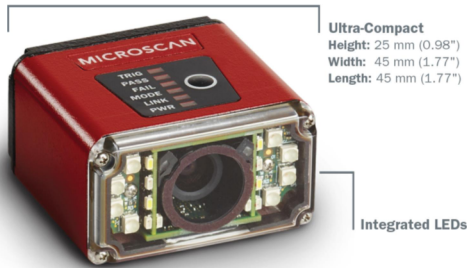


**Codeprüfung  
mit Sicherheit!**

**Barcode Validierer  
für die  
Code-Evaluierung**



**Dimensionen**

Höhe: 25 mm  
Breite: 45 mm  
Länge: 45 mm  
Gewicht: 68 g

**Gehäuse**

IP65/67 Aluminium

**Umgebungsbedingungen**

Betriebstemperatur: 0° - 45°C  
Lagertemperatur: -50° - 75°C  
Luftfeuchtigkeit: 5% - 95% (nicht kondensierend)

**Emissionen**

EN 55022:2010 Class A Limits

**Elektrische Daten**

4.75-30 VDC, 200 mV, p-p max ripple, 150 mA at 24VDC (typ.)

**Konnektoren**

M12 12 Pin Power, M12 8-Pin Ethernet

**Passiv POE**

424 Volt Power over Ethernet, Type B, benötigt passive POE Stromversorgung

**Kommunikation**

RS-232, Ethernet TCP/IP, Ethernet/IP, Profinet I/O

**Diskrete I/O**

2in 3out: Optoisolierter Trigger Eingang  
Neuer Master Eingang: Bi-Direktional, Optoisoliert, 1-28V (10mA @ 28 VDC)  
Strobe Outpu, 2 standard outputs, Bidirektional, Optoisoliert, 1-28 V (Ice < 100mA @ 24 VDC, userbegrenzt)

**Beleuchtung**

Innen : 4 rote LED, 625nm nominal  
Innen : 4 weiße LED  
Aussen : Rot, Weiß, Blau oder IR wahlweise  
Lichtmodus: Innen oder Aussen, Aus, An, Strobe, Power Strobe, Power Strobe nur Aussen.

**Geschwindigkeit**  
800 MHz

**Lichtindikatoren**

TRIG,PASS,FAIL,MODE,LINK,PWR LEDs  
2 Zielmuster LEDs, 2Inspektion erfolgt, Grüne blitz LEDs

**Speicher**

2 GB Non-Volatile-Flash, 256 MBRam

**Kommunikation**

RS-232, Ethernet TCP/IP, Ethernet/IP, Profinet I/O

**Software**

AutoVision Sensor, AutoVision, VisionScape

**FTP Bildspeicherung:** Unterstützt

**CMOS Sensor Optionen**

WVGA (Mono) : 0.34 MP (0752 x 0480 pixel)  
SXGA (Mono) : 1.20 MP (1280 x 0960 pixel)  
QSXGA(Color) : 5.00 MP (2592 x 1944 pixel)

**Verschluss**

Global (WVGA,SXGA), Rolling (QSXGA)

**Belichtung**

WVGA 50,0 bis 66,7 µs, SXGA 66,0 bis 58,8 µs, QSXGA 66,0 bis 66,7 µs,

**Optik**

Fest: Standard Density (5,2 mm), HD (8,0 mm), Ultra HD (16 mm)

**Fokus**

Fest:  
(SD,HD) 50,102,190 oder 300 mm  
( UHD ) 64 oder 400 mm  
Autofokus:  
(SD, HD) 50 bis 300 mm  
( UHD ) 40 bis 400 mm

**Symbolgien**

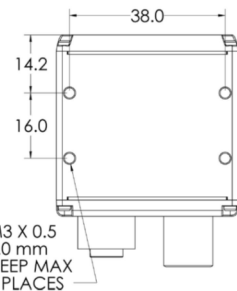
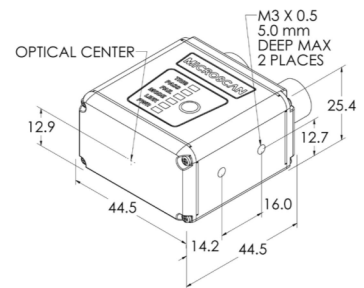
2D: Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code  
Stacked: PDF417, MicroPDF417, GS1 Databar (Composite and Stacked)  
Linear: Code 39, Code 128, BC412, Interleaved 2 of 5, UPC/EAN, Codabar, Code 93, Pharmacode, PLANET, POSTNET, Japanese Postal, Australia Post, Royal Mail, Intelligent Mail, KIX

**Sicherheit und Qualität**

FCC, CE, UL, RoHS-Compliant

**QMS Zertifikation**

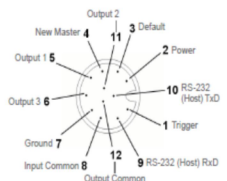
www.microscan.com/quality



**Note:** Nominal dimensions in MM are shown. Typical tolerances apply.

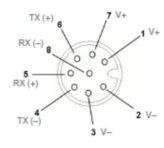
**CONNECTOR A  
M12 12-Pin Plug:**

Pin	Function
9	Host Rx/D
10	Host Tx/D
2	Power
7	Ground
1	Trigger
8	Input Common
3	Default
4	New Master
5	Output 1
11	Output 2
6	Output 3
12	Output Common



**CONNECTOR B  
M12 8-Pin Socket:**

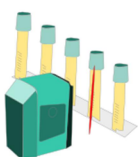
Pin	Function
1	V+
2	V-
3	V-
4	TX (-)
5	RX (+)
6	TX (+)
7	V+
8	RX (-)



**Per WEBLINK Oberfläche konfigurierbar:**

Mithilfe der WebLink-Benutzeroberfläche können Sie den MicroHAWK-Leser über jeden beliebigen Webbrowser einrichten, testen, steuern und überwachen. Geben Sie dazu einfach die IP-Adresse Ihres Lesegeräts in einem Internetfähigen Gerät ein, dann erhalten Sie nach dem intuitiven Set-up-Vorgang Zugriff auf das Steuerungssystem.

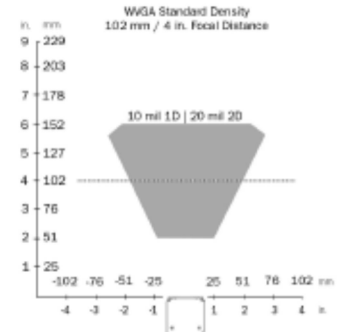
**CQvalidation**



**WVGA Sensor Fixed Focus Read Ranges**

Focus Distance	WVGA HIGH-DENSITY							WVGA STANDARD DENSITY					
	Field of View		Typical 2D MII Size	Depth of Field (mm)		Min. 2D MII Size	Field of View		Typical 2D MII Size	Depth of Field (mm)		Min. 2D MII Size	
	In.	mm	mil size	Inside	Outside	mil size	In.	mm	mil size	Inside	Outside	mil size	
2.0	50	1.4	35	7.5	43	58	5	2.0	50	10	38	65	7.5
2.5	64	1.5	38	7.5	55	73	5	2.2	55	10	49	78	7.5
3.2	81	1.9	49	10	65	97	7.5	2.8	70	15	56	106	10
4.0	102	2.6	65	10	83	121	10	3.7	94	20	52	152	15
5.2	133	3.1	80	15	90	176	10	4.5	115	20	78	187	15
7.5	190	4.5	114	20	133	246	15	6.5	165	30	128	252	20
11.8	300	7.1	180	30	179	422	30	10.2	260	40	219	381	30

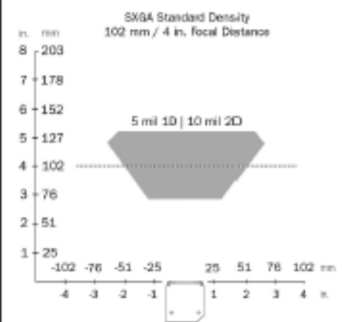
**Example Read Range:**



**SXGA Sensor Fixed Focus Read Ranges**

Focus Distance	SXGA HIGH-DENSITY					SXGA STANDARD DENSITY							
	Field of View		Typical 2D MII Size	Depth of Field (mm)		Min. 2D MII Size	Field of View		Typical 2D MII Size	Depth of Field (mm)		Min. 2D MII Size	
	In.	mm	mil size	Inside	Outside	mil size	In.	mm	mil size	Inside	Outside	mil size	
2.0	50	1.5	37	5	47	55	3.3	2.1	53	7.5	37	64	5
2.5	64	1.6	41	5	58	70	3.3	2.3	59	7.5	49	78	5
3.2	81	2.0	52	7.5	70	92	5	2.9	75	7.5	60	102	7.5
4.0	102	2.7	69	7.5	88	116	5	3.9	100	10	74	131	7.5
5.2	133	3.4	85	10	107	159	7.5	4.8	123	10	88	161	10
7.5	190	4.8	122	15	137	243	10	6.9	175	15	115	265	15
11.8	300	7.6	192	20	185	400	15	10.9	277	20	224	427	20

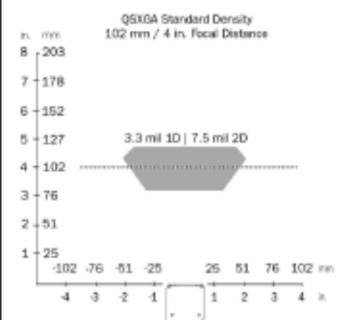
**Example Read Range:**



**QSXGA Sensor Fixed Focus Read Ranges**

Focus Distance	QSXGA HIGH-DENSITY					QSXGA STANDARD DENSITY							
	Field of View		Typical 2D MII Size	Depth of Field (mm)		Min. 2D MII Size	Field of View		Typical 2D MII Size	Depth of Field (mm)		Min. 2D MII Size	
	In.	mm	mil size	Inside	Outside	mil size	In.	mm	mil size	Inside	Outside	mil size	
2.0	50	1.4	35	5	46	55	3.3	2.0	51	5	43	59	3.3
2.5	64	1.5	39	5	59	68	3.3	2.2	57	5	55	72	3.3
3.2	81	2.0	50	5	74	87	3.3	2.8	72	5	69	92	5
4.0	102	2.6	66	5	94	110	3.3	3.8	96	7.5	80	124	5
5.2	133	3.2	81	7.5	112	153	5	4.6	117	7.5	107	159	7.5
7.5	190	4.6	116	10	154	227	7.5	6.6	168	10	150	231	10
11.8	300	7.2	184	15	227	373	10	10.4	265	15	203	397	15

**Example Read Range:**



**UHD Fixed Focus Read Ranges**

SXGA UHD - 64 MM				
Min. 1D Element	Depth of Field (mm)		Field of View	
	Inside	Outside	Hor.	Vert.
2	63.5	64.5	16.5	12.5
2.5	62.5	66		
3	62.5	66		
3.3	62.5	67		

SXGA UHD - 400 MM				
Min. 2D Element	Depth of Field (mm)		Field of View	
	Inside	Outside	Hor.	Vert.
7.5	360	415	114	86
10	351	429		
15	325	451		
20	309	466		
30	293	512		
40	303	563		

**Note:** Minimum 1D element is typically 1/2 the size of minimum 2D element. Example: 10 mil 2D = 5 mil 1D.

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**WVGA Sensor Autofocus Read Ranges**

Object Distance Std Models		WVGA HIGH-DENSITY AUTOFOCUS			
		Horizontal Field of View		Vertical Field of View	
in.	mm	in.	mm	in.	mm
2.0	50	1.3	33.5	0.8	21.5
2.5	64	1.7	42.0	1.0	26.5
3.2	81	2.1	52.5	1.3	33.0
4.0	102	2.6	65.0	1.6	41.0
5.2	133	3.3	84.5	2.1	53.5
7.5	190	4.7	119.5	3.0	75.0
11.8	300	7.4	187.0	4.6	117.0

Object Distance Std Models		WVGA STANDARD DENSITY AUTOFOCUS			
		Horizontal Field of View		Vertical Field of View	
in.	mm	in.	mm	in.	mm
2.0	50	2.1	52.5	1.3	34.0
2.5	64	2.6	65.5	1.6	41.5
3.2	81	3.2	82.0	2.0	51.0
4.0	102	4.0	102.0	2.5	64.0
5.2	133	5.2	132.0	3.2	82.0
7.5	190	7.3	185.0	4.5	115.5
11.8	300	11.3	288.0	7.1	180.0

Symbol Size	WVGA High-Density Read Range Testings			
(mils)	IE (mm)	PPE	OE (mm)	PPE
3.3	50	1.9	53	1.8
5	50	2.8	57	2.5
7.5	50	4.2	61	3.6
10	50	5.6	64	4.6
15	50	8.5	71	6.3

Symbol Size	WVGA Standard Density Read Range Testings			
(mils)	IE (mm)	PPE	OE (mm)	PPE
5	50	1.8	60	1.5
7.5	50	2.7	69	2
10	50	3.6	77	2.5
15	50	5	92	3.1
20	50	7.2	99	4

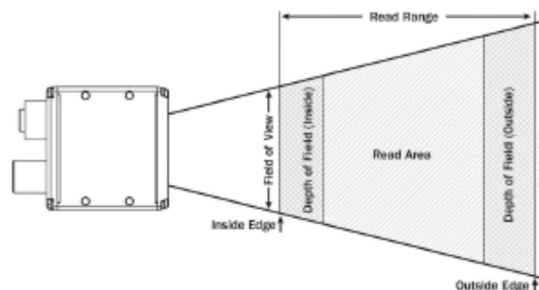
Object Distance Std Models		SXGA HIGH-DENSITY AUTOFOCUS			
		Horizontal Field of View		Vertical Field of View	
in.	mm	in.	mm	in.	mm
2.0	50	1.4	36.5	1.1	27.4
2.5	64	1.8	46.0	1.4	34.5
3.2	81	2.3	57.2	1.7	42.9
4.0	102	2.8	71.4	2.1	53.6
5.2	133	3.6	90.5	2.7	67.9
7.5	190	5.0	127.0	3.8	95.3
11.8	300	7.8	198.4	5.9	148.8

Object Distance Std Models		SXGA STANDARD DENSITY AUTOFOCUS			
		Horizontal Field of View		Vertical Field of View	
in.	mm	in.	mm	in.	mm
2.0	50	2.3	57.2	1.7	42.9
2.5	64	2.9	73.0	2.2	54.8
3.2	81	3.5	88.9	2.6	66.7
4.0	102	4.3	109.5	3.2	82.2
5.2	133	5.6	141.3	4.2	106.0
7.5	190	7.9	200.0	5.9	150.0
11.8	300	12.4	314.3	9.3	235.7

Symbol Size	SXGA High-Density Read Range Testings			
(mils)	IE (mm)	PPE	OE (mm)	PPE
3.3	50	3.0	NA	NA
5	50	4.6	144	1.7
7.5	50	6.8	208	1.8
10	50	9.2	291	1.7
15	50	13.9	374	2

Symbol Size	SXGA Standard Density Read Range Testings			
(mils)	IE (mm)	PPE	OE (mm)	PPE
5	50	2.7	94	1.6
7.5	50	4.4	143	1.7
10	50	5.6	186	1.7
15	50	8.7	282	1.7
20	50	11.5	308	2.1

SXGA UHD AUTOFOCUS			
Min. 2D Element	Horizontal Field of View (mm)		Read Range (mm)
mil size	Inside	Outside	Autofocus
2	10	24	40 - 104
3.3	10	36	40 - 146
5	10	39	40 - 150



Hersteller OMRON-MICROSCAN-LVS  
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TÜV-USA ISO 9001 Registriert

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