

MICROHAWK® ID-45

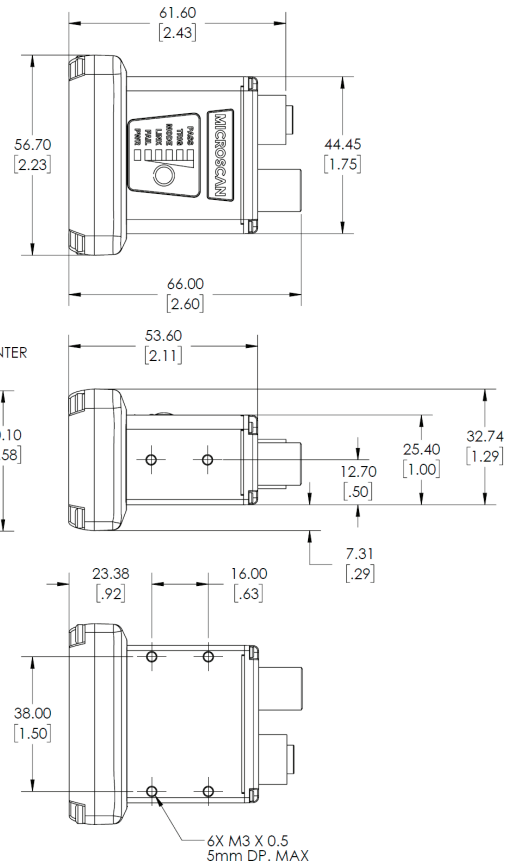
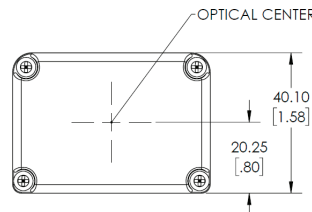
SPECIFICATIONS AND OPTIONS



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



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 μ 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

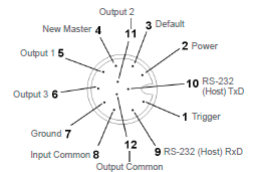
QMS CERTIFICATION

www.microscan.com/quality

Note: Nominal dimensions shown. Typical tolerances apply.

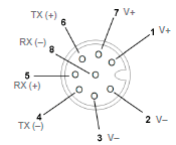
CONNECTOR A: M12 12-Pin Plug

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.



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

