BAU -023x / -024x

Gigabit Ethernet Flächenkamera
NCHG Serie monochrome/Farbe /

Gigabit Ethernet matrix camera
NCHG series monochrome/color

Technische Beschreibung / *Specification*

Chip / ***Sensor***	CMOS, Unterschiedliche Sensorgrößen / *Different sensor sizes*
Shutter, Auslesemodus / ***readout mode***	Global shutter, progressive scan readout
Auflösung / ***Resolution***	Siehe Übersichtstabelle / *see overview*
Chipgröße / ***Scan area***	Siehe Übersichtstabelle / *see overview*
Pixelgröße / ***Pixel size***	Siehe Übersichtstabelle / *see overview*
Objektivanschluss / ***Lens mount***	C-mount
Bildwechselfrequenz / ***Frame rate***	Siehe Übersichtstabelle / *see overview*
Spannungsversorgung / ***Voltage feed***	20…30 VDC oder / *or* 48 VDC (PoE)
Leistungsaufnahme / ***Power drain***	Siehe Übersichtstabelle / *see overview*
Anschluss für Daten, Steuerung / ***Data, control interface***	Standard Einzelkabel / *standard single cable* 1000 Base-T, Cat6 empfohlen / *recommended*, mindestens / *minimum* Cat5e
Trigger / **Flash** **(Digital Input /Output)**	Siehe Übersichtstabelle / *see overview*
1000 Base-T interface	1000 Mbit / sec
IP Konfiguration / ***configuration***	Persistente / *persistent* IP, DHCP / LLA
Datenpaketgröße / ***channel packet size***	576 Byte (default) … 65535 Byte, *jumbo frames supported*
Lagerungstemp. / ***Storage temperature***	-10 °C … +70 °C
Betriebstemp. / ***Operating temperature***	+5 °C … + 50 °C
Gehäusebetriebstemperatur / ***Housing operating temperature***	max. +50 °C
Feuchtigkeit / ***Humidity***	10 % … 90 %, nicht kondensierend / *non condensing*
Konformität / ***Conformity***	CE, FCC Part 15 class B, RoHS compliant
Gehäuse / ***Housing***	Aluminium
Abmessungen / ***Dimensions***	52 mm x 52 mm x 55 mm
Gewicht / ***Weight***	232 g

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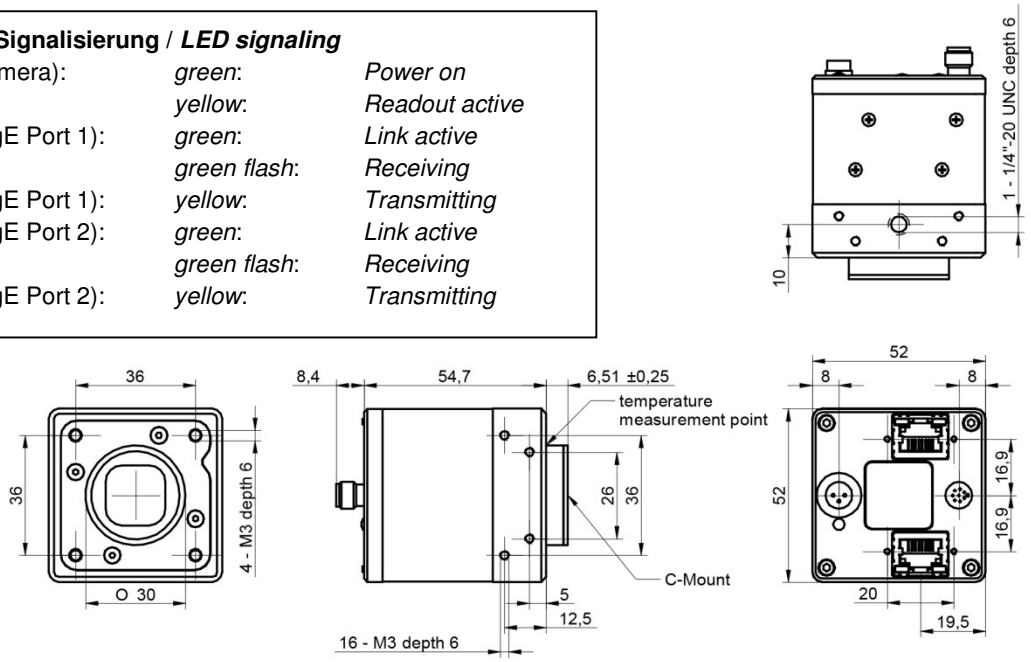
BAU -023x / -024x

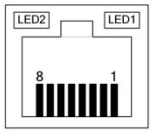
Technische Zeichnung / *Technical drawing*

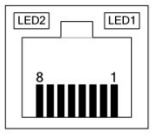
LED-Signalisierung / ***LED signaling***

1 (Camera):	*green*:	*Power on*
	yellow:	*Readout active*
2 (GigE Port 1):	*green*:	*Link active*
	green flash:	*Receiving*
3 (GigE Port 1):	*yellow*:	*Transmitting*
4 (GigE Port 2):	*green*:	*Link active*
	green flash:	*Receiving*
5 (GigE Port 2):	*yellow*:	*Transmitting*

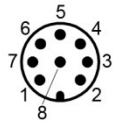
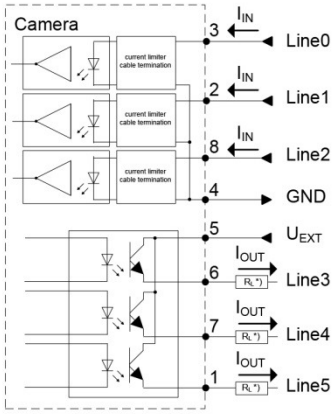


Pinbelegung elektrische Anschlüsse / *Pin assignment electrical interfaces*

Data / Control 1000 Base-T (Port 1)	Type: RJ45 8P8C mod jack
	1: MX1+ 2: MX1- 3: MX2+ 4: MX3+ 5: MX3- 6: MX2- 7: MX4+ 8: MX4-

Data / Control 1000 Base-T (Port 2)	Type: RJ45 8P8C mod jack
	1: MX1+ 2: MX1- 3: MX2+ 4: MX3+ 5: MX3- 6: MX2- 7: MX4+ 8: MX4-

Power	Type: Lumberg RSMESD / 3 pin
	1: Power VCC+ 3: GND 4: not used
	Power cable wires color: 1 = brown 3 = blue 4 = black

Input / Output	Type: Lumberg RSMESD 8pin.
	 *) resistor must be used, drawing shown above example for using high active signal
	I/O cable wires color *): 1 = white 2 = brown 3 = green 4 = yellow 5 = grey 6 = pink 7 = blue 8 = red

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BAU -0230 / -0231 / -0240 / -0241

Variantenübersicht / ***Variants overview***				
	BAU-0230	**BAU-0231**	**BAU-0240**	**BAU-0241**
Chip / ***Sensor***	2/3“ progressive scan CMOS		1“ progressive scan CMOS	
Shutter / *Shutter*	global shutter		global shutter	
Größe / *Scan area*	11,26 x 5,98 mm²	11,26 x 5,98 mm²	11,26 x 11,26 mm²	11,26 x 11,26 mm²
Pixelgröße / *Pixel size*	5,5 x 5,5 µm²		5,5 x 5,5 µm²	
	Monochrome	Color	Monochrome	Color
Farbfilter / Color filter	-	RGB Bayer mosaic	-	RGB Bayer mosaic
Auflösung / ***Resolution***	2048 x 1088 px	2048 x 1088 px	2048 x 2048 px	2048 x 2048 px
Bildwechselfrequenz / ***Frame rate***	53 fps (Full Frame HQ) 105 fps (Full Frame)		28 fps (Full Frame HQ) 56 fps (Full Frame)	
Belichtungszeit / ***Exposure time***	20 µs…1 s (step: 1 µs)		20 µs…1 s (step: 1 µs)	
Verstärkungsfaktor / ***Gain control***	0…12 dB		0…12 dB	
Interner Bildspeicher / ***Image data buffer***	max. 110 Bilder / *images*		max. 60 Bilder / *images*	
Pixel clock	48…20 MHz *depending on pixel format*		48…20 MHz *depending on pixel format*	
A/D converter	10 *or* 12 bit *depending on pixel format*		10 *or* 12 bit *depending on pixel format*	
Partial Scan	✓		✓	
Binning 2x2, 2x1, 1x2	✓		✓	
Farbmodelle / ***Color models***	Mono	RGB, Mono	Mono	RGB, Mono
Farbanpassungen / ***Color adjustment***	-	✓	-	✓
Optischer Filter / ***Optical filter***	Dust protection (on request: super polished, IR cut, daylight or no filter)	Micros UV/IR Cut (on request: dust protection, super polished, IR cut, daylight or no filter)	Dust protection (on request: super polished, IR cut, daylight or no filter)	Micros UV/IR Cut (on request: dust protection, super polished, IR cut, daylight or no filter)
Versorgung / ***Power***	**Dedicated 3 pin power interface:** VCC: 20…30 VDC, I: 420…272 mA **Power over Ethernet (PoE):** Class 0 device (via 1000 Base-T cable) VCC: 48VDC (30…38 VDC) I: 238…155 mA Supported by port 1 (at the top)		**Dedicated 3 pin power interface:** VCC: 20…30 VDC, I: 397…304 mA **Power over Ethernet (PoE):** Class 0 device (via 1000 Base-T cable) VCC: 48VDC (30…38 VDC) I: 259…160 mA Supported by port 1 (at the top)	
PoE	✓	✓	✓	✓
Leistungsaufnahme / ***Power consumption***	approx. 7,7 W		approx. 8,4 W	
External Trigger	Line 0 / Line 1 / Line 2: trigger signal, opto decoupled $U_{IN(low)}$: 0,0…4,5 VDC, $U_{IN(high)}$: 11…30 VDC, I_{IN} = max. 10 mA, rising edge (invert = false), min. impulse length: 2,0 µs			
Flash-Output	Line 3 / Line 4 / Line 5: opto decoupled U_{EXT}: 5…30 VDC, I_{OUT}: max. 100 mA, high active (invert = false)			

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