

Entocentric lenses up to 1.2" imager

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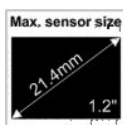
VCG series

Product features

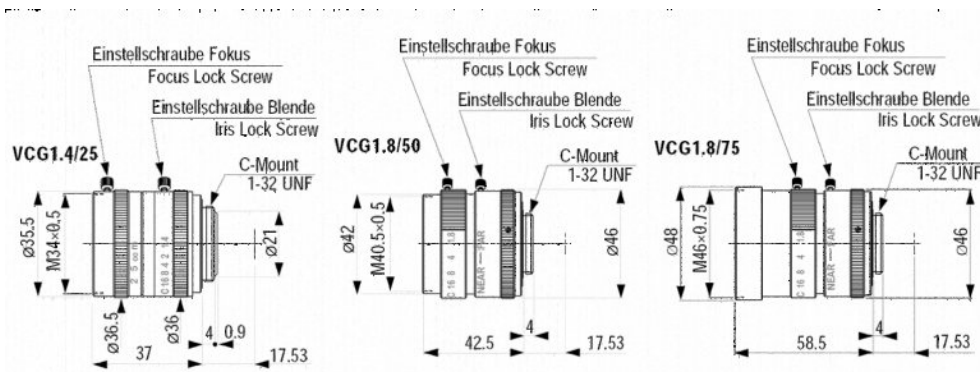
- Application for matrix and line cameras up to sensor diagonal/length 21.4 mm
- Lineup of three models (f = 25mm, 50mm, 75mm)
- C-mount (thread connection)



Options



Engineering drawing



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Up to
1.2"
imager

Entocentric lenses up to 1.2" imager

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VCG series

Properties

Optical properties

Spectral range 380...900nm / colour-corrected / fast lenses

Mechanical properties

Environmental temperature -10°C ... 50°C

Optical data

Name	Order no.	Focal length [mm]	F-number	Object angle for 1.2" sensor (hor. x vert.) [°]	Object angle for 1" sensor (hor. x vert.) [°]	Object angle for ¾" sensor (hor. x vert.) [°]	Object angle for ½" sensor (hor. x vert.) [°]	Object angle for ¼" sensor (hor. x vert.) [°]
VCG 1,4/25	2-10-240	25	1,4 ... C	34 × 34	28,7 × 21,7	20 × 15	15 × 11	11 × 8,2
VCG 1,8/50	2-10-241	50	1,8 ... C	17 × 17	14,5 × 10,9	10 × 7,5	7,5 × 5,6	5,6 × 4,2
VCG 1,8/75	2-10-242	75	1,8 ... C	12 × 12	9,7 × 7,3	6,7 × 5,0	5,0 × 3,7	3,7 × 2,8

Size of imaging device:

1.2" - 15.2 × 15.2 mm² | 1" - 12.8 × 9.6 mm² | ¾" - 8.8 × 6.6 mm² | ½" - 6.4 × 4.8 mm² | ¼" - 4.8 × 3.6 mm²

Name	Order no.	Min. working distance	Max. diameter of lens	Length from bearing surface	Filter thread connection	Weight
VCG 1,4/25	2-10-240	0,5 m	36,5 mm	37 mm	M34 × 0,5	90 g
VCG 1,8/50	2-10-241	0,7 m	46 mm	42,5 mm	M40,5 × 0,5	150 g
VCG 1,8/75	2-10-242	0,8 m	48 mm	42,5 mm	M46 × 0,75	250 g

Important advice

Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of protection glass. You shall be screw-on first lens.

Care instruction

Clean easily dirty lens with an optics brush or cleaned air. Adherent contamination can be removed by using an optical cleaning tissue. Please use only alcohol as a solvent, do not use acetone or other chemicals.

Accessories

Order no.	Name	Description
2-91-208	UV M34 x 0,5	protection glass for entocentric lens-systems
2-91-200	UV M40,5 x 0,5	protection glass for entocentric lens-systems
2-91-201	UV M46 x 0,75	protection glass for entocentric lens-systems
2-91-218	IR M34 x 0,5	daylight-cutting-filter for entocentric lens-systems
2-91-210	IR M40,5 x 0,5	daylight-cutting-filter for entocentric lens-systems
2-91-211	IR M46 x 0,75	daylight-cutting-filter for entocentric lens-systems
2-91-228	Pol M34 x 0,5	polarizing filter, linear, for entocentric lens-systems
2-91-220	Pol M40,5 x 0,5	polarizing filter, linear, for entocentric lens-systems
2-91-221	Pol M46 x 0,75	polarizing filter, linear, for entocentric lens-systems

You can find a multiplicity of filters in the chapter accessories. Please order the filters separately.

High resolution, entocentric lenses

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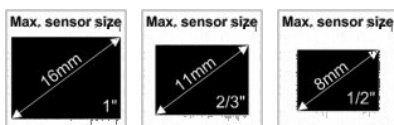
VCH series

Product features

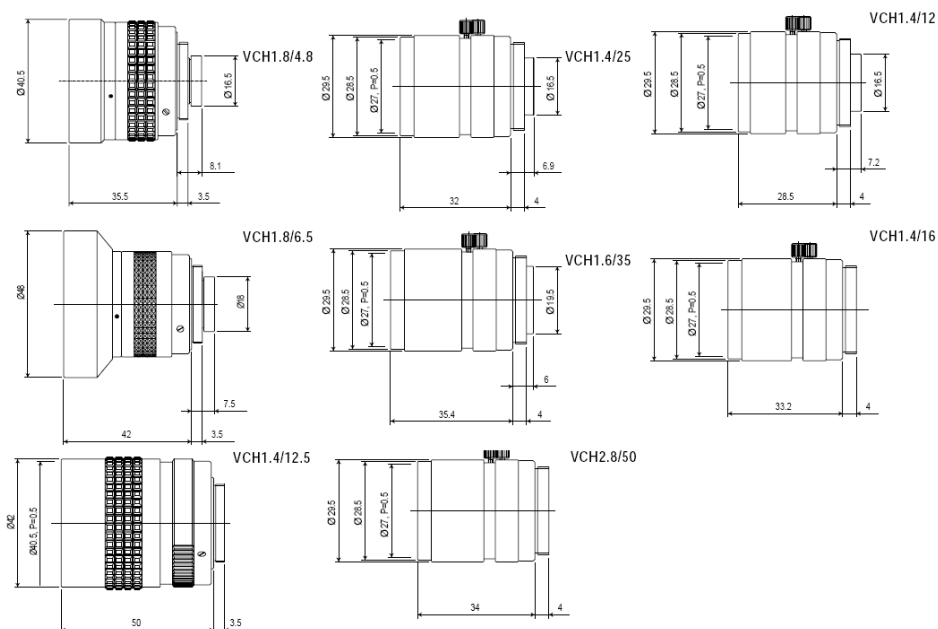
- High resolution lenses with fixed focal length
- A wide range of lenses (f = 4,8 up to 50 mm)
- Application for matrix and line cameras up to sensor diagonal/length 16 mm
- Small, light and fast
- C-mount (thread connection)



Options



Engineering drawing



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High resolution, entocentric lenses

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VCH series

Properties

Optical properties

Spectral range 380...900nm / colour-corrected

Mechanical properties

Environmental temperature -20°C ... 50°C

Optical data

Name	Order no.	Focal length [mm]	F-number	Object angle for 1" sensor (hor. x vert.) [°]	Object angle for ¾" sensor (hor. x vert.) [°]	Object angle for ½" sensor (hor. x vert.) [°]	Object angle for ¼" sensor (hor. x vert.) [°]
VCH 1,8/4,8	2-10-212	4,8	1,8 ... C	--	85 × 69	67 × 53	53 × 42
VCH 1,4/12	2-10-214	12	1,4 ... C	--	--	30 × 23	23 × 17
VCH 1,4/12,5	2-10-215	12,5	1,4 ... C	54 × 42	39 × 30	29 × 22	22 × 17
VCH 1,4/16	2-10-216	16	1,4 ... C	--	31 × 23	23 × 17	17 × 13
VCH 1,4/25	2-10-217	25	1,4 ... C	--	20 × 15	15 × 11	11 × 8,5
VCH 1,6/35	2-10-218	35	1,6 ... C	--	14 × 11	10 × 7,9	8,0 × 6,1
VCH 2,8/50	2-10-219	50	2,8 ... C	--	10 × 7,5	7,3 × 5,5	5,7 × 4,2

Mechanical data

Name	Order no.	Min. working distance	Max. diameter of lens	Length from bearing surface	Filter thread connection	Weight	Special features
VCH 1,8/4,8	2-10-212	0,3 m	40,5 mm	35,5 mm	--	105 g	large sensor
VCH 1,4/12	2-10-214	0,25 m	29,5 mm	28,5 mm	M27 × 0,5	55 g	low distortion
VCH 1,4/12,5	2-10-215	0,3 m	42 mm	50 mm	M40,5 × 0,5	135 g	high resolution
VCH 1,4/16	2-10-216	0,25 m	29,5 mm	33,2 mm	M27 × 0,5	63 g	high resolution
VCH 1,4/25	2-10-217	0,25 m	29,5 mm	32 mm	M27 × 0,5	55 g	high resolution
VCH 1,6/35	2-10-218	0,4 m	29,5 mm	35,4 mm	M27 × 0,5	64 g	high resolution, fast lenses
VCH 2,8/50	2-10-219	0,9 m	29,5 mm	34 mm	M27 × 0,5	55 g	high resolution, distortionfree

Important advice

Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of protection glass. You shall be screw-on first lens.

Care instruction

Clean easily dirty lens with an optics brush or cleaned air. Adherent contamination can be removed by using an optical cleaning tissue. Please use only alcohol as a solvent, do not use acetone or other chemicals.

High resolution, entocentric lenses

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VCH series

Accessories

Order no.	Name	Description
2-91-206	UV M27 x 0,5	protection glass for entocentric lens-systems
2-91-216	IR M27 x 0,5	daylight-cutting-filter for entocentric lens-systems
2-91-226	Pol M27 x 0,5	polarizing filter, linear, for entocentric lens-systems
2-91-236	NF4 M27 x 0,5	neutral density, 4 x for entocentric lens-systems
2-91-246	NF16 M27 x 0,5	neutral density, 16 x for entocentric lens-systems
2-91-256	NF1000 M27 x 0,5	neutral density, 1000 x for entocentric lens-systems
2-91-265	RF M27 x 0,5	red filter for entocentric lens-systems
1-10-006	RK1220 adapter ring M27x0.5	to attach the RK1220 to entocentric lenses with filter thread M27x0.5

Entocentric compact lenses

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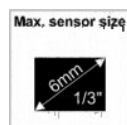
VCK series

Product features

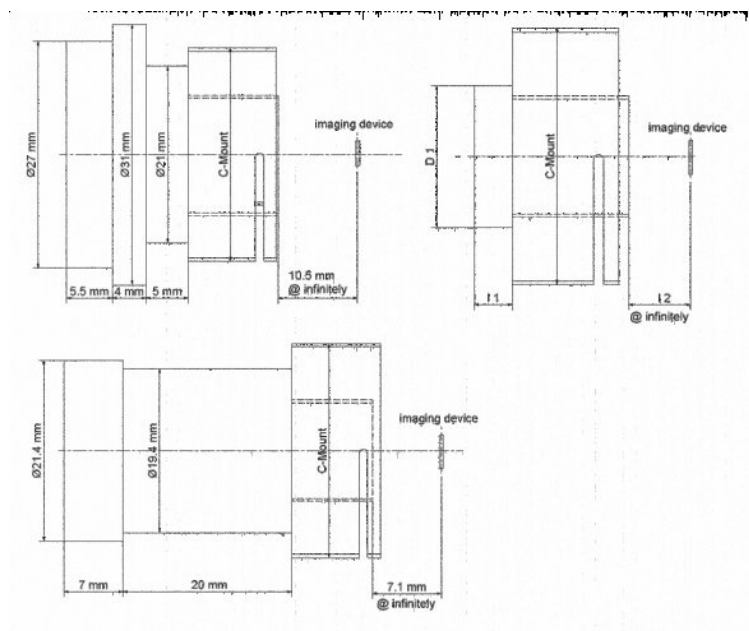
- Compact lenses with fixed focal length
- A wide range of lenses ($f = 2.1$ up to 25 mm)
- Application for matrix cameras up to sensor diagonal 6 mm
- Fisheye lens ($f = 2.1$ mm)
- Compactly design and very small weight (max. 25g)
- Fixed aperture
- Focus adjustable using an adapter
- C-mount (thread connection)



Options



Engineering drawing



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Entocentric compact lenses

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VCK series

Properties

Optical properties

Spectral range 380...900nm / colour-corrected

Mechanical properties

Environmental temperature -10°C ... 50°C

Optical data

Name	Order no.	Focal length [mm]	F-number	Object angle for 1/2" sensor (hor. x vert.) [°]	Min. working distance [m]
VCK 1,8/2,1	2-10-280	2,1	1,8	128 × 90	0,2
VCK 2/2,5	2-10-281	2,5	2	113 × 77	0,2
VCK 2/2,8	2-10-282	2,8	2	100 × 74	0,2
VCK 2/3,6	2-10-283	3,6	2	81 × 62	0,2
VCK 2/4	2-10-284	4	2	74 × 56	0,2
VCK 2/6	2-10-285	6	2	49 × 37	0,2
VCK 2/8	2-10-286	8	2	35 × 27	0,2
VCK 2/10	2-10-287	10	2	26 × 22	0,2
VCK 2/12	2-10-290	12	2,0	21 × 14	0,2
VCK 2/16	2-10-288	16	2	15 × 12	0,2
VCK 2/25	2-10-289	25	2	10 × 7,8	0,4

Mechanical data

Name	Order no.	Diameter D1	Length L1	Length L2	Weight	Special features
VCK 1,8/2,1	2-10-280	see drawing	see drawing	see drawing	25 g	Fisheye
VCK 2/2,5	2-10-281	17 mm	5 mm	5,7 mm	16 g	Super wide angle
VCK 2/2,8	2-10-282	14 mm	4 mm	5,2 mm	16 g	Super wide angle
VCK 2/3,6	2-10-283	14 mm	3,5 mm	6,2 mm	16 g	Wide angle
VCK 2/4	2-10-284	14 mm	3,5 mm	5,5 mm	16 g	--
VCK 2/6	2-10-285	14 mm	4 mm	4,8 mm	16 g	--
VCK 2/8	2-10-286	14 mm	4 mm	5,7 mm	16 g	--
VCK 2/10	2-10-287	14 mm	4 mm	13 mm	16 g	Low distortion
VCK 2/12	2-10-290	13,9 mm	4 mm	6,9 mm	16 g	--
VCK 2/16	2-10-288	14 mm	3,5 mm	7 mm	16 g	Low distortion
VCK 2/25	2-10-289	see drawing	see drawing	see drawing	25 g	Low distortion

Entocentric lenses

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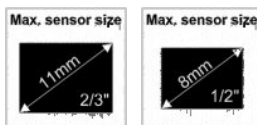
VCN series

Product features

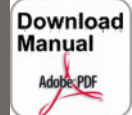
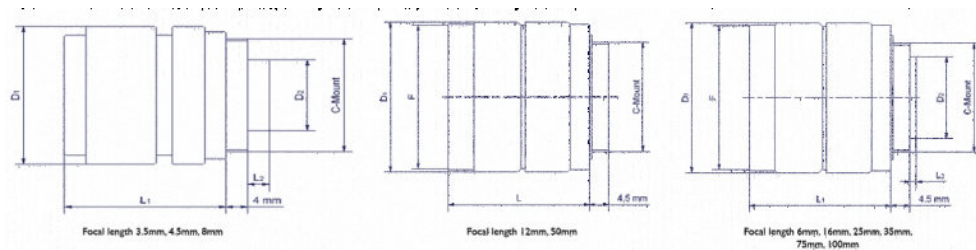
- Standard lenses with fixed focal length
- A wide range of lenses ($f = 3.5$ to 100 mm)
- Application for matrix and line cameras up to sensor diagonal/length 11 mm
- Manual, lockable focus and aperture adjustment
- Robust mechanical design
- C-mount (thread connection)



Options



Engineering drawing



Entocentric lenses

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VCN series

Properties

Optical properties

Spectral range 380...900nm / colour-corrected / fast lenses

Mechanical properties

environmental temperature -10°C ... 50°C

Optical data

Name	Order No.	Focal length [mm]	F-number	Object angle for 1" sensor (hor. x vert.) [°]	Object angle for ¾" sensor (hor. x vert.) [°]	Object angle for ½" sensor (hor. x vert.) [°]	Object angle for ¼" sensor (hor. x vert.) [°]
VCN 1,4/3,5	2-10-220	3,5	1,4 ... 16C	--	--	104 × 77	77 × 58
VCN 1,4/4,5	2-10-221	4,5	1,4 ... 16C	--	--	79 × 60	60 × 45
VCN 1,4/6	2-10-222	6	1,4 ... 16C	--	--	57 × 44	44 × 33
VCN 1,4/8	2-10-223	8	1,4 ... 16C	--	60 × 45	45 × 34	34 × 26
VCN 1,4/12	2-10-224	12	1,4 ... 16C	--	--	31 × 23	23 × 17
VCN 1,4/16	2-10-225	16	1,4 ... 16C	--	31 × 23	23 × 17	17 × 13
VCN 1,4/25	2-10-226	25	1,4 ... 16C	--	20 × 15	15 × 11	11 × 8,2
VCN 1,9/35	2-10-231	35	1,9 ... 16C	--	14 × 11	11 × 8	8 × 6
VCN 1,8/50	2-10-228	50	1,8 ... 16C	--	10 × 7,5	7,5 × 5,6	5,6 × 4,2
VCN 2,7/75	2-10-229	75	2,7 ... 16C	--	6,7 × 5,0	5,0 × 3,7	3,7 × 2,8
VCN 3,5/100	2-10-230	100	3,5 ... 16C	--	5,0 × 3,8	3,8 × 2,8	2,8 × 2,1

Mechanical data

Name	Order no.	Min. working distance	Max. diameter of lens D1	Diameter D2	Length from bearing surface L1	Length L2	Filter thread connection F	Weight
VCN 1,4/3,5	2-10-220	0,2 m	31 mm	16 mm	30 mm	4,5 mm	--	80 g
VCN 1,4/4,5	2-10-221	0,2 m	31 mm	16 mm	30 mm	4,1 mm	--	71 g
VCN 1,4/6	2-10-222	0,2 m	30 mm	19,5 mm	30 mm	2,6 mm	M27 × 0,5	80 g
VCN 1,4/8	2-10-223	0,2 m	30 mm	17 mm	30 mm	3,25 mm	M27 × 0,5	55 g
VCN 1,4/12	2-10-224	0,3 m	30 mm	--	34,5 mm	--	M27 × 0,5	75 g
VCN 1,4/16	2-10-225	0,4 m	30 mm	16 mm	24,5 mm	1,4 mm	M27 × 0,5	40 g
VCN 1,4/25	2-10-226	0,5 m	30 mm	16 mm	24,4 mm	1,6 mm	M27 × 0,5	50 g
VCN 1,9/35	2-10-231	0,5 m	30 mm	16 mm	28 mm	2 mm	M27 × 0,5	50 g
VCN 1,8/50	2-10-228	1 m	32 mm	--	37,3 mm	--	M30,5 × 0,5	55 g
VCN 2,7/75	2-10-229	1 m	32 mm	20,5 mm	42,5	2,4 mm	M30,5 × 0,5	66 g
VCN 3,5/100	2-10-230	1 m	32 mm	20,5 mm	44,2 mm	2,4 mm	M30,5 × 0,5	59 g

Important advice

Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of protection glass. You shall be screw-on first lens.

Care instruction

Clean easily dirty lens with an optics brush or cleaned air. Adherent contamination can be removed by using an optical cleaning tissue. Please use only alcohol as a solvent, do not use acetone or other chemicals.

Entocentric lenses

vicotar®

VCN series

Accessories

Order no.	Name	Description
2-91-206	UV M27 x 0,5	protection glass for entocentric lens-systems
2-91-207	UV M30,5 x 0,5	protection glass for entocentric lens-systems
2-91-217	IR M30.5 x 0,5	daylight-cutting-filter for entocentric lens-systems
2-91-216	IR M27 x 0,5	daylight-cutting-filter for entocentric lens-systems
2-91-226	Pol M27 x 0,5	polarizing filter, linear, for entocentric lens-systems
2-91-236	NF4 M27 x 0,5	neutral density, 4 x for entocentric lens-systems
2-91-233	NF4 M30 x 0,5	neutral density, 4 x for entocentric lens-systems
2-91-265	RF M27 x 0,5	red filter for entocentric lens-systems
2-91-267	RF M30,5 x 0,5	red filter for entocentric lens-systems
1-10-006	RK1220 adapter ring M27x0.5	to attach the RK1220 to entocentric lenses with filter thread M27x0.5

You can find a multiplicity of filters in the chapter accessories. Please order the filters separately.

High resolution, entocentric lenses

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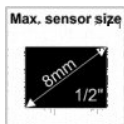
VCR series

Product features

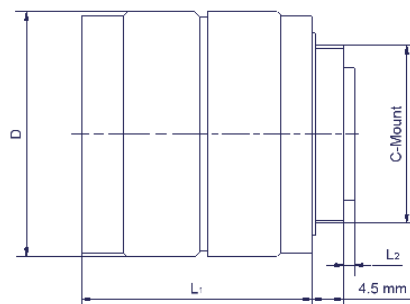
- High resolution lenses with fixed focal length
- Lineup of three models (f = 6 mm, 8 mm, 12 mm)
- Compactly design, very small weight and fast
- Manual aperture
- Manual, lockable focus adjustment
- C-mount (thread connection)




Options



Engineering drawing



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High resolution, entocentric lenses

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VCR series

Properties

Optical properties

Spectral range 380...900nm / colour-corrected

Mechanical properties

Environmental temperature -10°C ... 50°C

Optical data

Name	Order no.	Focal length [mm]	F-number	Object angle for 1/2" sensor (hor. x vert.) [°]	Object angle for 1/3" sensor (hor. x vert.) [°]	Object angle for 1/4" sensor (hor. x vert.) [°]
VCR 1,4/6	2-10-234	6	1,4 ... C	56 × 44	44 × 33	33 × 25
VCR 1,4/8	2-10-235	8	1,4 ... C	44 × 33	33 × 25	25 × 19
VCR 1,4/12	2-10-236	12	1,4 ... C	30 × 23	23 × 17	17 × 13

1/2" - 6,4 x 4,8 mm² | 1/3" - 4,8 x 3,6 mm² | 1/4" - 3,6 x 2,7 mm²

Name	Order no.	Min. working distance	Max. diameter of lens D1	Length from bearing surface L1	Length L2	Weight
VCR 1,4/6	2-10-234	0,3 m	35 mm	35 mm	1,3 mm	89 g
VCR 1,4/8	2-10-235	0,3 m	32 mm	35 mm	1,5 mm	71 g
VCR 1,4/12	2-10-236	0,3 m	35 mm	35 mm	1,2 mm	90 g

Important advice

Care instruction

Clean easily dirty lens with an optics brush or cleaned air. Adherent contamination can be removed by using an optical cleaning tissue. Please use only alcohol as a solvent, do not use acetone or other chemicals.

Accessories

Order no.	Name	Description
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