



# X-SIGHT CATALOG

Products & Components



## ONE

Optical extensometer for a wide range of material and component testing



Product	Resolution [MPx]	Frame rate @ full resolution [Hz]	Interface	Measurement length [mm]			Light	Dimensions [mm]	Weight [kg]	Lens mount
				Class 0.5	Class 1	Class 2				
ONE1-M1	1.3	170	USB3.0	80	160	320	L200	221x187x80	1.4	C
ONE1-M2	2.3	43		110	190	380				
ONE1-M5	5.0	75		130	260	520				
ONE1-M9	8.9	32		220	440	880				
ONE1-M16	16.1	23		330	660	1320				
ONE2-M1	2x1.3	170	USB3.0	2x80	2x160	600	2xL200	221x187x80 per unit	1.4	C
ONE2-M2	2x2.3	43		2x110	360	720				
ONE2-M5	2x5.0	75		2x130	520	1040				
ONE2-M9	2x8.9	32		420	840	1680				
ONE2-M16	2x16.1	23		640	1280	2600				
ONE3-M1	3x1.3	170	USB3.0	3x80	3x160	900	3xL200	221x187x80 per unit	1.4	C
ONE3-M2	3x2.3	43		3x110	530	1060				
ONE3-M5	3x5.0	75		3x130	760	1500				
ONE3-M9	3x8.9	32		620	1240	2480				
ONE3-M16	3x16.1	23		920	1900	3850				

- ▶ X-Sight ONE comes with industrial camera, lens, monochromatic LED light, USB relay for light controlling, calibration grid, data cable, power cable, power supply, installation medium and HW licence key
- ▶ Axial or Transversal software module and one year of TECS included
- ▶ Multicamera set-ups include the multicamera module

### ONE 1

M1-M16



### ONE 2

M1-M16



### ONE 3

M1-M16



## ONE LARGE

Optical extensometer for a wide range of material and component testing, suitable for extended or high-elongation specimens.



Product	Resolution [MPx]	Frame rate @ full resolution [Hz]	Interface	Measurement length [mm]			Light	Dimensions [mm]	Weight [kg]	Lens mount
				Class 0.5	Class 1	Class 2				
ONE LARGE 1-S-M1	1.3	170	USB3.0	80	160	320	L400	421x187x80	2.5	C
ONE LARGE 1-S-M2	2.3	43		110	190	380				
ONE LARGE 1-S-M5	5.0	75		130	260	520				
ONE LARGE 1-S-M9	8.9	32		220	440	880				
ONE LARGE 1-S-M16	16.1	23		330	660	1320				
ONE LARGE 1-D-M1	2x1.3	170	USB3.0	150 or 2x80	300 or 2x160	600	L400	421x187x80	2.6	C
ONE LARGE 1-D-M2	2x2.3	43		200 or 2x110	360	720				
ONE LARGE 1-D-M5	2x5.0	75		240 or 2x130	520	1040				
ONE LARGE 1-D-M9	2x8.9	32		420	840	1680				
ONE LARGE 1-D-M16	2x16.1	23		640	1280	2600				
ONE LARGE 2-S-M1	2x1.3	170	USB3.0	2x80	2x160	2x320	2x L400	421x187x80 per unit	2x2.5	C
ONE LARGE 2-S-M2	2x2.3	43		2x110	2x190	720				
ONE LARGE 2-S-M5	2x5.0	75		2x130	2x260	1040				
ONE LARGE 2-S-M9	2x8.9	32		2x220	820	1680				
ONE LARGE 2-S-M16	2x16.1	23		2x330	1280	2600				

- ▶ X-Sight ONE L comes with industrial camera, lens, monochromatic LED light, USB relay for light controlling, calibration grid, data cable, power cable, power supply, installation medium and HW licence key
- ▶ Axial or Transversal software module and one year of TECS included
- ▶ Multicamera set-ups include the multicamera module

### ONE LARGE IS

M1-M16



### ONE LARGE ID

M1-M16



### ONE LARGE 2S

M1-M16



## HT

Optical extensometer for high-temperature applications



Product	Resolution [MPx]	Frame rate @ full resolution [Hz]	Interface	Resolution [ $\mu\text{m}$ ]*	Measurement length [mm]	Working Distance [mm]	Light	Dimensions [mm]	Lens type	Weight [kg]
HT	5.0	75	USB 3.0	<0.5	47	262 $\pm$ 1%	SLG-N	253x136x71	Telecentric	1.7

\*At room temperature. Resolution at elevated temperature is highly affected by boundary conditions (vibrations, air turbulence).

- ▶ X-Sight HT comes with 5 MPx industrial camera, lens, monochromatic spot light, USB relay for light controlling, calibration grid, data cable, power cable, power supply, installation medium and HW licence key
- ▶ Axial software module and one year of TECS included

## HT



## ST-HT

Universal semi-telecentric high-temperature optical extensometer



Product	Resolution [MPx]	Frame rate @ full resolution [Hz]	Interface	Light	Weight [kg]	Lens type
ST-HT	5.0	75	USB 3.0	SLG-N	0.9	Semi-telecentric

WD [mm]	Mag [x]	Field of View [mm]	
		Axial	Trans
1000	0.057	148	124
800	0.072	117	98
600	0.097	87	73
400	0.15	56	47
200	0.323	26	22
140	0.504	17	14

- ▶ X-Sight ST-HT comes with 5 MPx industrial camera, lens, monochromatic spot light, USB relay for light controlling, calibration grid, data cable, power cable, power supply, installation medium and HW licence key
- ▶ Axial software module and one year of TECS included

## ST-HT





# OPTICAL EXTENSOMETERS

Software modules, Technical Enhancements & CustomerSupport (TECS) for optical extensometers



Optical extensometer SW modules	Description
A	Axial Strain Module
T	Transversal Strain Module
AT	Axial&Transversal Strain Module
DIC	DIC Area Module with Post-Process
PP	Data Post-Process Module
3D	3D DIC Stereoscopic Module
3D VE FULL	3D Stereoscopic functionality for line based probes
3D VE PLANAR	3D planar stereoscopic functionality
AL-Up	Upgrade A to AT or T to AT SW module
AL-TR	Torsion Measurement Upgrade
MC	Multi Camera
DIN	Device Input
ITT	Intelligent Tensile Testing (includes ROD line)
LVD	Line Value Distribution
CL	Crack Length
BT	Bridge visualization
RD	Research and development features
SW BOX kit bundle	"The X-Sight BOX and License fee for SW-only modules bundle. Applicable once when buy any combination of SW modules. Includes box, Annual TECS USB dongle, 100 mm and 200 mm grid."

UPDATE only**	
S-UPDATE 1 year	Sensor 2D/3D real time measurements only
S-UPDATE 2 years	Sensor 2D/3D real time measurements only
S-UPDATE 3 years	Sensor 2D/3D real time measurements only
S-UPDATE 4 years	Sensor 2D/3D real time measurements only
S-UPDATE 5 years	Sensor 2D/3D real time measurements only
SP-UPDATE 1 year	Sensor 2D/3D real time + post process software
SP-UPDATE 2 years	Sensor 2D/3D real time + post process software
SP-UPDATE 3 years	Sensor 2D/3D real time + post process software
SP-UPDATE 4 years	Sensor 2D/3D real time + post process software
SP-UPDATE 5 years	Sensor 2D/3D real time + post process software

Additional and optional support	
Customer support	Every started hour of individual customer support
Additional module UPDATE	Discount on UPDATE with additional module order
Additional module TECS	Discount on TECS with additional module order
Custom functionality	Custom functionality SW implementation hourly rate
Services	Custom services

\* The TECS includes the software update and customer support 3 hours per year  
 \*\* The UPDATE includes only the software update without the customer support hours

TECS*	Description
Annual TECS	Sensor 2D/3D real time measurements only
Two-Year TECS	Sensor 2D/3D real time measurements only
Three-Year TECS	Sensor 2D/3D real time measurements only
Four-Year TECS	Sensor 2D/3D real time measurements only
Five-Year TECS	Sensor 2D/3D real time measurements only
Annual TECS	Sensor 2D/3D real time + post process software
Two-Year TECS	Sensor 2D/3D real time + post process software
Three-Year TECS	Sensor 2D/3D real time + post process software
Four-Year TECS	Sensor 2D/3D real time + post process software
Five-Year TECS	Sensor 2D/3D real time + post process software



## X-SIGHT DIC 2D

DIC measuring system



Product	Resolution [MPx]	Frame rate @ full resolution [Hz]	Interface	Measurement area [mm]		
				Class 0.5	Class 1	Class 2
M5	5.0	75	USB3.0	130x110	260x220	520x440
M16	16.1	23		330x180	660x360	1320x750
M24	24.5	15		330x285	660x570	1320x1140
M67	67.1	13.8	10GigE	410x410	820x820	1640x1640

X-Sight DIC 2D to 3D Extension kits	description
XS-M5 3D EXTENSION KIT	X-Sight DIC 3D - M5 upgrade to 3D system
XS-M16 3D EXTENSION KIT	X-Sight DIC 3D - M16 upgrade to 3D system
XS-M24 3D EXTENSION KIT	X-Sight DIC 3D - M24 upgrade to 3D system
XS-M67 3D EXTENSION KIT	X-Sight DIC 3D - M67 upgrade to 3D system

- ▶ X-Sight DIC 2D system comes with Industrial camera in cooler, lens (optional depending on the particular working distance), 2x Calibration grid, USB2 16-bit AD/DA convertor, 2x LED light and 1x Arm clamp (light holder), Cabling, Power supply, Tripod, HASP key with perpetual license, Installation USB
- ▶ Full software and one year of TECS included

## X-SIGHT DIC 2D

M5-M67



## X-SIGHT DIC 3D

Stereoscopic DIC measuring system



Product	Resolution [MPx]	Frame rate @ full resolution [Hz]	Interface	Measurement area [mm]		
				Class 0.5	Class 1	Class 2
M5	2x5.0	75	USB3.0	130x110	260x220	520x440
M16	2x16.1	23		330x180	660x360	1320x750
M24	2x24.5	15		330x285	660x570	1320x1140
M67	2x67.1	13.8	10GigE	410x410	820x820	1640x1640

- ▶ X-Sight DIC 3D system comes with 2x Industrial camera in cooler, lens, monochromatic spot light, 2x Lens (optional depending on the particular working distance), 2x Calibration grid, USB2 16-bit AD/DA convertor, 4x LED light and 2x Arm clamp (light holder), Cabling, Power supply, Tripod, HASP key with perpetual license, Installation USB
- ▶ Full software and one year of TECS included

## X-SIGHT DIC 3D

M5-M67







# DIC SOFTWARE

Digital Image Correlation software,  
 Technical Enhancements & Customer Support (TECS)



Digital Image Correlation software (DIC)	description
<b>BOX-PRO-kit</b>	X-Sight DIC custom kit professional, includes perpetual BOX software, two calibration grids and one year of TECS
<b>SW perpetual only</b>	HW bundle and upgrades or updates of X-Sight systems
<b>Additional USB post dongle</b>	Additional post license for postprocessing
<b>SW LITE perpetual only</b>	DIC Area functionality excluded
TECS and subscription	description
<b>Annual TECS</b>	Technical Enhancements for one year, securing new updates and functionalities and customer support (email, online, phone).
<b>Annual subscription</b>	One-Year subscription
<b>Triennial subscription</b>	Three-Year subscription
<b>Research subscription</b>	One-Year subscription for research purposes



## CAMERAS



Product	Resolution [MPx]	Pixels	Color	Sensor format	Pixel Size [μm]	Frame rate @ full resolution [Hz]	Interface	Dimensions without lens mount	Shutter	Lens mount
M1	1.3	1280 x 1024	Mono	1/3"	3.45	170	USB 3.0	29 x 29 x 29	Global	C
M2	2.3	1920 x 1200		1/1.2"	5.86	42		29 x 29 x 29	Global	
M5	5.0	2448 x 2048		2/3"	3.45	75		29 x 29 x 29	Global	
M6	6.3	3072 x 2048		1/3"	2.4	59		29 x 29 x 29	Rolling with global reset	
M9	8.9	4096 x 2160		1"	3.45	32		29 x 29 x 29	Global	
M16	16.1	5328 x 3040		1.1"	2.74	23		36.3 x 29 x 29	Global	
M24	24.5	5328 x 4608		1.2"	2.74	15		36.3 x 29 x 29	Global	
M67	67.1	8192 x 8192		APS-C	2.5	13.8		10GigE	41 x 59 x 59	

Supported Camera Manufacturers: Flir, Basler, AVT, Daheng, IDS, Ximea

## CAMERAS

M1 - M24



M67



## LENSES



Product	Focal length [mm]	Magnification	Sensor format	Minimal focusing distance [mm]	minimum f number	Dimensions [mm]	Weight [g]	Filter size	Mount
<b>BL1236</b>	12-36	N/A	2/3"	50 (wide) 200 (tele)	2.8	Ø41.6x53	105	M35.5x0.5	
<b>BL12</b>	12	N/A	1/1.2"	100	2.0	Ø29x56	65	M27x0.5	
<b>BL16</b>	16	N/A	1/1.2"	100	2.0	Ø29x48.7	50	M27x0.5	
<b>BL25</b>	25	N/A	1/1.2"	100	1.8	Ø29x54.5	55	M27x0.5	
<b>BL35</b>	35	N/A	1/1.2"	200	2.1	Ø29x56.6	55	M27x0.5	
<b>S08</b>	8	N/A	2/3"	100	2.8	Ø32x35.5	60	M30.5x0.5	
<b>S12</b>	12	N/A	2/3"	100	2.8	Ø29x43.5	60	M27x0.5	
<b>S16</b>	16	N/A	2/3"	250	2.8	Ø29x29	40	M27x0.5	
<b>S25</b>	25	N/A	2/3"	200	2.8	Ø29x31.5	40	M27x0.5	
<b>S35</b>	35	N/A	2/3"	250	2.8	Ø29x38.5	50	M27x0.5	
<b>S50</b>	50	N/A	2/3"	300	2.8	Ø29x56	65	M27x0.5	
<b>S75</b>	75	N/A	2/3"	400	2.8	Ø36x75	100	M34x0.5	
<b>H08</b>	8	N/A	1.2"	200	2.8	Ø 57.7x53.2	160	Adapter required	
<b>H12</b>	12	N/A	1.2"	300	2.8	Ø42.0x36.1	100	M40.5x0.5	
<b>H16</b>	16	N/A	1.2"	300	2.8	Ø39.5x35.2	90	M34x0.5	
<b>H25</b>	25	N/A	1.2"	300	2.8	Ø39.5x34	80	M34x0.5	
<b>H35</b>	35	N/A	1.2"	300	2.8	Ø39.5x45.2	100	M34x0.5	
<b>H50</b>	50	N/A	1.2"	500	2.8	Ø39.5x45.2	110	M34x0.5	
<b>SEMI-TELECENTRIC</b>									
<b>ST-55</b>	0.057x - 0.5x	2/3"	140-1000	N/A	3-22	Ø59x93.1	400	M46x0.75	
<b>TELECENTRIC</b>									
<b>T25</b>	0.5x	2/3"	65	3	9.5	Ø32x94.5	100	N/A	
<b>T25L</b>	0.5x	2/3"	110	3	9.5	Ø34x146	145	N/A	
<b>HT</b>	0.17x	1/2"	287	±3	3-13	Ø56x177	324	M52x0.75	

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## LENS

BL1236



BL12



BL16



BL25



BL35



S08



ST55



T25



S12



S16



S25



S35



S50



S75



T25L



H08



H12



H16



H25



H35



H50



HT



## LIGHTS



Product	use	Color	Active Area [mm]	Dimensions [mm]	Power [W]	Voltage [V]	Recommended current [mA]	Weight [g]	Connector	Angle [°]
L100	BAR LIGHT	blue	100×10	110×18×20	3	24	150	90	M8-4pinM	
L200		blue	200×10	210×18×20	6	24	300	150	M8-4pinM	
L200YO		yellow	200×10	210×18×20	6	24	300	150	M8-4pinM	
L300		blue	300×10	310×18×20	9	24	450	230	M8-4pinM	
L400		blue	400×10	410×18×20	11	24	600	300	M8-4pinM	
L500		blue	500×10	510×18×20	14	24	750	370	M8-4pinM	
SLG-N	SPOT LIGHT	green		50×46×46	20	24	600	200	M12-5pinM	13
SLG-W		green		50×46×46	20	24	600	200	M12-5pinM	26
SLY-N		yellow		50×46×46	20	24	600	200	M12-5pinM	13
BLED		white (3200 - 5600K)	150×80	158×80×10	0-10	N/A	N/A	500	USB-C	N/A
BLED RGB		white (2500 - 9000K) + RGB	156×80	160×90×15	0-12	N/A	N/A	300	USB-C	N/A
BL300		blue	300×100			12	24		M8-4pinM	N/A
ML200		Warm White to Cool Daylight (2700K - 6500K)		127×67.5×225	320	100/240		2200		N/A

## LIGHTS

L100-L500

SLG-N, SLG-W, SLY-N

BLED, BLED RGB, BL300



ML200



## MOUNTS



Product	Maximum load [kg]	Weight [kg]	Maximum height [cm]	Minimum height [cm]	Transport height [cm]	Note
TRIPOD	14	1.9	165.6	39	49.5	Central rod allows horizontal positioning, includes travel bag

  

	Height [cm]	Maximum load [kg]	Weight [kg]	Type	Fast-mounting pad
T-3-HEAD	13	5	1.2	Gear	Yes
T-B-HEAD	10	8	0.3	Ball	Yes

  

	Height [cm]	Maximum load [kg]	Weight [g]	Ends
MARM	25	3	275	1/4" screw
MARM-HD	53	3	1090	5/8" stud with 1/4" (top) and 3/8" (bottom) screw

  

Description	
COB	Customized arm designed from aluminium extruded profiles to mount the X-Sight system to a UTM
CAMCOOL	Passive camera cooler suitable for cameras M1-M24; allows horizontal and vertical, left and right camera positioning

## MOUNTS

### CAMCOOL



### MARM



### T-3-HEAD, T-B-HEAD



### TRIPOD



## DEVICES & PC COMPONENTS



Product	Interface	Analog Input	Input range [V]	Input res.	Analog Output	Output range [V]	Output range [mA]	Output res.	Accuracy	Sampling rate [kS/s]	Electrical connection
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AD16-U	USB 2.0	16 SE / 8 DIFF	$\pm 10, \pm 5, \pm 2.5, \pm 1.25, \pm 0.625, 0-10, 0-5, 0-2.5, 0-1.25$	16bit	2 Channels	$\pm 10, \pm 5, 0-10, 0-5$	N/A	16bit	$\pm 1$ LSB	200	Screw wire terminal
AD16-U-LC	USB 2.0	8 SE / 4 DIFF	$\pm 10$	16bit	2 Channels	$\pm 10$	N/A	16bit	$\pm 1.8$ LSB input / $\pm 4$ LSB output	50 input / 5 output	Screw wire terminal
DA16-U-4CH	USB 3.0	N/A	N/A	N/A	4 Channels	0-5, 0-10, $\pm 5, \pm 10$	0-20, 4-20	16bit	$\pm 1$ LSB	200	Spring wire terminal

product	Interface	Number of channels	Output signal	Output logic [V]	Sampling rate [kS/s]	Input trigger logic [V]	Electrical connection
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PG-2CH	USB 2.0	2	A/B quadrature	0-5	80	0-5	Screw wire terminal
PG-4CH		4					

product	Interface	Number of channels	Number of outputs	Input connector	Output connectors	Voltage range [V]	Electrical connection
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USB RELAY	USB 2.0	2	2 per channel	M8-3pinM	M8-4pinF	0-30	Screw wire terminal
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product	Type	Interface	Number of Channels	Max data throuput [MB/s]	Externa power connector
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PCE-U3-2	USB 3.0	PCIe 1x	2	380	SATA
PCE-U3-4		PCIe 4x	4	1520	SATA, MOLEX

product	Interface
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RS-USB	USB 2.0
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PG-2CH, PG-4CH, USB RELAY



RS-USB



## DEVICES & PC COMPONENTS

AD16-U

AD16-U-LC

DA16-U-4CH

PCE-U3-2



## GRIDS

Grids for calibration



Product	Dimensions [mm]	Unit distance [mm]	Thickness [mm]	Origins
M050	65x45	2 or 3		
M100	110x65	5		
M200	200x150	8		
M400	400x150	8		MONO
M400W	450x350	24		
M600	600x450	24		
M800	790x430	36	3	
J100	110x65	3		
J200	200x150	5		
J400	400x150	8		DUAL
J600	650x150	8		
J800	800x200	23		

## GRIDS

M050-J800





## MISC

Cables & consumables



Product	Description
DONGLE	HW license key with installation USB drive in a storage box
CS-U-5m	Compact System USB3 cable - 4.6m
ONE-U-3m	ONE System USB3 camera cable - 3m
ONE-CAB-STR	ONE system standard cable strand - CAM, RELAY, 24V in nylon shield
SERIAL-5m	Serial Data Cable (RS232 - crossed) - 5m; (1-1, 2-3, 3-2, 4-6, 5-5, 6-4, 7-8, 8-7, 9-9, S-S)
IAC-25pin	Instron Analog Cable 25pin - 3m
STAMP	Speckle Patter Stamp with Paint Cushion
AL203	Al2O3 powder for high temp marking - 100g

## MISC

ONE-U-3m



IAC-25pin



ONE-CAB-STR



CS-U-5m



SERIAL-5m



DONGLE



# X<sup>S</sup>SIGHT

