

VISIONSCAPE[®] GIGE CAMERA

CONFIGURATION GUIDE



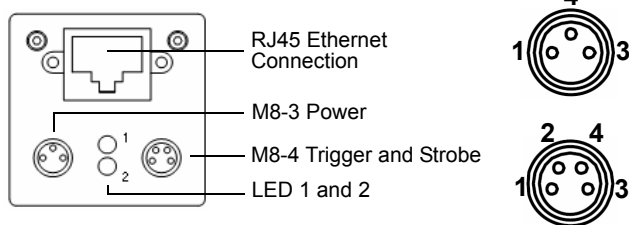
Hardware Required

Item	Description	Part Number
1	Visionscape GigE Camera	98-000XXX-01
2	Basic Visionscape GigE Camera License*	VGL0-0DD0
3	Basic Visionscape GigE Camera with IntelliFind [®] License*	VGL0-1DD0
4	Power Supply <i>or</i>	98-000138-01
	Camera Power M8-3 to Pigtail 5M	98-000129-01
5	Camera Strobe/Trigger M8-4 to Flying Lead 5M	98-000126-01
6	CAT6 Ethernet with Jackscrews to RJ45 High Flex 2M <i>or</i>	98-000133-01
	CAT6 Ethernet with Jackscrews to RJ45 High Flex 5M	98-000134-01
7	PCIe DIO Card 16 In 16 Out Isolated with Cable and Terminal	98-000130-01
8	PCIe DIO Card 16 In 16 Out Isolated with Cable and Terminal (PNP) Current Sourcing	98-000142-01
9	GigE 4 Port Switch – POE Injection	98-000124
10	GigE Power Injector – 2 Inputs and 2 Outputs	98-000125
11	GigE 5 Port Switch	98-000131
12	Single Port GigE Network PCIe Interface Card	98-000140
13	Dual Port GigE Network PCIe Interface Card	98-000132
14	C-Mount Lens	98-9280057X

*Important: Visionscape licenses are implemented by means of a USB hardware key. The key must be present in the host PC before Visionscape software will recognize Omron Microscan GigE Cameras.

Power and Signal Connections

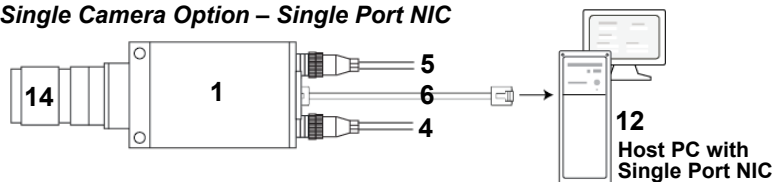
Visionscape GigE Camera (Back View)



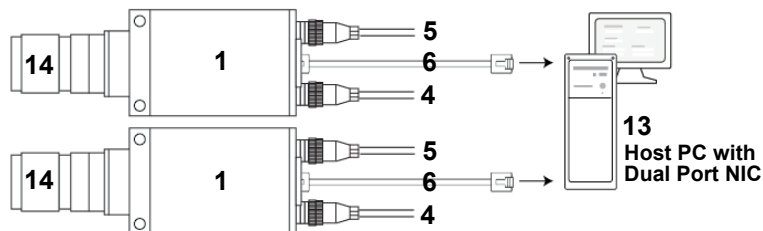
Power Connector		
Pin	Signal	Description
1	Vcc	BROWN WIRE; 24 volts @ 350ma typical (~3.5W) 8VDC @ 370ma thru 30VDC @ 120ma
3	Ground	BLUE WIRE; Vcc Return
4	N/C	BLACK WIRE
Strobe/Trigger Connector		
Pin	Signal	Description
1	TrigIN+	BROWN WIRE; External Trigger Input +
2	TrigIN-	WHITE WIRE; External Trigger Input -
3	Strobe	BLUE WIRE; Strobe Output
4	U _(ext)	BLACK WIRE; User-supplied voltage for Flash output: 5-30VDC (24VDC @ 16ma recommended)

Typical System Configurations

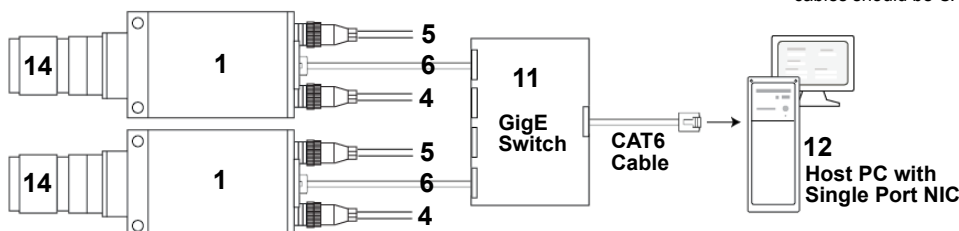
Single Camera Option – Single Port NIC



Dual Camera Option 1 – Dual Port NIC (Maximum Bandwidth)



Dual Camera Option 2 – GigE Switch (Shared Bandwidth)



Notes: For the highest throughput and optimal use of GigE bandwidth, each camera should be connected to its own NIC port (as shown in Dual Camera Option 1). In applications where bandwidth is not an issue, cameras can be connected to the host PC via a GigE switch (as shown in Dual Camera Option 2).

Refer to the *Visionscape GigE Camera Guide* for information about wiring Visionscape PCIe Digital I/O Boards.

Consult with the Omron Microscan Solutions Group concerning applications that use more than 4 (up to 8) cameras, or concerning applications using color cameras.

Omron Microscan GigE Cameras must be connected to the host PC using a private network – not one shared with other applications, such as a factory floor or office data network. It is strongly recommended that the host PC NIC be set to a private static Class C IP address, such as 192.168.0.100/255.255.0.

Visionscape GigE Cameras must be connected to a network interface card (NIC) (commonly referred to as an Ethernet card). All components must be capable of GigE operation (1000BASE-T). Ethernet cables should be CAT5E or CAT6 (recommended).

Visionscape GigE Camera Configuration

Visionscape GigE Camera Accessories

Accessory	Part Number	Description
Starter/Evaluation Kit		
GigE Camera Starter/Evaluation Kit	98-000139-01	Visionscape GigE Camera Starter/Evaluation Kit
Power Supply		
Power Supply	98-000138-01	GigE Camera Power Supply Kit, Universal AC
Cables		
Camera Strobe/Trigger	98-000126-01	M8-4 to Pigtail 5M
Camera Power	98-000129-01	M8-3 to Pigtail 5M
CAT6 Ethernet	98-000133-01	CAT6 Ethernet Cable with Jackscrews to RJ45 High Flex 2M
CAT6 Ethernet	98-000134-01	CAT6 Ethernet Cable with Jackscrews to RJ45 High Flex 5M
I/O Boards		
PCIe DIO Card	98-000130-01	16 In 16 Out Isolated with Cable and Terminal
PCIe DIO Card	98-000142-01	16 In 16 Out Isolated with Cable and Terminal (PNP) Current Sourcing
GigE Port Adapters		
4 Port Switch	98-000124	GigE 4 Port Switch – POE Injection
Power Injector	98-000125	GigE Power Injector – 2 Inputs and 2 Outputs
5 Port Switch	98-000131	GigE 5 Port Switch
Single Port Interface Card	98-000140	Single Port GigE Network PCIe Interface Card
Dual Port Interface Card	98-000132	Dual Port GigE Network PCIe Interface Card
Lenses		
C-Mount Lens	92-92800571	8.5 mm Lens
C-Mount Lens	92-92800572	12 mm Lens
C-Mount Lens	92-92800573	16 mm Lens
C-Mount Lens	92-92800574	25 mm Lens
C-Mount Lens	92-92800575	35 mm Lens
C-Mount Lens	92-92800576	50 mm Lens
C-Mount Lens	92-92800577	75 mm Lens
Mounting Option		
Demo Stand	98-HEDSL	Visionscape GigE Camera Demo Stand
Licenses		
Basic Visionscape GigE Camera License*	VGL0-0DD0	Visionscape GigE Camera License USB Hardware Key
Basic Visionscape GigE Camera with IntelliFind® License*	VGL0-1DD0	Visionscape GigE Camera with IntelliFind® License USB Hardware Key
Documentation		
Omron Microscan Tools Drive	37-000010-01	Software, Documentation, links to website

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Note: Additional accessories are available in the Omron Microscan Product Pricing Catalog.

