

# MODERN PHOTOGRAPHY

## TAMRON SP LENS DUO: 17mm f/3.5, 90mm f/2.5



**Specifications:** 17mm f/3.5 Tamron SP, No. 905785; Adaptall-2 mounts for Olympus OM, Canon FD, Minolta MD, Konica AR, Contax/Yashica; Adaptall mounts for Pentax K, ES, Universal, Nikon AI, Fujica ST, Mamiya (SX and ZE), Topcon, Rollei, Canon FL; accepts 82mm filters; built-in 1A, 80B, 81B, Y2 filters; f/3.5-f/22 with click stops at ½ stops except between f/16 and f/22; min foc. dist. 9 13/16 in. (0.25m); 1 11/16 in. long, 2 13/16 in. diam. (43x70mm); 9½ oz. (270g); \$468.

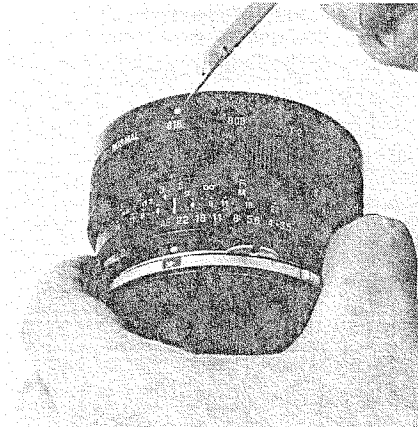
**Specifications:** 90mm f/2.5 Tamron SP, No. 911331; mounts as above; accepts 49mm filters; f/2.5 to f/32, with click stops at ½ stops except between f/16 and f/32; min. foc. dist. 15 5/16 in. (0.39m); 2½ in. long, 2½ in. diam. (66 x 64.5 mm); close focusing to 1:2, 1:1 with 2X converter; \$290.

**Practical comments:** 17mm f/3.5 has legible white scales, nice black finish, smooth, precise, rapid focusing helical, finder image bright to corners. Built-in, inter-lens filter wheel with control ring toward front has 5 clock-stop settings with skylight 1A's (labeled "Normal") at either end plus 80B (daylight-to-3400°K), 81B (warming) and Y2 (medium yellow). We would prefer five different filters including 85B (daylight to tungsten); filters can be mistakenly dialed in since filter ring is same diameter and texture as focus ring.

Well-finished 90mm f/2.5 is conveniently short, very well balanced on camera; 1¼-in.-wide textured rubber focusing ring is easy to grasp, with smooth, precise action; all scales very legible; f/32 minimum aperture very useful in macro and with fast films; magnification ratios with and without 2X converter clearly indicated on barrel; 49mm front thread often enables use of existing filters, but front element isn't well shielded from stray light unless accessory hood is used.

**Optical bench analysis:** In center of field at f/3.5 very slight yellowish flare, gone by f/5.6. Off axis, image pattern excellent at all apertures.

The 90mm f/2.5 exhibited tight, bright central image core on axis at f/2.5, with slight spherical aberration, reduced to very slight levels at f/5.6 with touch of yellow-orange flare. Image quality optimal by f/16.

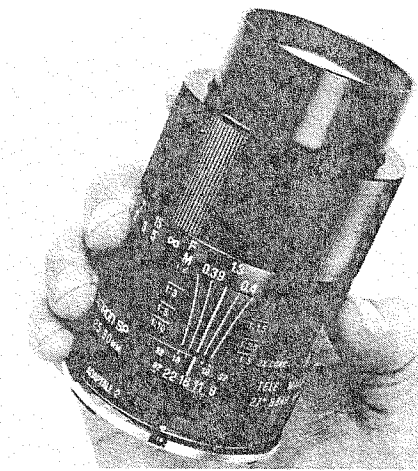


Dial-a-filter wheel gives Tamron 17mm users choice of four, including 81B warming filter at pointer, but we wish it had a different texture (see text).

Toward corners of field, some reddish and surrounding yellowish flare near the image core at f/2.5, but greatly improved by f/4, diffraction limited (optimal) at f/16.

**Field test slides:** The 17mm f/3.5 exhibited fine image detail across field at all apertures, but moderate contrast. Flare very well controlled throughout; illumination across field excellent. Linear distortion noticeable in some subjects, but present in average amounts.

The 90mm f/2.5 delivered crisp, snappy transparencies at all apertures, with good contrast, fine image detail across the field. Sharpness improved somewhat in f/8 to f/16 range. Some flare noticeable under adverse conditions (sun just outside picture) partially due to shallowly recessed front element.



Clear scaling on 90mm's barrel includes depth-of-field lines, magnification scales with and without 2X converter in place.

### PERFORMANCE

Our Standard	Tested
Focal length: ± 5% (16.15 to 17.85mm)	17.75mm
Max. aperture: ± 5% (f/3.33 to f/3.68)	f/3.56
Distortion: ± 4.0% less than 1% (pincushion)	
Light falloff: at f/5.6 + 1 stop from theoretical limit (0-3.67 stops)	1.25 stops

### RESOLUTION

Tamron 17mm f/3.5 at 1:48 magnification				
f/no.		Center Lines/mm		Corner Lines/mm
3.5	Excellent	60	Excellent	38
4	Excellent	67	Excellent	38
5.6	V. Good	54	Excellent	43
8	V. Good	54	Excellent	54
11	V. Good	54	Excellent	54
16	Excellent	67	Excellent	48
22	V. Good	54	Excellent	38

### CONTRAST

Tamron 17mm f/3.5 at 30 lines/mm				
f/no.		Center %		Corner %
3.5	Medium	48	Medium	31
4	Medium	50	High	40
5.6	Medium	64	Medium	49
8	Medium	66	High	57
11	High	64	High	56
16	Medium	56	High	51
22	Low	43	High	42

### PERFORMANCE

Our Standard	Tested
Focal length: ± 5% (85.50 to 94.50mm)	88.49mm
Max. aperture: ± 5% (f/2.38 to f/2.63)	f/2.58
Distortion: ± 2.0% less than 0.5% (pincushion)	
Light falloff: at f/5.6, + 1 stop from theoretical limit (0-1.15 stops)	0.15 stops

### RESOLUTION

Tamron 90mm f/2.5 at 1:49 magnification				
f/no.		Center Lines/mm		Corner Lines/mm
2.5	Excellent	49	Excellent	55
4	Excellent	62	Excellent	55
5.6	Excellent	62	Excellent	55
8	Excellent	69	Excellent	62
11	Excellent	69	Excellent	62
16	Excellent	62	Excellent	62
22	Excellent	55	Excellent	49
32	V. Good	44	Excellent	44

### CONTRAST

Tamron 90mm f/2.5 at 30 lines/mm				
f/no.		Center %		Corner %
2.5	Medium	49	Low	23
4	High	72	High	54
5.6	High	76	High	60
8	Medium	66	High	55
11	Medium	64	Medium	52
16	Medium	53	Medium	47
22	Low	45	Low	40
32	V.Low	33	Low	30