
Lenses by PENTAX

PENTAX offers a wide range of lenses for various applications as e.g. industrial quality control. EURECA Messtechnik GmbH has focused on the support and sales of lenses for measurement as well as surveillance applications. All other products by PENTAX are also available on request.

This document provides an overview about the following lens types:

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The PENTAX department for CCTV products was hived off 1951 as COSMICAR Lens division out of the ASAHI OPTICAL CO. and started 1961 with the sales of CCTV lenses. In 2002 the brand COSMICAR/PENTAX was transformed into the PENTAX CCTV lens division, which focused on the development, production and sales of high performance lenses for applications in security and image processing.

Used are the latest knowledge in combination with precise manufacturing procedures. PENTAX provides a wide range of different CCDT lenses, which can meet nearly all requirements. The performance, quality and equipment of each lens fulfill the highest standards in surveillance and industrial quality control.

The products are ISO 9001 and ISA 14001 certified, in order to guarantee highest quality and environmental compatibility.

Lenses with fixed focal length and manual iris

The lenses of this group provide a fixed focal length and are mainly used in applications with a fixed object distance. Examples for this are the inspection of goods in the industrial quality control or the scanning of documents.

Some lenses provide fixing screws for applications in the industrial image processing. The lenses of the "M"-series were specially developed for the new high resolution camera types.



Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Remarks				
TS212A	1/3	CS	2,8	1,2 – C	94°17'	0,3	-	High resolution				
TS412A			4,0		63°53'	0,2						
TS812A			8,0		32°20'	0,3						
HS316A	1/2	CS	3,7	1,6 – C	93°40'	0,2	30,5					
H416		C	4,2	1,6 – C	86°46'	0,2	-	Fixed focus				
H416 (KP)								Fixed focus, with fixing screws				
HS614B		CS	6,0	1,4 – C	57°49'	0,3	30,5					
H612A (TH)		C	6,0	1,2 – C	58°00'	0,2	40,5	With fixing screws				
HS1214D		CS	12,0	1,4 – C	29°25'	0,8	30,5					
H1212B (TH)		C	12,0	1,2 – 22	30°11'	0,2	27	Small, 30mm Ø, With fixing screws				
C418DX		2/3	C	4,8	1,8 – C	96°22'	0,3	-	Fixed focus			
C418DX (TH)	Fixed focus, with fixing screws											
C814 (TH)	8,0			1,4 – C	58°40'	0,2	40,5	Highes quality, With fixing screws				
C815B (TH)								With fixing screws				
C1614A	16,0			1,4 – 22	30°43'	0,3	27	Small, 30mm Ø				
C1614A (TH)								Small, 30mm Ø, With fixing screws				
B618DX (KA)	1	C	6,5	1,8 – C	97°55'	0,2	-	Fixed focus, with fixing screws				
B1214D-2 (KA)			12,5	1,4 – C	53°57'	0,3	40,5	With fixing screws				
B1218A (TH)			12,5	1,8 – C	55°29'			With fixing screws				
B2514D			25,0	1,4 – 22	29°42'	0,3	27,0	Small, 30mm Ø				
B2514D (TH)								Small, 30mm Ø With fixing screws				
B2518 (TH)			25,0	1,8 – C	28°14'	0,6	40,7	With fixing screws				
B5014A			50,0	1,4 – C	14°25'	1,0	46	With fixing screws				
B5014A (KA)								With fixing screws				
B5018A-3 (TH)								50,0	1,8 – C	14°24'	40,5	With fixing screws
B7514C (KA)								75,0	1,4 – C	9°47'	1,2	58

High resolution, for the industrial image processing

The "M"-series was developed as extension to the already existing lenses of this group. The optical performance was improved and the image geometry was optimized by a smaller distortion. The resolution fullfills the requirements of high performance cameras with 2 Megapixel (up to 8 Megapixel with the C7528-M (KP)). Together with the lens three fixing screws for iris and focus are delivered. Further two milled screws are included.

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Remarks
H1214-M (KP)	1/2	C	12,0	1,4 – 16	28°57'	0,25	27	Small, 29,5mm Ø
C1614-M (KP)	2/3		16,0		30°58'			
C2514-M (KP)			25,0		20°00'			
C3516-M (KP)			35,0	1,6 – 16	14°46'	0,40		
C5028-M (KP)			50,0	2,8 – 22	10°03'	0,90		
C7528-M (KP)			75,0	2,8 – 32	6°54'	0,70	30,5	New!, small, 34,0mm Ø For 8-Megapixel cameras

Lenses for line scan cameras

These lenses were especially developed for line scan cameras with a large sensor length (up to 45mm). They provide a high optical performance without large vignetting also out of the center of the lens.

Available are types for different camera mounts, to be used with image processing cameras (PENTAX K bajonett and NIKON F bajonett). All lenses provide a fixing screw for the focus.



Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Remarks
YK3528	45	K	35,0	2,8 – 22	64°24'	0,19	62	Fixing screw for focus
YF3528		F						
YK5028		K	50,0		47°36'	0,25		
YF5028		F						

UV lenses

These lenses were specially developed for applications in the UV spectral range. Since standard glass materials of common lenses are not transparent for UV light, these products are made out of lenses based on quartz. Due to this, UV lenses can be used with wavelengths down to 200nm.

Possible applications are e.g. medical and criminal investigations (for example detection of counterfeits) or mineralogical measurements in the nm range. Also the inspection of transparent materials is possible with UV light.



Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Remarks
B2528-UV	1	C	25,0	2,8 – 16	29°41'	0,23	25	small, 30,0mm Ø
B7838-UV			78,0	3,8 – 16	9°30'	0,44	49	
H2520-UVM (KP)	1/2		25,0	2,0 – 16	14°37'	0,25	27	small, 29,5mm Ø

The H2520-UVM (KP) provides 3 fixing screws for iris and focus and is delivered with 2 additional milled screws.

Lenses with fixed focal length, auto iris voltage controlled

The lenses of this group provide a fixed focal length and are mainly used in applications with a fixed object distance. Examples for this are the inspection of goods in the industrial quality control or the scanning of documents.

The versions for standard applications with manual iris are also available with a voltage controlled iris.



Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	
TS212E (HK)	1/3	CS	2,8	1,2 – 200	94° 17'	0,3	-	DC	
TS212E (WK)								VS	
TS412E (HK)			4,0	1,2 – 200	65° 53'	0,2	-	DC	
TS412E (WK)								VS	
TS812E (HK)			8,0	1,2 – 200	33° 20'	0,2	-	DC	
TS812E (WK)								VS	
HS316E (HK)	1/2	CS	3,7	1,6 – 300	93° 40'	0,2	34	DC	
HS316E (WK)								VS	
HS614E (HK)			6,0	1,4 – 300	57° 49'	0,2	34	DC	
HS614E (WK)								VS	
HS1214E (HK)			12,0	1,4 – 300	29° 25'	0,5	34	DC	
HS1214E (WK)								VS	
H416E (HK)		C	4,2	1,6 – 360	86° 47'	0,2	-	DC	
H416E (WK)								VS	
H612E (HK)			6,0	1,2 – 360	56° 55'	0,2	43	DC	
H612E (WK)								VS	
H1212E (HK)			12,0	1,2 – 360	30° 11'	0,3	43	DC	
H1212E (WK)								VS	
C418E (HK)		2/3	C	4,8	1,8 – 360	95° 24'	0,3	-	DC
C418E (WK)									VS
C814E (HK)				8,0	1,4 – 360	58° 15'	0,2	43	DC
C814E (WK)									VS
C1614E (HK)				16,0	1,4 – 360	30° 46'	0,5	49	DC
C1614E (WK)									VS
B1214E (HK)	1	C	12,5	1,4 – 360	54° 02'	0,3	49	DC	
B1214E (WK)								VS	
B2514E (HK)			25,0	1,4 – 360	28° 56'	0,9	43	DC	
B2514E (WK)								VS	
B5018E (HK)			50,0	1,8 – 360	14° 24'	1,0	43	DC	
B5018E (WK)								VS	
B7518AE (HK)	75,0	1,8 – 360	9° 38'	2,5	43	DC			
B7518AE (WK)						VS			

Highest aperture F2000 / F1000

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks
B2514E-2000	1	C	25,0	1,4 – 2000	28° 56'	0,9	43	VS	
B5018E-1000			50,0		14° 24'	1,0			
B7518AE-1000			75,0	9° 38'	2,5				

Fixed focal length, auto iris, high resolution

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks
H612E-M (C)	1/2	C	6,0	1,2 – 200	58° 41'	0,12	40,5	VS	
H912E-M (C)			9,0		43° 54'	0,20			

Possibility of remote iris control

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks
H416ER	1/2	C	4,2	1,6 – 360	86°47'	0,2	-	VS	Fixed focus
H612ER			6,0	1,2 – 360	56°55'		0,3		43
H1212ER			12,0		30°11'				
C418ER	2/3		4,8	1,8 – 360	95°24'	0,3			-
C814ER			8,0	1,4 – 360	58°15'	0,2	43		
C1614ER			16,0		30°46'	0,5			
B1214ER	1		12,5	1,4 – 360	54°02'	0,3	43		
B2514ER			25,0		28°56'	0,9			
B5018ER			50,0	1,8 – 360	14°24'	1,0	49		

Fixed focal length, auto iris, IR coated at 850nm

When using cameras with high sensitivity in the IR the quality of the pictures in the blue is sometimes not good enough. Blue objects seem to be of low colour saturation and unsharp. Better results can be obtained with using IR coated lenses. These lenses provide a special coating, so that the working range is optimized for 850nm.

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks
H416E IR (SN)	1/2	C	4,2	1,6 – 360	86°47'	0,2	-	DC	Fixed focus
H416E IR (OS)								VS	
H612E IR (SN)			6,0	1,2 – 360	56°55'	0,3	43	DC	
H612E IR (OS)								VS	
H1212E IR (SN)			12,0	30°11'	0,3	43	DC		
H1212E IR (OS)							VS		
C418E IR (SN)	2/3		4,8	1,8 – 360	95°24'	0,3	-	DC	Fixed focus
C418E IR (OS)								VS	
C814E IR (SN)			8,0	1,4 – 360	58°15'	0,2	43	DC	
C814E IR (OS)	VS								
C1614E IR (SN)	16,0	30°46'	0,5	43	DC				
C1614E IR (OS)					VS				
B2514E IR (SN)	1	25,0	28°56'	0,9	43	DC			
B2514E IR (OS)						VS			

Pin hole lenses

These lenses provide a very small front pupil. With this they are able to capture images even through small holes. This can be of advantage in surveillance applications as well when inspecting goods.

The small aperture results in a larger focal depth, which means that objects are imaged sharp in a quite large distance range. One disadvantage of these lenses is however the fact, that they need longer integration times or a brighter object illumination compared with the use standard lenses.



Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks
TS420P	1/3	CS	4,0	2,0 – C	68°28'	0,3	-	Manual	straight
TS420PE (HK)				2,0 – 64				DC	
H620P	1/2	C	6,2	2,0 – C	56°07'	0,3	-	Manual	
H620PE (HK)				2,0 – 300				DC	
H620PE (WX)				VS					

Vario lenses

With vario lenses the focal length can be adjusted within a certain range, which changes also the angle of view. The range in which this is possible is normally not so large as with zoom lenses. In addition the focal plane shifts when the focal length is changed, so that a manual correction of the focus might be necessary. Due to this fact vario lenses are often used in a similar way as fixed focus lenses and the angle of view is adjusted once before use.

Because of their rather simple internal structure vario lenses are normally less expensive than zoom lenses or even as respective lenses with fixed focal length.



Fisheye vario lenses

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks
TS2V114E (HK)	1/3	CS	1,6 – 3,4	1,4 – 64	180°00' – 89°33'	0,5	-	DC	

This fisheye vario lens provides a very large angle of view. The internal structure of the lens does however not allow a correction of the spatial distortion. This lens is suitable for observing e.g. rooms without a gap. The flat front pupil allows the lens to be mounted very close behind glass plates without limiting the angle of view.

Vario lenses, DC iris control

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
TS2V314CED (HK)	1/3	CS	3,5 – 8,0	1,4 – 300	82°30' – 35°24'	0,35	-	High resolution New!
TS4V214ED (DG)			2,8 – 12,0	1,4 – 360	93°17' – 23°30'	0,25		
TS10V518AED (HK)			5,0 – 50,0	1,8 – 360	50°00' – 05°31'	0,60		New!

Day & night vario lenses, aspheric, IR corrected

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
TS3V310	1/3	CS	3,0 – 8,0	1,0 – C	93°13' – 35°16'	0,3	-	manual
TS3V310ED (HK)				1,0 – 360				DC
TS3V310E (WX)								VC

These products provide a special form of the internal lenses, which results in a higher aperture with more light on the CCD/CMOS sensor. Because of this the captured images are noiseless, sharper and provide a better colour reproduction. Further all lenses are IR corrected.

Day & night vario lenses, IR corrected

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
TS2V214AED (HK)	1/3	CS	2,8 – 6,0	1,4 – 300	96°42' – 47°02'	0,3	-	DC
TS2V214AE (WX)								VS
HS2V616ED (HK)	1/2	CS	6,0 – 2,0	1,6 – 300	65°17' – 30°49'	1,0	30,5	DC
HS2V616E (WX)								VS

All lenses of this group are IR corrected, which results in an unaltered colour reproduction when used under daylight conditions. In addition there is no focus shift when using IR lightings at night.

Zoom lenses

Similar to vario lenses zoom lenses allow the adjustment of the focal length in a certain range. This range is here however larger than with vario lenses. In addition the focal plane does not change, so that the focus has not to be adjusted.

Often zoom lenses are provided with motors for controlling the focal length and/or iris. For applications with an automatic positioning of these motors some lenses are available with internal potentiometers.



Manual zoom lenses

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remarks	
TS6ZE (DC)	1/3	CS	6,3 – 38,0	1,2 – 512	41°07' – 7°26'	1,8	49	DC		
TS6ZE								VS		
H6Z810	1/2	C	8,0 – 48,0	1,0 – 22	43°16' – 7°44'	1,2	55	Man	With fixing sc.	
H6Z810S				1,0 – 720		0,75		Man	With fixing sc.	
H6ZBE				1,2		VS				
C6Z1218	2/3	C	12,5 – 75,0	1,8 – 22	38°46' – 6°40'	1,0	49	man		
C6Z1218 (FA)				1,8 – 720				38°43' – 6°40'	Man	With fixing sc.
C6ZE									VS	

Zoom lenses, 2 motors, auto iris, large aperture

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control	Remark
H6ZBME-5P IR (DC)	1/2	C	8,0 – 48,0	1,0 – 720	43°14' – 7°44'	1,2	55	DC	IR
H6ZBME-5P (DC)									

The lens H6ZBME-5P IR (DC) with IR coating is a special development for outdoor surveillance applications with IR lighting. In the IR range the transmission was doubled by a special coating, which increases the view range of the camera, or reduces the amount of needed IR light for illumination. Further this special coating reduces the focal shift when switching from daylight to IR light. Last but not least the lens provides an internal potentiometer.

Day & night zoom lens, 2 motors, auto iris with potentiometer and iris remote control

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
H18ZME-5F (WX)	1/2	C	8,0 – 144,0	1,6 – 720	45°06' – 2°33'	4,0	-	VS
H18ZME-5F (ST)								

This day&night zoom lens (super achromat) provides an optical correction in the visible spectral range up to a wavelength of 900nm. So it is suitable for day&night cameras, IR sensitive cameras, as well as standard video systems. Under daylight conditions and with IR lighting this lens produces sharp and clear pictures. At daylight the internal ND filter absorbs disturbing IR light, which results in correct reproduced colours.

Zoom lenses, 2 motors, auto iris

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control		
TS6ZME-5 (DC)	1/3	CS	6,3 – 38,0	1,2 – 360	41°07' – 7°26'	1,8	49	DC		
TS6ZME-5 (WX)								VS		
TS10ZME-5 (DC)			5,8 – 58,0	1,2 – 360	44°04' – 4°47'	1,8	49	49	DC	
TS10ZME-5 (WX)									VS	
TS10ZME-5P (DC)			6,0 – 90,0	1,2 – 430	43°29' – 3°05'	1,5	62	62	DC	
TS10ZME-5P (WX)									VS	
TS15ZAMED-5 (DC)			9,0 – 180,0	1,2 – 510	30°17' – 1°32'	2,2	95	95	DC	
TS15ZAMED-5 (WX)									VS	
TS20ZAMED-5P (DC)			8,0 – 48,0	1,4 – 360	42°53' – 7°41'	1,8	49	49	DC	
TS20ZAMED-5P (WX)									VS	
TS20ZAME-5 (DC)			8,0 – 48,0	1,0 – 720	43°14' – 7°44'	1,2	55	55	DC	
TS20ZAME-5 (WX)									VS	
TS20ZAME-5F (WX)			7,5 – 75,0	1,4 – 360	45°03' – 5°00'	1,8	58	58	DC	
TS20ZAME-5F (WX)									VS	
HS6ZME-5 (DC)			1/2	C	8,0 – 48,0	1,0 – 720	43°14' – 7°44'	1,2	55	DC
HS6ZME-5 (WX)										VS
HS10ZME-5 (DC)	1/2	CS	7,5 – 75,0	1,4 – 360	45°03' – 5°00'	1,8	58	DC		
HS10ZME-5 (WX)								VS		
H6ZBME-5 (DC)	1/2	C	7,5 – 75,0	1,2 – 512	45°38' – 4°59'	1,8	62	DC		
H6ZBME-5 (WX)								VS		
H6ZBME-5P (DC)	1/2	C	8,0 – 120,0	1,6 – 1000	43°22' – 3°05'	1,5	6 2	DC		
H6ZBME-5P (WX)								VS		
H6ZBME-5F (WX)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC		
H6ZBME-5F (WX)								VS		
H10ZME-5 (DC)	2/3	C	12,5 – 75,0	1,8 – 720	38°43' – 6°40'	1,0	49	DC		
H10ZME-5 (WX)								VS		
H10ZME-5P (DC)	1/2	C	7,5 – 75,0	1,2 – 512	45°38' – 4°59'	1,8	62	DC		
H10ZME-5P (WX)								VS		
H10ZME-5F (WX)	1/2	C	8,0 – 120,0	1,6 – 1000	43°22' – 3°05'	1,5	6 2	DC		
H10ZME-5F (WX)								VS		
H15ZAMED-5 (DC)	1/2	C	8,0 – 120,0	1,6 – 1000	43°22' – 3°05'	1,5	6 2	DC		
H15ZAMED-5 (WX)								VS		
H15ZAMED-5P (DC)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC		
H15ZAMED-5P (WX)								VS		
H15ZAME-5F (WX)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC		
H15ZAME-5F (WX)								VS		
H20ZAMED-5 (DC)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC		
H20ZAMED-5 (WX)								VS		
H20ZAMED-5P (DC)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC		
H20ZAMED-5P (WX)								VS		
H20ZAME-5F (WX)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC		
H20ZAME-5F (WX)								VS		
C6ZAME-5 (WX)	2/3	C	12,5 – 75,0	1,8 – 720	38°43' – 6°40'	1,0	49	VS		
C6ZME-5P (WX)								VS		

You can find closer explanations about the different versions (indicated by the respective suffix in the designation code) on the last page of this overview.

Zoom lenses, 2 motors, auto iris with iris remote control via ADC

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
TS15ZAME-5F (ST)	1/3	CS	6,0 – 90,0	1,2 – 430	43°29' – 3°05'	1,5	62	VS
TS15ZAME-5FH (ST)								
TS20ZAME-5F (ST)								
H10ZME-5F (ST)	1/2	C	7,5 – 75,0	1,2 – 512	45°38' – 5°00'	1,8	62	
H15ZAME-5F (ST)								
H15ZAME-5FH (ST)			8,0 – 120,0	1,6 – 1000	43°22' – 3°05'	1,5	62	
H18ZME-5F (ST)								
H20ZAME-5F (ST)			12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	95	
H20ZAME-5FH (ST)								
H20ZAME-5FK (ST)			12,0 – 660,0	4 – 360 4 – 1500	31°39' – 0°34'	5,0	105	
H55ZME-5F (ST)								
H55ZME-5F (ZF)								

For the remote control of the iris these lenses provide a D/A converter, which is operated directly with a 12V voltage (manual remote and ground). By changing the polarity, the iris is opened or closed. When the iris remote control is deactivated, the last position of the iris is saved and the automatic iris control is activated. The the iris remote control is again activated, the iris is set to the last saved position.

Zoom lenses, 3 motors

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
C6Z1218M3-5	2/3	C	12,5 – 75,0	1,8 – C	38°46' – 6°40'	1,0	49	M ot.
C6ZM-5P								

Zoom lenses, 2 motors, auto iris with high speed motors

Designation	Format [Zoll]	Mount	Focal length [mm]	Aperture	Hor. View angle [degree]	M.O.D. [m]	Filter thread [mm]	Iris control
TS15ZAMED-5PH (HK)	1/3	CS	6,0 – 90,0	1,2 – 430	43°29' – 3°05'	1, 5	62	DC
TS15ZAME-5PH (WX)								VS
TS15ZAME-5FH (WX)								VS
TS15ZAME-5FH (ST)								VS
H15ZAMED-5PH (HK)	1/2	C	8,0 – 120,0	1,6 – 1000	43°22' – 3°05'	1,5	62	DC
H15ZAME-5PH (WX)								VS
H15ZAME-5FH (WX)								VS
H15ZAME-5FH (ST)								VS
H18ZME-5F (WX)	1/2	C	8,0 – 144,0	1,6 – 720	45°06' – 2°33'	4,0	-	VS
H18ZME-5F (ST)								VS
H20ZAMED-5PK (KR)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC
H20ZAME-5PK (WX)								VS
H20ZAME-5FK (WX)								VS
H20ZAME-5FK (ST)								VS
H20ZAMED-5PH (KR)	1/2	C	12,0 – 240,0	1,6 – 720	30°47' – 1°34'	2,8	9 5	DC
H20ZAME-5PH (WX)								VS
H20ZAME-5FH (WX)								VS
H20ZAME-5FH (ST)								VS

The lenses of this group provide special high speed motors and are built out of special materials, which enable a fast drive of the motors.

Legend for used suffixes in the lens designations:

(TH)	3 fixing screws for iris and focus
(KA)	1 fixing screw for iris and focus
(KP)	3 fixing screws for iris and focus and 2 knurled screws
(FA)	Manual zoom lens, 1 fixing screw for both focus and zoom
(HK)	Auto iris, voltage controlled, 25cm cable, 4-pol connector (TS2V314CED (HK) = 20cm cable)
(DG)	Auto iris, voltage controlled, 25cm cable, 4-pol connector
(WX)	Auto iris, video controlled, 25cm cable, 4-pol connector
(C)	Auto iris, video controlled, 25cm cable, 4-pol connector
(SN)	Auto iris, voltage controlled, 25cm cable, 4-pol connector, IR coating
(OS)	Auto iris, video controlled, 25cm cable, 4-pol connector, IR coating
(KR)	Auto iris, voltage controlled, 25cm cable, 4-pol connector
(DC)	Auto iris, voltage controlled, 25cm cable, (some with 4-pol connector)
(ST)	Auto iris to F360 (F720 with focal length doubler), 25cm cable, 4-pol connector
(ZF)	Auto iris to F1500 (F3000 with focal length doubler), 25cm cable, 4-pol connector
(WP)	Auto iris, video controlled, 25cm cable, iris remote control with D/A converter
YK	Lenses for cameras with PENTAX K bajonett
YF	Lenses for cameras with F bajonett
NK	Lenses with high depth of immersion, 9.0mm for b/w cameras
Man.	Manual iris
DC	Voltage controlled iris
VS	Video controlled iris
IR	Special coating for infrared light
UV	Special glass for UV light
P	Zoom lens with position potentiometers
PH	Zoom lens with position potentiometers (preset) and high speed motors
F	Zoom lens with position potentiometers (preset) and possibility of iris remote control
FH	Zoom lens with position potentiometers (preset), possibility of iris remote control and high speed motors
PK	Zoom lens with position potentiometers (preset) and super high speed motors
FK	Zoom lens with position potentiometers (preset), possibility of iris remote control and super high speed motors