

# Lenses: Ultra HD Megapixel Quick Selection Guide



**BOSCH**  
Invented for life



Commercial type number	LFF-8012C-D35	LFF-8012C-D50	LFF-8012C-D75	LVF-8008C-P0413
Image format	2/3-inch	2/3-inch	2/3-inch	1/1.8-inch
Optical resolution	-	-	-	-
Zoom	N.A	-	-	-
Focal length	35mm	50 mm	75 mm	4 – 13 mm
Iris range (visible)	F1.8, F2.8, F4, F8, F16	F2, F2.8, F4, F8, F16	F1.8, F2, F2.8, F4, F8, F16, F22	F1.5 to close
IR iris range	same as visible	same as visible	same as visible	same as visible
Minimal object distance	1 m (3.3 ft)	2 m (6.56 ft)	0.9 m (3.3 ft)	0.3 m (1 ft)
Back focus length (values in air)	14.3 mm (0.56 in)	14.8 mm (0.58 in)	24.43 mm (0.96 in)	10.209 mm
Flange back distance (values in air)	17.526 mm	17.526 mm	17.526 mm	12.5 mm
Lens mount	C-mount	C-mount	C-mount	CS-mount
Dimensions	Ø 53 x 47 mm	Ø 54 x 47 mm	Ø 51 x 76 mm	Ø 65 x 93 mm
Weight	149 g (0.33 lb)	155 g (0.34 lb)	305 g (0.67 lb)	172 g (0.38 lb)
Temperature range	-10°C to+50°C (+14°F to +122°F)	-10°C to+50°C (+14°F to +122°F)	-10°C to+50°C (+14°F to +122°F)	-10°C to+50°C (+14°F to +122°F)
IR corrected	yes	yes	No	yes
Iris control	manual	manual	manual	P-iris stepping motor (120 steps)
Zoom control	-	-	-	manual
Focus control	manual	manual	manual	manual
Angle of view (HxV)	12MP mode (4:3): 9.8°x7.4° 4K UHD mode (16:9): 9.4°x5.3°	12MP mode (4:3): 6.8°x5.1° 4K UHD mode (16:9): 6.6°x3.7°	12MP mode (4:3): 4.7°x3.6° 4K UHD mode (16:9): 4.5°x2.6°	12MP mode (4:3): Wide: 90°x67°; Tele: 29°x21° 4K UHD mode (16:9): Wide: 86°x48°; Tele: 27°x15°
MTF on-axis (lp/mm)	NA	NA	NA	NA
MTF off-axis (lp/mm)	NA	NA	NA	NA
Compatible cameras	DINION IP ultra 8000 MP DINION IP starlight 8000 MP DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP ultra 8000 MP DINION IP starlight 8000 MP DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP ultra 8000 MP DINION IP starlight 8000 MP DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP ultra 8000 MP DINION IP starlight 8000 MP

# Lenses: Megapixel Varifocal Quick Selection Guide



Commercial type number	LVF-5005C-S4109	LVF-5005N-S1250	LVF-5003N-S3813	LVF-5005C-S1803	LVF-5005C-S0940
Image format	1/1.8-inch	1/1.8-inch	1/2-inch	1/2.5-inch (Sensor diagonal 7.2 mm)	1/2.5-inch (Sensor diagonal 7.2 mm)
Optical resolution	5 Megapixels	5 Megapixels	3 Megapixels	5 Megapixels	5 Megapixels
Zoom	-	-	-	-	-
Focal length	4.1 – 9 mm	12 – 50 mm	3.8 to 13 mm	1.8 – 3 mm	9 – 40 mm
Iris range (visible)	F1.6 to F8	F1.8 to T360	F1.4 to F8	F1.8 to F7.4	F1.5 to F7.4
IR iris range	same as visible	-	same as visible	same as visible	same as visible
Minimal object distance	0.3 m (1 ft)	0.8 m (2.63 ft)	0.3 m (1 ft)	0.5 m (1.64 ft)	2.5 m (8.2 ft)
Back focus length (values in air)	12.72 mm (wide), 19.94 mm (tele)	10.19 mm (wide), 10.12 mm (tele)	10.6 mm (wide), 21.1 mm (tele)	8.3 mm (0.33 in)	8.6 mm (wide); 13.19 mm (tele)
Flange back distance (values in air)	12.5 mm	17.526 mm	17.526 mm	12.5 mm	12.5 mm
Lens mount	CS mount	C mount	C mount	CS mount	CS mount
Dimensions	Ø 62.9 mm (excl. focus and zoom knobs) x 66.6 mm (excluding flange)	Ø 52.4 mm x 89.3 mm	-	Ø 50 mm x 49.3 mm	Ø 55 mm x 49.3 mm
Weight	130 g (0.29 lb)	175 g (0.386 lb)	-	63 g (0.134 lb)	88 g (0.19 lb)
Temperature range	-10°C to +50°C (+14°F to +122°F)	-10°C to +50°C (+14°F to +122°F)	-10°C to +50°C (+14°F to +122°F)	-10°C to +50°C (+14°F to +122°F)	-10°C to +50°C (+14°F to +122°F)
IR corrected	yes	yes	no	yes	yes
Iris control	4-pin SR-Iris	4-pin, DC control	4-pin SR-Iris	4-pin SR-Iris	4-pin SR-Iris
Zoom control	manual	manual	-	manual	manual
Focus control	manual	manual	-	manual	manual
Angle of view (HxV)	4:3 mode: 100° x 74° Wide; 45° x 33° Tele 1/3-inch sensor 16:9: 73° x 41° Wide; 33° x 19° Tele 1/2.7-inch sensor 16:9: 80° x 44° Wide; 37° x 21° Tele 1/1.8-inch sensor 16:9: 101° x 56° Wide; 46° x 26° Tele	4:3 mode: 133° x 25° Wide; 8° x 6° Tele 1/3-inch sensor 16:9: 24° x 14° Wide; 6° x 3° Tele 1/2.7-inch sensor 16:9: 27° x 16° Wide; 6.7° x 3.8° Tele 1/1.8-inch sensor 16:9: 33° x 19° Wide; 8.3° x 4.7° Tele	½ in. 4:3 mode: 97.5° x 71.8° Wide; 28.3° x 21.3° Tele 1/2.7 in. 16:9 mode: 87.0° x 47.7° Wide; 25.5° x 14.4° Tele 1/3 in. 16:9 mode: 78.6° x 43.3° Wide; 23.2° x 13.1° Tele	4:3 mode: 115° x 99° Wide; 88° x 71° Tele 1/3-inch sensor 16:9: 109 x 82° Wide; 82° x 54° Tele 1/2.7-inch sensor 16:9: 116° x 84° Wide; 89° x 57° Tele	4:3 mode: 36° x 27° Wide; 8.5° x 6.3° Tele 1/3-inch sensor 16:9: 33° x 17° Wide; 7.7° x 4.4° Tele 1/2.7-inch sensor 16:9: 37° x 20° Wide; 8.6° x 4.8° Tele
MTF on-axis (lp/mm)	NA	NA	NA	NA	NA
MTF off-axis (lp/mm)	NA	NA	NA	NA	NA
Compatible cameras	DINION IP starlight 8000 MP DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP 7000 KT DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP starlight 8000 MP DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP 7000 KT DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP 7000 KT DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP 7000 KT DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD	DINION IP dynamic 7000 HD DINION IP dynamic 7000 KIT DINION IP 7000 HD DINION IP 7000 KT DINION IP starlight 7000 HD DINION IP starlight 7000 KIT DINION IP 5000 HD DINION IP 5000 MP DINION IP 4000 HD