

## MICROHAWK® ID-45

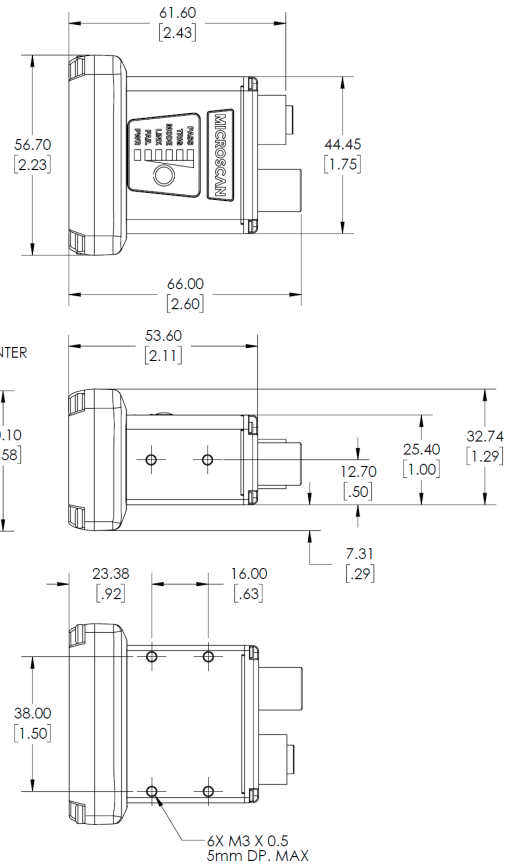
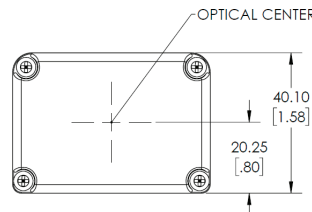
### SPECIFICATIONS AND OPTIONS



**Ultra-Compact**  
**Height:** 40.10 mm (1.58")  
**Width:** 56.70 mm (2.23")  
**Length:** 53.60 mm (2.11")

**Integrated LEDs**

**WebLink Interface Onboard**



Note: Nominal dimensions shown. Typical tolerances apply.

#### DIMENSIONS

**Height:** 40.10 mm (1.58")  
**Width:** 56.70 mm (2.23")  
**Length:** 53.60 mm (2.11")  
**Weight:** 98.47 g (3.47 oz.)

#### ENCLOSURE

IP-65/67, Aluminum

#### ENVIRONMENTAL

**Operating Temperature:** 0° to 45° C (32° to 113° F)  
**Storage Temperature:** -50° to 75° C (-58° to 167° F)  
**Humidity:** 5% to 95% (non-condensing)

#### EMISSIONS

EN 55022:2010 Class A Limits

#### ELECTRICAL

10-30 VDC, 200 mV p-p max ripple, 150 mA at 24 VDC (typ.)

#### CONNECTOR

M12 12-Pin Power/I/O, M12 8-Pin Ethernet

#### COMMUNICATION

RS-232, Ethernet TCP/IP, PROFINET, EtherNet/IP™, Passive Power over Ethernet (PoE), 24V

#### DISCRETE I/O

3 in/3 out, Optoisolated Trigger Input; New Master: Bi-directional, Optoisolated, 4.5-28 V rated (10 mA @ 28 VDC); Outputs (1, 2, 3): Bi-directional, Optoisolated, 1-28 V rated ( $I_{CE} < 100$  mA at 24 VDC, current limited by user)

#### ILLUMINATION

High-Output LEDs: Inner: 4 Red, 4 White; Outer: 24 Red (624 nm)

#### INDICATORS

TRIG, PASS, FAIL, MODE, LINK, PWR LEDs; 2 Target Pattern LEDs; 2 Good Read Green Flash LEDs

#### SPEED

High-Speed (Maximum Sensor FPS)

#### MEMORY

2 GB Non-Volatile Flash, 256 MB RAM

#### DECODER

X-Mode (Poor or Damaged 1D/2D + DPM)

#### OPTICS

High-Density, UHD

#### SENSOR

**WVGA (Mono):** CMOS 0.34 MP (752 x 480)  
**SXGA (Mono):** CMOS 1.2 MP (1280 x 960)

#### SHUTTER

Global (WVGA, SXGA)

#### EXPOSURE

50 - 100,000, Default: 2,500  $\mu$ s

#### FOCUS

**HD:** Liquid Lens Autofocus (42 - 300 mm)  
**UHD:** Liquid Lens Autofocus (32 - 150 mm)

#### ACQUISITION SPEED

**WVGA:** Up to 60  
**SXGA:** Up to 42

#### SYMBOLOGIES

**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

#### SAFETY AND QUALITY

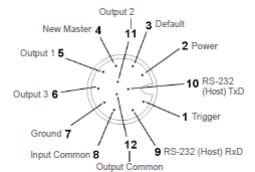
FCC, CE, RoHS-Compliant

#### QMS CERTIFICATION

www.microscan.com/quality

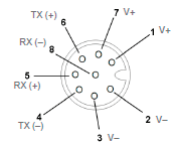
#### CONNECTOR A: M12 12-Pin Plug

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



\*24V Passive PoE Only, MODE B Only

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 Specifications are subject to change. For complete technical information, please see the user manual. For current warranty information about this product, please visit [www.microscan.com/warranty](http://www.microscan.com/warranty).



www.microscan.com

# MICROHAWK® ID-45 FIELD OF VIEW AND READ RANGE CHARTS

## WVGA and SXGA Autofocus, HD

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		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

Symbol Size (mils)	WVGA High-Density Read Range Testings			
	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 (mils)	SXGA High-Density Read Range Testings			
	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

**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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## SXGA Autofocus, UHD

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

