

AstroDigital.Net

A telescope calculator for astrophotographic and visual work

-User Manual -

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DRAFT Version

Data Definitions

Camera

Characteristics	Description	Need	Type	Unit	Example
MODEL	Product name	Mandatory	Text		[SBIG ST-7 XME NABG]
MANUFACTURER	The manufacturer of this product	Useful	Text		[SBIG]
INTERNET	Hyperlink to the manufacturer site	Optional	Text	-	[http://www.sbig.com]
WEIGHT	Weight of the camera	Optional	Number	[gram]	9000
PIXELSIZEX	Size of each pixel in mu	Mandatory	Number	[micrometers]	9,0
PIXELSIZEY	Size of each pixel in mu	Mandatory	Number	[micrometers]	9,0
CHIPSIZEXPIXEL	Number of horizontal pixels	Mandatory	Number	[pixel]	765
CHIPSIZEYPIXEL	Number of vertical pixels	Mandatory	Number	[pixel]	510
COOLING	Max. cooling capability under ambient temperature	Optional	Number	[°C] under ambient temperature	-35
COLORCHIP	Is it a color chip (with bayer matrix on it)	Optional	Text	[YES/NO]	NO
FULLWELLCAPACITY	FWC is a sensitivity factor	Useful	Number	[e-]	100000
SYSTEMGAIN	System gain is a sensitivity factor	Useful	Number	-	2,6

Eyepiece

Characteristics	Description	Need	Type	Unit	Example
MODEL	Product name	Mandatory	Text	-	[TAL Koenig 25mm]
MANUFACTURER	The manufacturer of the eyepiece	Optional	Text	-	[TAL]
INTERNET	Hyperlink to the manufacturer site	Optional	Text	-	[http://www.telescopes.ru/]
WEIGHT	Weight of the eyepiece	Optional	Number	[gram]	200
TYPE	Type of the lenses used		Text	NORMAL => normal lenses ED => extra dispersion lenses SD => super dispersion lenses FL => fluorite lenses	NORMAL
SUBTYPE	Design type	Optional	Text	LE KOENIG LV LVW PANOPTICS NAGLER	KOENIG
FOCALLENGTH	Focal length of the eyepiece	Mandatory	Number		25
LENSES	Count of lenses used	Optional	Number	-	3
LENSGROUPS	Count of lense groups	Optional	Number	-	1
FOV	Field of view	Mandatory	Number	[° Degrees]	52

Telescope

Characteristics	Description	Need	Type	Unit	Example
MODEL	Product name	Mandatory	Text	-	[Takahashi TSA-102]
MANUFACTURER	The manufacturer of the telescope	Optional	Text	-	[Takahashi]
INTERNET	Hyperlink to the manufacturer site	Optional	Text	-	[http://www.takahashijapan.com]
WEIGHT	Weight of the telescope	Optional	Number	[gram]	5200
TYPE	Telescope type	Mandatory	Text	REFLECTOR REFRACTOR	REFRACTOR
SUBTYPE	Design type	Mandatory	Text	NEWTON => Classical Newton SCT => Schmidt Cassegrain MCT => Maksutov Newton KCT => Kletsov Catadioptrics C => Classical Cassegrain DK => Dall Kirchham VISAC => VISAC Cassegrain CMEN => Cassegrain with Meniskus RC => Ritchie Chretien MN => Maksutov Newton SN => Schmidt Newton APOFL => Fluorite Apochromat APOED => ED Apochromat APOSD => SD Apochromat APOPOPULAR => Budget Apochromat NA => Neo Achromat FH => Fraunhofer FHPOPULAR => Popular budget scopes	APOED
FOCALLENGTH	Focal Length of the telescope	Mandatory	Number	[mm]	816
LENSES	Count of lenses used	Mandatory <i>for refractors</i>	Number	-	3
LENSGROUPS	Count of lense groups	Useful <i>for refractors</i>	Number	-	1
APERTURE	Aperture of the telescope	Mandatory	Number	[mm]	102

Barlow

Characteristics	Description	Need	Type	Unit	Example
MODEL	Product name	Mandatory	Text	-	[TAL Barlow x3]
MANUFACTURER	The manufacturer of the barlow	Optional	Text	-	[TAL]
INTERNET	Hyperlink to the manufacturer site	Optional	Text	-	[http://www.telescopes.ru/]
WEIGHT	Weight of the barlow	Optional	Number	[gram]	250
TYPE	Type of the lenses used	Useful	Text	NORMAL => normal lenses ED => extra dispersion lenses SD => super dispersion lenses FL => fluorite lenses	NORMAL
SUBTYPE	Design type	Optional	Text	NORMAL POWERMATE TV BIGBARLOW TS-BARLOW	NORMAL
MULTIPLIER	How many times this barlow multiplies the focal length of the used telescope	Mandatory	Number	-	3
LENSES	Count of lenses used	Optional	Number	-	3
LENSGROUPS	Count of lense groups	Optional	Number	-	1