

LENS

Art. No. 21577
Barcode 0027075114173

- > Optimised for use with digital cameras
- > Equivalent to 18 – 36mm in 35mm film format
- > Special ED lenses for the correction of unwanted color fringings
- > "Quick Shift Focus System" for quickly switching between AF and MF
- > 2 aspherical lens elements

Standard Accessories

Front Cap O-LC77 Art.-Nr. 31516
Rear Cap Art.-Nr. 31006
Lens hood PH-RBI77 Art.-Nr. 38745

Optional Accessories

Soft Bag S100-120 Art.-Nr. 37755

Application

The smc-DA series of lenses are particularly developed and designed for use with PENTAX digital cameras. They are designed to fulfil the high digital image technology standards of PENTAX digital SLR cameras and are intended exclusively for use with these cameras.

Extreme focal lengths are the domain of SLR photography. With the 12 – 24mm zoom lens PENTAX has succeeded in mastering a difficult challenge and can now offer wide angle photography on the highest digital level. With the 35mm equivalent of an 18 – 36mm lens, breath taking photographs are possible even if the spatial surroundings are limited.



The manufacturer reserves the right to changes in technology, design, equipment and scope of supply without advance notice.

As of September 2005



Angle of View

- 99° – 61°

Construction

- 13 Elements / 11 Groups

Minimum Aperture

- 22

Focusing Range

- 30cm – ∞ (1ft.)

Magnification

- approx. 1:8.3 (0.12x)

Filter Size

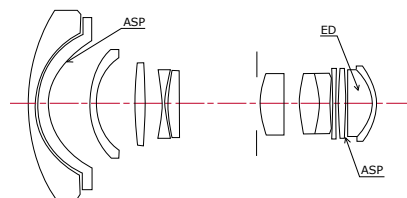
- E77

Weight

- 430g (16.9oz.)

smc-DA

12–24mm/4.0 ED AL (IF)

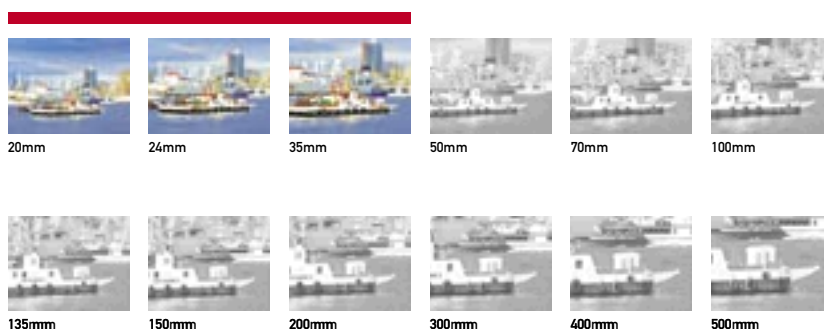


This lens is designed exclusively for use on PENTAX digital cameras.

We recommend that Slim filters be used exclusively.

Viewing angle

■ Angle-of-view for digital cameras



smc-DA

12-24mm/4,0 ED AL (IF)

Depth of field table

f = 12mm

F \ meters	4	5.6	8	11	16	22
0.30	0.28 0.33	0.27 0.34	0.26 0.36	0.25 0.40	0.24 0.49	0.22 0.70
0.35	0.32 0.39	0.31 0.42	0.29 0.46	0.28 0.53	0.26 0.74	0.24 1.66
0.40	0.35 0.47	0.34 0.5	0.32 0.57	0.30 0.71	0.27 1.24	0.25 ∞
0.50	0.42 0.63	0.4 0.71	0.37 0.89	0.34 1.35	0.30 38.58	0.27 ∞
0.70	0.54 1.06	0.49 1.36	0.44 2.47	0.40 ∞	0.34 ∞	0.3 ∞
1.00	0.68 2.15	0.6 4.33	0.52 ∞	0.45 ∞	0.38 ∞	0.32 ∞
2.00	0.97 ∞	0.81 ∞	0.66 ∞	0.55 ∞	0.43 ∞	0.35 ∞
∞	1.69 ∞	1.24 ∞	0.90 ∞	0.68 ∞	0.50 ∞	0.39 ∞

f = 15mm

F \ meters	4	5.6	8	11	16	22
0.30	0.28 0.32	0.28 0.33	0.27 0.34	0.26 0.36	0.25 0.41	0.23 0.48
0.35	0.33 0.38	0.32 0.40	0.30 0.42	0.29 0.46	0.27 0.55	0.26 0.73
0.40	0.36 0.45	0.35 0.47	0.34 0.51	0.32 0.57	0.30 0.73	0.27 1.19
0.50	0.44 0.59	0.42 0.63	0.40 0.72	0.37 0.88	0.33 1.46	0.30 12.71
0.70	0.57 0.92	0.54 1.05	0.49 1.38	0.45 2.31	0.39 ∞	0.34 ∞
1.00	0.74 1.60	0.68 2.14	0.60 4.53	0.53 ∞	0.45 ∞	0.38 ∞
2.00	1.13 12.19	0.97 ∞	0.81 ∞	0.67 ∞	0.53 ∞	0.44 ∞
∞	235 ∞	1.71 ∞	1.22 ∞	0.97 ∞	0.66 ∞	0.51 ∞

f = 18mm

F \ meters	4	5.6	8	11	16	22
0.30	0.29 0.31	0.28 0.32	0.28 0.33	0.27 0.34	0.26 0.37	0.25 0.40
0.35	0.33 0.37	0.33 0.38	0.32 0.40	0.31 0.42	0.29 0.46	0.28 0.53
0.40	0.37 0.43	0.37 0.44	0.35 0.47	0.34 0.50	0.32 0.58	0.30 0.71
0.50	0.46 0.56	0.44 0.58	0.42 0.63	0.40 0.71	0.37 0.89	0.34 1.34
0.70	0.61 0.84	0.58 0.91	0.54 1.05	0.50 1.32	0.44 2.4	0.40 ∞
1.00	0.80 1.35	0.75 1.57	0.68 2.12	0.61 3.89	0.53 ∞	0.45 ∞
2.00	1.30 4.69	1.14 10.67	0.97 ∞	0.83 ∞	0.67 ∞	0.55 ∞
∞	3.34 ∞	2.41 ∞	1.72 ∞	1.28 ∞	0.91 ∞	0.69 ∞

f = 20mm

F \ meters	4	5.6	8	11	16	22
0.30	0.29 0.31	0.29 0.32	0.28 0.32	0.28 0.33	0.27 0.35	0.26 0.38
0.35	0.34 0.37	0.33 0.37	0.32 0.39	0.31 0.40	0.30 0.43	0.29 0.48
0.40	0.38 0.42	0.37 0.44	0.36 0.45	0.35 0.48	0.33 0.53	0.31 0.61
0.50	0.46 0.54	0.45 0.56	0.43 0.60	0.41 0.65	0.39 0.76	0.36 0.98
0.70	0.62 0.81	0.60 0.86	0.56 0.96	0.52 1.12	0.47 1.59	0.43 3.44
1.00	0.83 1.26	0.78 1.41	0.72 1.73	0.66 2.45	0.57 8.73	0.5 ∞
2.00	1.39 3.71	1.24 5.74	1.07 35.6	0.92 ∞	0.75 ∞	0.63 ∞
∞	4.11 ∞	2.96 ∞	2.10 ∞	1.56 ∞	1.10 ∞	0.83 ∞

f = 24mm

F \ meters	4	5.6	8	11	16	22
0.30	0.29 0.31	0.29 0.31	0.29 0.32	0.28 0.32	0.27 0.33	0.27 0.35
0.35	0.34 0.36	0.33 0.37	0.33 0.38	0.32 0.39	0.31 0.41	0.30 0.43
0.40	0.38 0.42	0.38 0.42	0.37 0.44	0.36 0.45	0.35 0.48	0.33 0.53
0.50	0.47 0.53	0.46 0.55	0.45 0.57	0.43 0.60	0.41 0.67	0.38 0.77
0.70	0.64 0.77	0.62 0.81	0.59 0.87	0.56 0.96	0.52 1.17	0.47 1.62
1.00	0.87 1.18	0.83 1.27	0.78 1.45	0.72 1.75	0.64 2.76	0.57 9.99
2.00	1.51 3.02	1.38 3.82	1.22 6.42	1.07 49.02	0.89 ∞	0.75 ∞
∞	5.53 ∞	3.97 ∞	2.81 ∞	2.07 ∞	1.45 ∞	1.08 ∞