Vision Light Tech
creating optical solutions

LENSES FOR MACHINE VISION

- Focal Length 4.2mm to 75mm
- Standard-,
  2 MP-, 5 MP-Resolution
- Highest Contrast
- Fast Aperture
- Extremly Robust
- Compact Design
- Fixing Screws
- Minimized Distorsion
- Minimized Vignetting

RICOH
imagine. change.

FIXED FOCAL LENGTH, MANUAL IRIS
with Locking Screws

Part No.	Designation	Format size	Mount	Focal length	Iris range	M. O. D.	Horizontal angle of view	Filter size in mm	Specials
FL-HC0416X-VG	H416 (KP)	1/2"	C	4.2mm	1.6 - C	0.2m	86.8°	-	fixed focus
FL-HC0612A-VG	H612A (KP)	1/2''	C	6mm	1.2 - C	0.2m	56.9°	40.5	
FL-HC1212B-VG	H1212B (KP)	1/2''	C	12mm	1.2 - 22	0.2m	30.2°	27	compact, 30mm Ø
FL-CC0418DX-VG	C418DX (KP)	2/3''	C	4.8mm	1.8 - C	0.3m	96.4°	-	fixed focus
FL-CC0815B-VG	C815B (KP)	2/3''	C	8.5mm	1.5 - C	0.2m	56.5°	40.5	
FL-CC1614A-VG	C1614A (KP)	2/3''	C	16mm	1.4 - 22	0.3m	30.7°	27	compact, 30mm Ø
FL-BC1214D-VG	B1214D-2 (KP)	1''	C	12.5mm	1.4 - C	0.3m	54°	40.5	
FL-BC1218A-VG	B1218A (KP)	1''	C	12.5mm	1.8 - C	0.3m	55.5°	40.5	
FL-BC2514D-VG	B2514D (KP)	1''	C	25mm	1.4 - 22	0.3m	30°	27	compact, 30mm Ø
FL-BC2518-VG	B2518 (KP)	1''	C	25mm	1.8 - C	0.6m	28.2°	40.5	
FL-BC5014A-VG	B5014A (KP)	1''	C	50mm	1.4 - C	1m	14.4°	46	

(KP): 3 locking screws on each of the aperture and focus rings plus 2 optional thumb screws

FIXED FOCAL LENGTH, MANUAL IRIS
Megapixel, with Locking Screws

Part No.	Designation	Format size	Mount	Focal length	Iris range	M. O. D.	Horizontal angle of view	Filter size in mm	Specials
HIGH-RESOLUTION, FOR STANDARD, IP AND MEGAPIXEL CAMERAS									
FL-HC0614-2M	H614-MQ (KP)	1/2"	C	6mm	1.4 - 16	0.20m	57.4°	30.5	compact, 32mm Ø
FL-HC1214-2M	H1214-M (KP)	1/2"	C	12mm	1.4 - 16	0.25m	28.9°	27.0	compact, 29.5mm Ø
FL-CC1614-2M	C1614-M (KP)	2/3"	C	16mm	1.4 - 16	0.25m	31°	27.0	compact, 29.5mm Ø
FL-CC2514-2M	C2514-M (KP)	2/3"	C	25mm	1.4 - 16	0.25m	20°	27.0	compact, 29.5mm Ø
FL-CC3516-2M	C3516-M (KP)	2/3"	C	35mm	1.6 - 16	0.40m	14.8°	27.0	compact, 29.5mm Ø
FL-CC5028-2M	C5028-M (KP)	2/3"	C	50mm	2.8 - 22	0.90m	10.1°	27.0	compact, 29.5mm Ø
FL-CC7528-2M	C7528-M (KP)	2/3"	C	75mm	2.8 - 32	0.70m	6.9°	30.5	compact, 34mm Ø

(KP): 3 locking screws on each of the aperture and focus rings plus 2 optional thumb screws

The M series had been developed as an extension of the existing series of lenses for image processing applications.

The overall image quality is kept high through many aspects. The picture geometry has been enhanced by reduced distortion and the lens resolution has been designed around the requirements of mega pixel sensors.

The contrast of the image boarders exceeds the standard requirement many times over due to our new applied manufacturing technologies. These lenses are purposely designed to maximise picture performance at short distances. Also the lens coatings set new standards in quality and are ideal for taking images of particularly high-contrast scenes or intensely illuminated high-speed exposures.

FIXED FOCAL LENGTH, MANUAL IRIS
5 Megapixel, with Locking Screws

Part No.	Designation	Format size	Mount	Focal length	Iris range	M. O. D.	Horizontal angle of view	Filter size in mm	Specials
HIGH-RESOLUTION, FOR STANDARD, IP AND MEGAPIXEL CAMERAS									
FL-CC0814-5M	C814-5M (KP)	2/3"	C	8mm	1.4 - 16	0.1m	57.8°	58	
FL-CC1614-5M	C1614-5M (KP)	2/3"	C	16mm	1.4 - 16	0.1m	30.8°	40.5	
FL-CC2514-5M	C2514-5M (KP)	2/3"	C	25mm	1.4 - 16	0.1m	19.9°	40.5	

(KP): 3 locking screws on each of the aperture and focus rings plus 2 optional thumb screws

This series of high-res fixed focal lenses are designed to match the requirements of highly developed machine vision systems. The lens isn't only optimized for highest image quality, but also for heavy duty industrial operation.

Also suitable for use with high megapixel CCTV cameras, the new lenses are ideal when using digital zoom. This allows the camera to view a wider area but still have the function of zooming in to get close up detail within the captured image.

These lenses are characterized by:

- Highest Resolution and Contrast
- Reduced Distortion down to a Minimum
- High Light Transmission

LINE-SCAN LENSES

Part No.	Designation	Format size	Mount	Focal length	Iris range	Working distance	Horizontal angle of view	Filter size in mm
COMPACT HIGH-RESOLUTION, UP TO 5 MEGAPIXEL Locking Screw for Focus and Iris, Format 1.1"								
FL-CC5028A-5M02	C5028A-M02	1.1"	C	50.0mm	2.8 - 22	242mm - 361mm		52
FL-CC5028A-5M035	C5028A-M035	1.1"	C	50.0mm	2.8 - 22	146mm - 201mm		52
HIGH-RESOLUTION Locking Screw for Focus, Format 45mm								
FL-YFL3528	YF3528	45mm	F	35mm	2.8 - 22	0.19m - ∞	64.40°	62
FL-YFL5028	YF5028	45mm	F	50mm	2.8 - 22	0.25m - ∞	47.60°	62
FL-YKL3528	YK3528	45mm	K	35mm	2.8 - 22	0.19m - ∞	64.40°	62
FL-YKL5028	YK5028	45mm	K	50mm	2.8 - 22	0.25m - ∞	47.60°	62
COMPACT HIGH-RESOLUTION, UP TO 5 MEGA PIXEL Locking Screw for Focus and Iris, Format 45mm								
FL-YFL5028A-02	YF5028A-02	45mm	F	50mm	2.8 - 22	242mm - 361mm		52
FL-YFL5028A-035	YF5028A-035	45mm	F	50mm	2.8 - 22	146mm - 201mm		52

ZOOM LENSES, MANUAL IRIS

Part No.	Designation	Format size	Mount	Focal length	Iris range	M. O. D.	Horizontal angle of view	Filter size in mm	Specials
6x MANUAL ZOOM LENSES									
FL-HC6Z0810-VG	H6Z810	1/2''	C	8 - 48mm	1 - 22	0.75m	43.3° - 7.7°	55	*
FL-CC6Z1218-VG	C6Z1218	2/3''	C	12.5 - 75mm	1.8 - 22	1m	38.8° - 6.7°	49	
FL-CC6Z1218A-VG	C6Z1218 (FA)	2/3''	C	12.5 - 75mm	1.8 - 22	1m	38.8° - 6.7°	49	*

* with Locking Screws

FIXED FOCAL LENGTH, MANUAL IRIS FOR UV-LIGHT

Part No.	Designation	Format size	Mount	Focal length	Iris range	M. O. D.	Horizontal angle of view	Filter size in mm	Specials
FL-BC2528-VGUV	B2528-UV	1"	C	25mm	2.8 - 16	0.23m	29.7°	25.5	compact, 30mm Ø
FL-BC7828-VGUV	B7838-UV	1"	C	78mm	3.8 - 16	0.44m	9.5°	49	

EXTENSION TUBES

Part No.	Designation	Description
FP-RGZ5	EXT-0,5	0.5mm matt black (antireflex)
FP-RG01	EXT-1	1mm matt black (antireflex)
FP-MA	ZW-R5	5mm chrome-plated
FP-RG05	EXT-5	5mm matt black (antireflex)
FP-RG10	EXT-10	10mm matt black (antireflex)
FP-RG20	EXT-20	20mm matt black (antireflex)
FP-RG40	EXT-40	40mm matt black (antireflex)
FP-RGST	EX-C6	extension tube set matt black (antireflex), 6 pieces with 0.5 mm, 1mm, 5mm, 10mm, 20mm, 40 mm

ACCESSORIES

Part No.	Designation	Description
FP-EX2	2-EX	focal length doubler for C-Mount lenses
FP-MA	ZW-R5	C-CS-Mount Adapter
FP-RR27	RR-27	reversing ring for a filter thread of 27mm
FP-MUVG	MUM-2	Macro Focus Mount - 2mm for H1212B (KP), C1614A (KP), B2514D (KP)
FP-MU2M	MUM-2M	MUM-2M, Macro Focus Mount 2mm pull-out extension H1214-M (KP), C1614-M (KP), C2514-M (KP), C3516-M (KP) and C5028-M (KP)

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