



# X-SIGHT CATALOG

Products & Components





# 2000 SERIES

Optical extensometer for a wide range of material and component testing



Product	Typical sampling Rate [Hz]	Sampling Rate at Full View [Hz]	Interface	Measurement length [mm]			Light	Dimensions [mm]	Weight [kg]	Lens mount
				Class 0.5*	Class 1*	Class 2*				
X-Sight-2101	200	170	USB 3.0	80	160	320	L200	221x187x80	1.4	C
X-Sight-2102	90	43		110	190	380				
X-Sight-2105	175	75		130	260	520				
X-Sight-2106**	200	60								
X-Sight-2109	75	32		220	440	880				
X-Sight-2116	70	23		330	660	1320				
X-Sight-2201	200	170	USB 3.0	2x80	2x160	600	2xL200	221x187x80 per unit	1.4	C
X-Sight-2202	90	43		2x110	360	720				
X-Sight-2205	175	75		2x130	520	1040				
X-Sight-2206**	200	60								
X-Sight-2209	75	32		420	840	1680				
X-Sight-2216	70	23		640	1280	2600				
X-Sight-2301	200	170	USB 3.0	3x80	3x160	900	3xL200	221x187x80 per unit	1.4	C
X-Sight-2302	90	43		3x110	530	1060				
X-Sight-2305	175	75		3x130	760	1500				
X-Sight-2206**	200	60								
X-Sight-2309	75	32		620	1240	2480				
X-Sight-2316	70	23		920	1900	3850				

\* Compliant to ISO 9513, \*\* ASTM focused VE

- ▶ X-Sight 2000 series 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 software module and one year of TECS included
- ▶ Multicamera set-ups include the multicamera module

## X-SIGHT 21<sub>MPX</sub>

MPx = 01, 02, 05, 06, 09 and 16

## X-SIGHT 22<sub>MPX</sub>

MPx = 01, 02, 05, 06, 09 and 16

## X-SIGHT-23<sub>MPX</sub>

MPx = 01, 02, 05, 06, 09 and 16



## 4000 SERIES

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



Product	Typical sampling Rate [Hz]	Sampling Rate at Full View [Hz]	Interface	Measurement length [mm]			Light	Dimensions [mm]	Weight [kg]	Lens mount
				Class 0.5*	Class 1*	Class 2*				
X-Sight-4101	200	170	USB 3.0	80	160	320	L400	421×187×80	2.5	C
X-Sight-4102	90	43		110	190	380				
X-Sight-4105	175	75		130	260	520				
X-Sight-4109	75	32		220	440	880				
X-Sight-4116	70	23		330	660	1320				
X-Sight-4101-D	200	170	USB 3.0	150 or 2×80	300 or 2×160	600	L400	421×187×80	2.6	C
X-Sight-4102-D	90	43		200 or 2×110	360	720				
X-Sight-4105-D	175	75		240 or 2×130	520	1040				
X-Sight-4109-D	75	32		420	840	1680				
X-Sight-4116-D	70	23		640	1280	2600				
X-Sight-4201	200	170	USB 3.0	2×80	2×160	2×320	2x L400	421×187×80 per unit	2×2.5	C
X-Sight-4202	90	43		2×110	2×190	720				
X-Sight-4205	175	75		2×130	2×260	1040				
X-Sight-4209	75	32		2×220	820	1680				
X-Sight-4216	70	23		2×330	1280	2600				

- ▶ X-Sight 4000 series 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 software module and one year of TECS included
- ▶ Multicamera set-ups include the multicamera module

**X-SIGHT-41<sub>MPX</sub>**  
MPx = 01, 02, 05, 09 and 16



**X-SIGHT-41<sub>MPX</sub>-D**  
MPx = 01, 02, 05, 09 and 16



**X-SIGHT-42<sub>MPX</sub>**  
MPx = 01, 02, 05, 09 and 16



## 4000-3D

Universal stereoscopic video extensometer equipped with two cameras to capture spatial movements and deformations.



Product	Typical sampling Rate [Hz]	Sampling Rate at Full View [Hz]	Measurement length [mm]		Light	Dimensions [mm]	Weight [kg]	Lens mount
			Class 0.5	Class 1				
X-Sight-4105-3D	175	75	110	220	L400	421x187x80	2.5	C
X-Sight-4109-3D	75	32	220	440				

### X-SIGHT 4000-3D VE

- ▶ X-Sight 4000-3D VE comes with two industrial cameras, lenses, monochromatic LED 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

### X-SIGHT 41<sub>MPX</sub>-3D

MPx = 05, 09





## 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	130×110	260×220	520×440
M16	16.1	23		330×180	660×360	1320×750
M24	24.5	15		330×285	660×570	1320×1140
M67	67.1	13.8	10GigE	410×410	820×820	1640×1640

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), 2× Calibration grid, USB2 16-bit AD/DA convertor, 2× LED light and 1× 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 system comes conveniently packaged in a practical carrying case, outer dimensions 687×528×366mm.

## 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	2×5.0	75	USB3.0	130×110	260×220	520×440
M16	2×16.1	23		330×180	660×360	1320×750
M24	2×24.5	15		330×285	660×570	1320×1140
M67	2×67.1	13.8	10GigE	410×410	820×820	1640×1640

- ▶ X-Sight DIC 3D system comes with 2× Industrial camera in cooler, lens, monochromatic spot light, 2× Lens (optional depending on the particular working distance), 2× Calibration grid, USB2 16-bit AD/DA convertor, 4× LED light and 2× 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 system comes conveniently packaged in a practical carrying case, outer dimensions 687×528×366mm.

## X-SIGHT DIC 3D

M5-M67



## 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



## 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	248x140x76	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







# OPTICAL EXTENSOMETERS

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



SW modules	Description
AX	Basic UI and mandatory Axial Strain Module
TR	Transversal Strain Module
DIC	DIC Area Module with Post-Process
PP	Data Post-Process Module
3D	3D DIC Stereoscopic Module
3DL	3D Stereoscopic functionality for line based probes
3DP	3D planar stereoscopic functionality
3DPL	3D Planar Stereoscopic Functionality for Line Based Probes
TO	Torsion Measurement Module
MC	Multi Camera
DI	Device Input
ITT	Intelligent Tensile Testing (includes ROD line)
LVD	Line Value Distribution
CL	Crack Length
BM	Bridge visualization
RES	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.

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

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

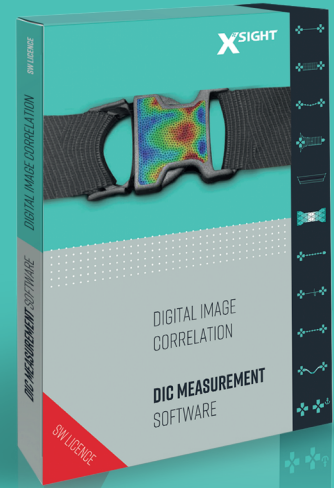






# DIC SOFTWARE

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



Digital Image Correlation software	description
DIC2D/3D-F SW perpetual*	FULL DIC 2D/3D perpetual software
DIC2D/3D-FPP SW perpetual*	FULL DIC 2D/3D perpetual software POSTPROCESS only
XS-DIC2D-L SW perpetual*	Line based probes DIC 2D/3D perpetual software
DIC2D/3D-LPP SW perpetual*	Line based probes (DIC Area functionality excluded) DIC 2D/3D perpetual software POSTPROCESS only
Additional USB post dongle	Additional post license for posprocessing

TECS and subscription	description
Annual TECS	Technical Enhancements and software update for one year, securing new updates,functionalities and Customer Support**
Annual UPDATE	Software update for one year, securing new updates and functionalities
Annual subscription	One-year subscription
Triennial subscription	Three-year subscription
Academic subscription	One-year subscription for research purposes
EDU class 20	Educational pack of 20 annual licenses, only available for academic users which already own any commercial or academic products

\*This product comes in a box including HASP dongle, USB install drive and M100 & M200 calibration grids.

\*\* Customer support includes 4/8 hours per year for 2D/3D systems.





Product	Focal length [mm]	Magnification	Sensor format	Minimal focusing distance [mm]	minimum f number	Dimensions [mm]	Weight [g]	Filter size	Mount
B08	8	N/A	1/1.8"	100	2.0	Ø26,8 × 25	30	M25.5 × 0.5	
B12	12	N/A	1/1.8"	100	2.0	Ø26,8 × 20	30	M25.5 × 0.5	
BL1236	12-36	N/A	2/3"	50 (wide) 200 (tele)	2.8	Ø41.6×53	105	M35.5×0.5	
BL12	12	N/A	1/1.2"	100	2.0	Ø29×56	65	M27×0.5	
BL16	16	N/A	1/1.2"	100	2.0	Ø29×48.7	50	M27×0.5	
BL25	25	N/A	1/1.2"	100	1.8	Ø29×54.5	55	M27×0.5	
BL35	35	N/A	1/1.2"	200	2.1	Ø29×56.6	55	M27×0.5	
S08	8	N/A	2/3"	100	2.8	Ø32×35.5	60	M30.5×0.5	
S12	12	N/A	2/3"	100	2.8	Ø29×43.5	60	M27×0.5	
S16	16	N/A	2/3"	250	2.8	Ø29×29	40	M27×0.5	
S25	25	N/A	2/3"	200	2.8	Ø29×31.5	40	M27×0.5	
S35	35	N/A	2/3"	250	2.8	Ø29×38.5	50	M27×0.5	
S50	50	N/A	2/3"	300	2.8	Ø29×56	65	M27×0.5	C
S75	75	N/A	2/3"	400	2.8	Ø36×75	100	M34×0.5	
H08	8	N/A	1.2"	200	2.8	Ø 57.7×53.2	160	Adapter required	
H12	12	N/A	1.2"	300	2.8	Ø42.0×36.1	100	M40.5×0.5	
H16	16	N/A	1.2"	300	2.8	Ø39.5×35.2	90	M34×0.5	
H25	25	N/A	1.2"	300	2.8	Ø39.5×34	80	M34×0.5	
H35	35	N/A	1.2"	300	2.8	Ø39.5×45.2	100	M34×0.5	
H50	50	N/A	1.2"	500	2.8	Ø39.5×45.2	110	M34×0.5	
XH12			4/3"						
XH16			4/3"						
XH25		upon request	4/3"						upon request
XH35			4/3"						
XH50			4/3"						

### SEMI-TELECENTRIC

	Magnification	Sensor format	Working distance [mm]	Depth of Field [mm]	Effective f number	Dimensions [mm]	Weight [g]	Filter size
ST-55	0.057x - 0.5x	2/3"	140-1000	N/A	3-22	Ø59×93.1	400	M46×0.75

### TELECENTRIC

T25	0.5x	2/3"	65	3	9.5	Ø32×94.5	100	N/A
T25L	0.5x	2/3"	110	3	9.5	Ø34×146	145	N/A
HT	0.17x	1/2"	287	±3	3-13	Ø56×177	324	M52×0.75

## LENSES



### LENS



## 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
VE-U-3m	VE USB3 camera cable - 3m
VE-CAB-STR	2000 series VE 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
AL2O3	Al2O3 powder for high temp marking - 100g

## MISC

VE-U-3m



IAC-25pin



VE-CAB-STR



CS-U-5m



SERIAL-5m



DONGLE





## CAMERAS



Product	Resolution [MPx]	Pixels	Color	Sensor format	Lens series	Pixel Size [μm]	Frame rate @ full resolution [Hz]	Interface	Dimensions without lens mount	Shutter	Lens mount		
M1	1.3	1280 × 1024	Mono	1/3"	S	3.45	170	USB 3.0	29 × 29 × 29	Global	C		
M2	2.3	1920 × 1200		1/1.2"	BL	5.86	42		29 × 29 × 29	Global			
M5(D)	5.0	2448 × 2048		2/3"	S	3.45	75		29 × 29 × 29	Global			
M6	6.3	3072 × 2048		1/3"	S	2.4	59		29 × 29 × 29	Rolling with global reset			
M9	8.9	4096 × 2160		1"	H	3.45	32		29 × 29 × 29	Global			
M16	16.1	5328 × 3040		1.1"	H	2.74	23		36.3 × 29 × 29	Global			
M24	24.5	5328 × 4608		1.2"	H	2.74	15		36.3 × 29 × 29	Global			
M67	67.1	8192 × 8192		APS-C		2.5	13.8		10GigE	41 × 59 × 59		Global	M42
X1	1.1	1280 × 864		4/3"	XH	13.7	3675		PCIe Gen3 64 Gbit/s	60 × 70 × 55		Global	C
X2	2.1	1920 × 1080		4/3"	XH	10	2263		PCIe Gen3 64 Gbit/s	60 × 70 × 55		Global	

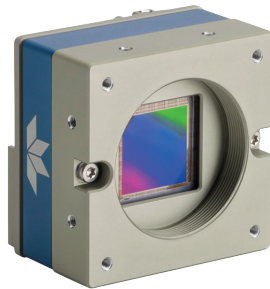
Supported Camera Manufacturers: FLIR, AVT, Basler, Optris, Ximea, Daheng, IDS and DynaColor

## CAMERAS

M1 – M24



M67



X1 – X2





## LIGHTS



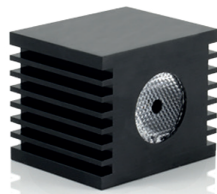
Product	use	Color	Active Area [mm]	Dimensions [mm]	Power [W]	Voltage [V]	Recommended current [mA]	Weight [g]	Connector	Angle [°]
L100	BAR LIGHT	blue	100×10	110×18×20	3	24	150	90	M8-4pinM	
L200		blue	200×10	210×18×20	6	24	300	150	M8-4pinM	
L200YO		yellow	200×10	210×18×20	6	24	300	150	M8-4pinM	
L300		blue	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
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	

## LIGHTS

L100-L500

SLG-N, SLG-W, SLY-N

BLED, BL300



ML200



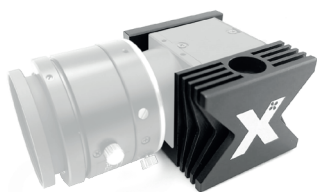
## MOUNTS



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



AD-DA CONVERTERS											
converters	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

AD16-U-LC*	USB 2.0	8 SE / 4 DIFF	±10	16bit	2 Channels	±10	N/A	16bit	±1.8 LSB input / ±4 LSB output	50 input / 5 output	Screw wire terminal
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\* Other AD-DA converters available upon request

PULSEGEN							
product	Interface	Number of channels	Output signal	Output logic [V]	Sampling rate [kS/s]	Input trigger logic [V]	Electrical connection

PG-2CH	USB 2.0	2	A/B quadrature	0-5	80	0-5	Screw wire terminal
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PG-4CH	USB 2.0	4	A/B quadrature	0-5	80	0-5	Screw wire terminal
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RELAY							
product	Interface	Number of channels	Number of outputs	Input connector	Output connectors	Voltage range [V]	Electrical connection

USB RELAY	USB 2.0	2	2 per channel	M8-3pinM	M8-4pinF	0-30	Screw wire terminal
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INTERFACE CARDS					
product	Type	Interface	Number of Channels	Max data thruopt [MB/s]	External power connector

PCE-U3-2	USB 3.0	PCIe 1x	2	380	SATA
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PCE-U3-4	USB 3.0	PCIe 4x	4	1520	SATA, MOLEX
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product	Interface	Number of outputs	Analog input connector	Output connectors	Input range [V]	Output logic [V]	Input resolution	Sampling rate [kS/s]	Weight [g]
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SYNCHRON	USB 2.0	2	BNC	M8-3pinF	±10, ±5, ±2.5, ±1.25, 0-10, 0-5, 0-2.5, 0-1.25	0-5	16bit	50	600
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product	Interface	Number of outputs	Output connectors	Output logic [V]	Signal range [m]	Weight [g]
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WIRELESS SYNC	USB 2.0	2	BNC	0-5	200	600
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product	Interface
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RS-USB	USB 2.0
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## DEVICES & PC COMPONENTS

AD16-U-LC

RS-USB

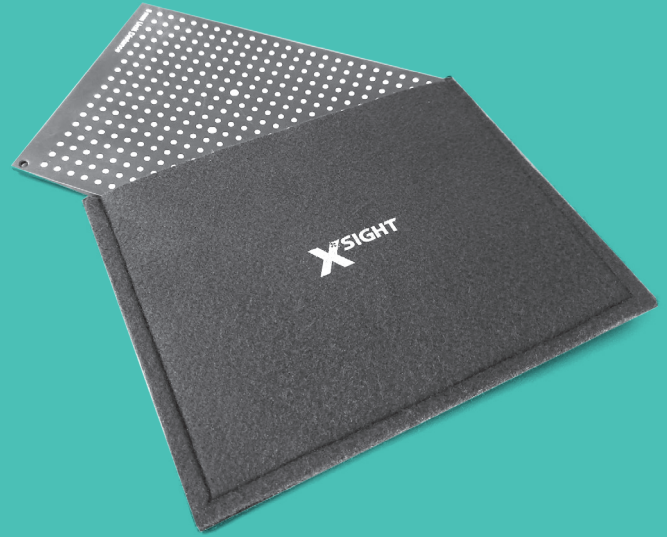
PCE-U3-2, PCE-U3-4

PG-2CH, PG-4CH, USB RELAY



## GRIDS

Grids for calibration



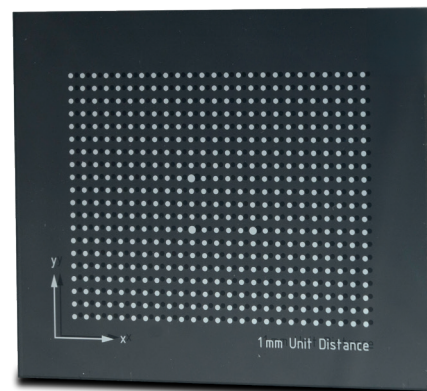
Product	Dimensions [mm]	Unit distance [mm]	Thickness [mm]	Origins
M007-MG	15×13	0.125	1	MONO
M009-MG	15×13	0.25		
M012-MG	22×19	0.5		
M025-MG	34×29	1	3	
M050	65×45	2 or 3		
M100	110×65	5		
M200	200×150	8		
M400W	450×350	24		
M600	600×450	24		
M800	790×430	36		
J100	110×65	3		DUAL
J200	200×150	5		
J600	650×150	8		
J800	800×200	23		
D400	400×150	8	MONO/ DUAL (double-sided)	

## GRIDS

M050-J800

## MICROGRIDS

M007-MG – M025-MG



# X<sup>SIGHT</sup>

