: Ring Flash Unit R-1200, 1200AF Adapter Ring 49mm, 1200AF Adapter Ring 55mm, Bag for macro ring flash 1200. Macro Flash Controller: Macro Flash Controller MFC-1000, Case for PF3600HS(D).	
Optional Accessories	Macro Twin Flash 2400: Twin Flash Adapter Ring 72mm Macro Ring Flash 1200: Macro Flash Adapter for AF MACRO 200mm (f/4 Apo Tele) External AC Adapter	

*Unless individually stated, the specifications apply to both flashes.
The specifications, packing list, and optional accessories are subject to change without notification.*