

Cole-Parmer® Shop Microscopes

Take anywhere on the job—
ideal for lab, field, or shop work

Small size and rugged carrying case make it easy to take these shop microscopes anywhere! The cast aluminum frame with gray enamel finish measures only 9"H (22.9 cm). Wide-field 10x eyepiece features a direct-reading reticle with both inch and metric scales. Simply turn the eyepiece to bring the reticle into sharp focus—no calibration is needed. Dual knobs with rack and pinion focusing let you quickly refine the image. Penlight illuminator is fully adjustable in all directions by means of a ball joint; remove it for use elsewhere. Microscopes come with plastic carrying case, dust cover, and two AA batteries.



Easy-to-read inch and metric scales

Cole-Parmer®



Magnification	20x	40x	60x	100x
Catalog number	GY-03890-10	GY-03890-20	GY-03890-30	GY-03890-40
Inch scale (x100)	0.003"	0.0015"	0.001"	0.0005"
Metric scale (x100)	0.06 mm	0.03 mm	0.02 mm	0.01 mm
Working distance	23 mm	23 mm	23 mm	6.6 mm
Field of view	9.0 mm	4.5 mm	3.0 mm	1.8 mm
Price				

[GY-03890-55](#) Eyepiece without reticle, 10x.

Fits all shop microscopes above

[GY-03890-91](#) Replacement penlight illuminator

[GY-09376-01](#) Replacement batteries, AA. Pack of

Fits microscope	Repl. eyepieces with reticle			Replacement objectives		
	Cat. no.	Mag.	Price	Cat. no.	Mag.	Price
03890-10	GY-03890-51	10x		GY-03890-61	2x	
03890-20	GY-03890-52			GY-03890-62	4x	
03890-30	—		—	GY-03890-63	6x	
03890-40	GY-03890-54			GY-03890-64	10x	

Dual-Purpose Microscopes/Telescopes

Versatile—magnify up to 45x or
view objects at a distance

Scopes are constructed of durable aluminum and plastic. Lenses come with covers to protect against scratches. Eyepiece has a soft edge for comfort and safety. Models include a neck strap, a micro lens stand, hard carrying case, and carrying strap. Model 03098-00 also includes a soft vinyl case.

Close Focus Microscopes/Telescopes

Ideal for industrial applications in quality control and inspection. Easy to use—simply screw the micro lens and stand onto the monocular for close microscopic work. For distant viewing, unscrew the micro lens and stand, then use the monocular as a telescope. Focus is adjustable in both microscope and telescope modes.

Microscopes/Telescopes With Built-In Reticles

Ideal for macroscopic quality control and inspection procedures. Select scopes with straight line, square mesh, or cross hair reticle.

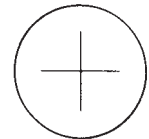
For microscopic viewing with models 03097-00, -10, and -30, screw the micro lens and stand onto the monocular. For distant telescopic viewing, unscrew the micro lens and stand, and use the monocular as a telescope (these scopes are not intended for close range telescopic viewing). Focus is adjustable in both microscope and telescope modes. Model 03098-00 has an adjustable focus distance from one foot at 17.5x to infinity at 8x.



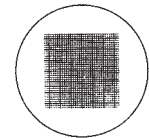
03098-00

Monocular, micro lens, and stand unscrew for versatility.

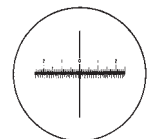
Scale References



Cross hair reticle 03098-00



Square mesh 1/10-mm scale
03097-30



Straight line 1/20-mm scale
03097-00, -10

Positioning Holders

These versatile holders allow easy positioning for hands-free operation of your scopes. Standard 1/4-20 screw hole lets you use holder with a standard tripod, or order our camera mount adapter 08024-51 to design your own support system.



[GY-03099-60](#) Positioning holder for 20-mm aperture scopes

[GY-03099-62](#) Positioning holder for 30-mm aperture scopes

[GY-08024-51](#) Camera mount adapter

Description	Close focus microscopes/telescopes				Microscopes/telescopes with built-in reticle			
Catalog number	GY-03096-00	GY-03096-10	GY-03096-30	GY-03096-40	GY-03097-00	GY-03097-10	GY-03097-30	GY-03098-00
As a microscope								
Magnification	20x	35x	40x	45x	25x	25x	25x	35x
Field of view	13.0 mm	7.2 mm	8.0 mm	6.3 mm	9.0 mm	11.0 mm	9 mm	7.0 mm
Working distance	79 mm	64 mm	65 mm	65 mm	75 mm	75 mm	75 mm	64 mm
As a telescope								
Magnification	6x	8x	8x	10x	8x	8x	8x	8x
Field of view	10°	7°	8.5°	6°	6.5°	8.5°	6.5°	6.5°
Magnification (close distance)	11x	19.5x	13.5x	15x	—	—	—	17.5x
Focus (close distance)	26 cm	30 cm	60 cm	70 cm	—	—	—	30 cm
Field (close distance)	36 mm	25 mm	72 mm	60 mm	—	—	—	23 mm
Field at 1000 m	175 m	122 m	148 m	105 m	115 m	148 m	115 m	115 m
Objective lens aperture	16 mm	20 mm	30 mm	30 mm	20 mm	30 mm	20 mm	20 mm
Exit pupil	2.6 mm	2.5 mm	3.7 mm	3 mm	2.5 mm	3.7 mm	2.5 mm	2.5 mm
Brightness	6.7	6.2	13.6	9	6.2	13.6	6.2	6.2
Dimensions: H† x dia (mm)	155 x 33	172 x 32	213 x 42	233 x 42	180 x 27	222 x 42	180 x 27	191 x 32
Price								

†Height specified is with micro lens and stand attached.

Cole-Parmer® Stereo and Stereozoom Microscopes

Deliver clear 3D images



A. Economy Stereomicroscope features 2x objective lens and widefield 10x eyepieces with diopter and interpupillary distance adjustments. Working distance is 80 mm. Eyepieces measure 34-mm OD. Use optional 15x eyepieces for greater magnifying power.

What's included incident (top) and transmitted (bottom) lighting. Also includes vinyl dust cover, on/off switch, and 6-ft (1.8/m) cord with three-prong plug.

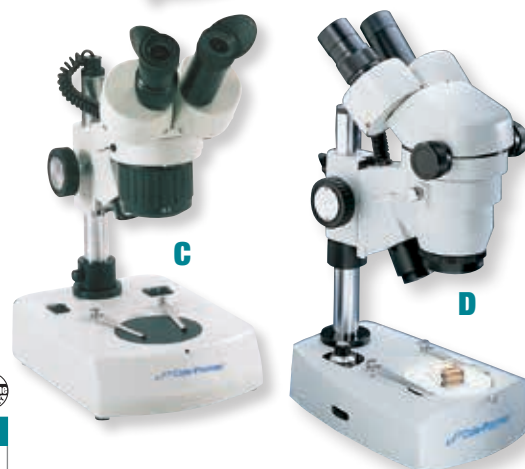
B. Economy Compact Dual-Power Stereomicroscopes have a working distance of 75 mm. They feature a 45° inclined swivel head with adjustable diopter and interpupillary controls. Heads rotate 360° for front position viewing. Paired 1x/3x or 2x/4x objectives are mounted in a revolving turret. Paired 10x widefield eyepieces have a 34-mm OD and accept reticles with 22.8-mm OD. Use optional 15x eyepieces for greater magnifying power.

C. Full-Size, Dual-Power Stereomicroscopes have a working distance of 84 mm. They feature a 45° inclined swivel head that rotates 360° and has adjustable diopter and interpupillary controls. Paired 1x/3x or 2x/4x objectives are mounted in a revolving turret. Change magnification by rotating the turret 90°. Paired 10x widefield eyepieces have a 34-mm OD and accept reticles with 22.8-mm OD.

The specially designed lamp directs light exactly where you want. The incident (top) light source has an adjustable beam and variable intensity control. The transmitted (bottom) light source is fluorescent, giving you optimum light and cool temperatures to prolong the life of a live specimen.

D-E. Stereozoom Microscopes feature stepless magnification through zoom control on viewing head. Head rotates 360°; models with standard stand can be raised or lowered for viewing different size objects. Widefield 10x eyepieces feature adjustable diopter and interpupillary distance for comfortable viewing.

Trinocular models include a port for mounting a 35-mm camera or video camera, video adapter with a 0.4x lens, and an SLR adapter with 2.0x lens; order T-mount separately below.



Total magnification	Head	Stand type	Illuminator(s)	Power (VAC, Hz)	Catalog number	Price
A. Economy stereomicroscope						
20x	Binocular	Standard	Top/bottom	115, 60	GY-03904-03	
B. Economy compact dual-power stereomicroscopes						
10x/30x	Binocular	Standard	Top/bottom	115, 60	GY-03905-10	
20x/40x			Top/bottom	115, 60	GY-03905-11	
C. Full-size dual-power stereomicroscopes						
10x/30x	Binocular	Standard	Top/bottom	115, 60	GY-48920-30	
20x/40x				230, 50	GY-48920-35	
			Top/bottom	115, 60	GY-48920-40	
				230, 50	GY-48920-45	
D. Binocular stereozoom microscopes						
10x to 30x, zoom	Binocular	Fixed arm	Top/bottom	115, 60	GY-03905-20	
15x to 45x, zoom					GY-03905-30	
10x to 40x, zoom	Binocular	Standard	Top/bottom	115, 60	GY-48920-00	
				230, 50	GY-48920-05	
		Universal	None	—	GY-48920-10	
E. Trinocular stereozoom microscopes						
10x to 40x, zoom	Trinocular	Standard	Top/bottom	115, 60	GY-48920-20	
				230, 50	GY-48920-25	

Accessories for "D" and "E"

GY-03904-50 Eyepieces, 15x magnification. Pair

GY-48920-50 Auxiliary objective lens, 0.5x. Reduces magnification by 50% and increases working distance from 80 mm to 135 mm

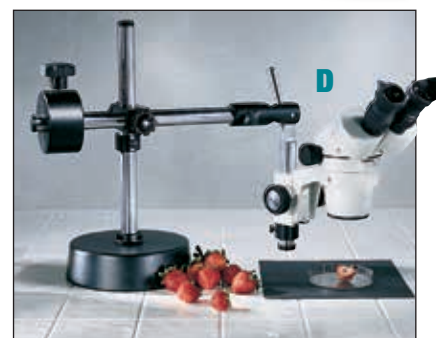
GY-48920-51 Auxiliary objective lens, 1.5x. Increases magnification by 50% and reduces working distance from 80 mm to 39 mm

GY-41310-10 Halogen task lamp for use with microscope 48920-10. Lamp features a 25"L (63.5 cm) gooseneck and a 3" (7.6 cm) dia magnetic base. Operates on 120 VAC, 60 Hz

T-mounts for Trinocular Microscopes

Trinocular microscopes 48920-20 and -25 require a T-mount when using the supplied SLR adapter. Select from T-mounts for three common camera brands at right.

Camera type	Catalog number	Price
Canon®	GY-48407-81	
Canon EOS	GY-48407-82	
Nikon®	GY-48407-83	



Modular Stereomicroscopes

Customize your own microscope

Use the components below to build a microscope that best suits your application. We offer a variety of microscope bodies, stands, eyepieces, and ring lights. Components are interchangeable—mix and match to design your perfect microscope! Preassembled microscope systems are available on page 507.

1. Microscope Bodies

Get crisp, high-resolution images and excellent stereoscopic effect. The 45° inclined head has adjustable diopter and interpupillary controls for custom comfort and sharp focus. Rotate body a full 360° and lock into any position. The eyepiece diameters on all models are 25 mm ID x 34 mm OD. Models 48403-35 and 48402-25 feature a vertically mounted photo tube for use with a video, 35-mm, or digital camera using an adapter—ideal for documenting, teaching, or recording images.



REQUIRED System Components

- 1) Body
- 2) Stand
- 3) Eyepieces

Objectives	Supplementary lenses	Eyepieces						Head style	Catalog number	Price
		10x (48402-58)		15x (48402-60)		20x (48402-62)				
		Total mag	Field dia (mm)	Total mag	Field dia (mm)	Total mag	Field dia (mm)			
Dual-power microscope body 48403-20										
1x/2x	—	10x, 20x	23.0, 11.5	15x, 30x	15.3, 7.7	20x, 40x	11.5, 5.8	Binocular	GY-48403-20	
Dual-power microscope bodies 48403-30, -35										
1x/3x	—	10x, 30x	23.0, 7.7	15x, 45x	15.3, 5.1	20x, 60x	11.5, 3.8	Binocular	GY-48403-30	
	0.5x	5x, 15x	46.0, 15.3	7.5x, 22.5x	30.6, 10.2	10x, 30x	23.0, 7.6	Trinocular	GY-48403-35	
	1.5x	15x, 45x	15.3, 5.1	22.5x, 67.5x	10.2, 3.4	30x, 90x	7.6, 2.5			
Stereozoom microscope body 48402-10										
1x to 3x	—	10x to 30x	23.0 to 7.7	15x to 45x	15.4-5.1	20x to 60x	11.5 to 3.8	Binocular	GY-48402-10	
	0.5x	5x to 15x	46.0 to 15.3	7.5x to 22.5x	30.6-10.2	10x to 30x	23 to 7.6			
	1.5x	15x to 45x	15.3 to 5.1	22.5x to 67.5x	10.2-3.4	30x to 90x	7.7 to 2.5			
Stereozoom microscope bodies 48402-20, -25										
0.7x to 4.5x	—	7x to 45x	32.8 to 5.1	10.5x to 67.5x	22.0-3.4	14x to 90x	16.4 to 2.6	Binocular	GY-48402-20	
	0.5x	3.5x to 22.5x	65.6 to 10.2	5.25x to 33.75x	44.0-6.8	7x to 45x	32.8 to 5.2	Trinocular	GY-48402-25	
	1.5x	10.5x to 67.5x	21.8 to 3.4	15.75x to 01.25x	14.6-2.2	21x to 135x	10.9 to 1.7			

2. Microscope Stands

Basic Microscope Stand 48404-00 features a plain base and one 94.5-mm stage plate with one white and one black side. Model 48404-30 has an incident illuminator port mounted on a 15"L x 13"W x 3/4"H (38.1 x 33.0 x 1.9 cm) laminate base.

Standard Microscope Stands 48404-20 and -25 feature both incident (top) and transmitted (bottom) illumination. Stands include two 94.5-mm dia stage plates. One plate is made of transparent glass; the other plate has one white and one black side.

Boom Microscope Stands 48404-40 and -45 are ideal when wide horizontal and vertical viewing are important. Stands have their own focusing slide block and illuminator port. Easily adjust height on the vertical pole and set it to wherever you need it with the clampscrew. Model 48404-45 can also be tilted 180° for added flexibility.

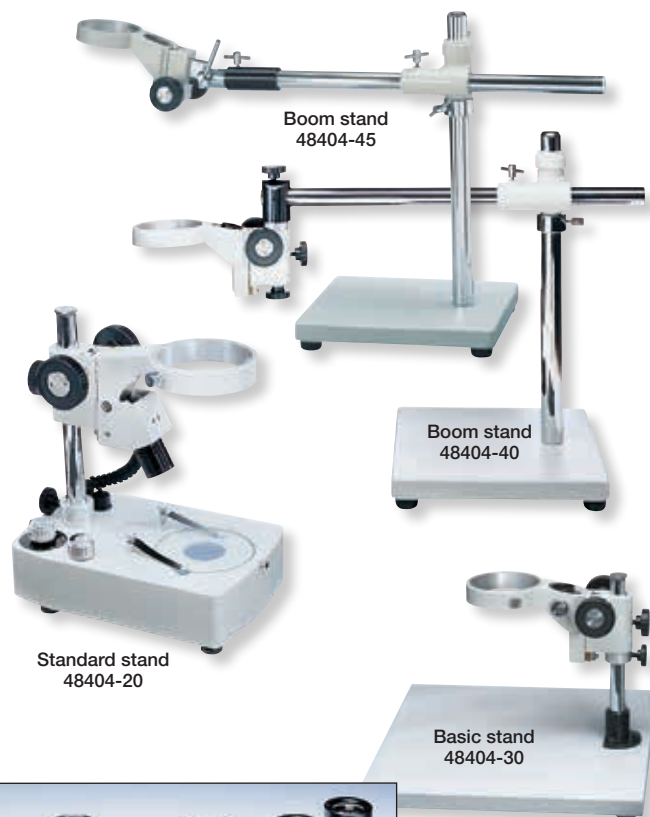
Illuminators	Power (VAC, Hz)	Catalog number	Price
Basic microscope stands			
None	—	GY-48404-00	
		GY-48404-30	
Standard microscope stands			
6 V, 10 W halogen bulb	115, 60	GY-48404-20	
	220, 50	GY-48404-25	
Boom microscope stands and holders			
None	—	GY-48404-40	
		GY-48404-45	

[GY-48404-55](#) Stand extension, 4" (10.2 cm). For standard stands

3. Microscope Eyepieces

These paired widefield eyepieces provide bright, sharp images. Reticle mount included. Eyepiece dia is 25 mm ID x 34 mm OD.

Total magnification	Field of view	Catalog number	Price/pr
10x	23 mm	GY-48402-58	
15x	15.4 mm	GY-48402-60	
20x	11.5 mm	GY-48402-62	



Cole-Parmer® Stereozoom Digital Camera Microscope with Large Stage

Count and measure objects easily

- Add audio comments to saved images

A simple USB connection with your PC or Mac lets you put this plug-and-play stereozoom microscope to work. The built-in digital camera features powerful analysis and manipulation software that counts and measures objects. Measure length in metric or English scales, ellipses, rectangles, and irregular shapes. Compute areas of an entire image or portions of it. Combine images, each with a different focus, into one clear image. Enhance saved images with audio narration recordings using MIG format. Software requires a minimum of Windows® XP or Mac OSX, 128-MB RAM, and a 16 MB display card (not included).

Larger working area is ideal for large objects and gives you room to work when dissecting. Zoom continuously through a range of 1x to 4x with top and/or bottom illumination—rheostat light control ensures clean image views, and the auto white balance function corrects the color. These stereozoom microscopes have widefield 10x eyepieces with dual diopter and interpupillary adjustability from 54 to 76 mm.

What's included: frosted glass plate, a reversible black/white plastic stage plate, a frosted blue filter, a measurement calibration slide, stage clips, and dust cover.

Features top and/or bottom illumination with rheostat control for precise lighting



Cole-Parmer®



Specifications

Illuminators: 20 W halogen with rheostat

Functions: count, capture, measure, record, or above, USB 2.0, amalgamate, internet meetings

Stage plate diameter: 80 mm

Output: digital

Data formats: BMP, JPG, MIG

Operating requirements: 1 GHz or above processor, USB 2.0, 256 MB RAM, 32 MB video card (48923-40 model only)

Data transfer

Models 48925-30: 7.5 MB/sec
Model 48925-40: 480 MB/sec

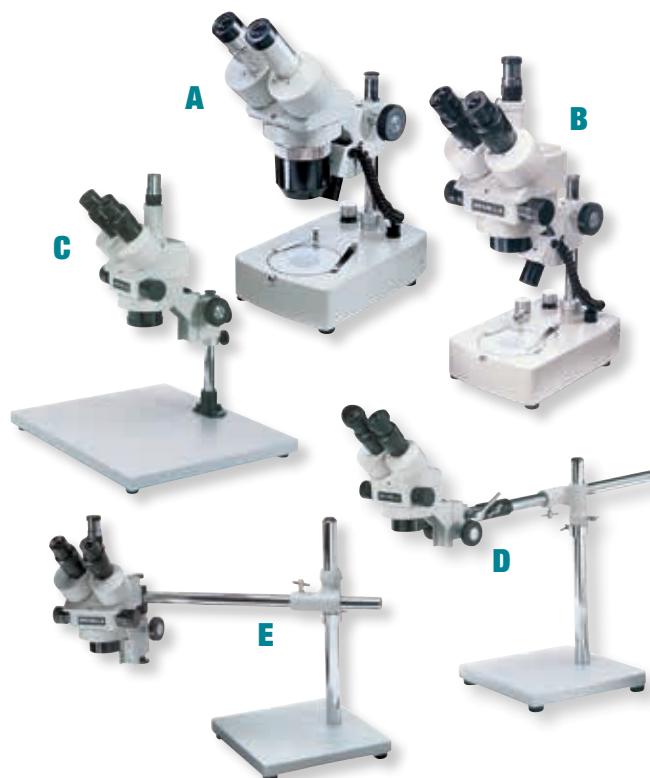
Total magnification	Imaging sensor	Pixels	Resolution	Cable(s)	Power	Catalog number	Price
10x to 40x	1/8" CCD	640 x 480 with PCI card (not included)	320 x 240, 480 TV lines	USB, RCA-Video, S-Video	115 VAC, 60 Hz	GY-48925-30	
10x to 40x	1/2" CMOS	1600 x 1280	1600 x 1280 pixels	USB 2.0	111 to 220 VAC, 60 Hz	GY-48925-40	

Preassembled Stereo and Stereozoom Microscope Systems

Convenient, easy-to-order quality microscope systems

- Preassembled microscope systems include a microscope body, stand, and eyepieces
- All eyepieces have diameters of 34 mm OD x 25 mm ID

Key	Total magnification	What's included			Catalog number	Price
		Body	Stand	Eyepieces		
A	10x/30x	Dual power body 48403-30	Standard stand 48404-20 with top and bottom illumination	10x eyepieces 48402-58	GY-48403-00	
B	7x to 45x continuous	Stereozoom body with photo tube 48402-25	Standard stand 48404-20 with top and bottom illumination	10x eyepieces 48402-58	GY-48402-00	
C	7x to 45x continuous	Stereozoom body with photo tube 48402-25	Basic stand 48404-30	10x eyepieces 48402-58	GY-48402-04	
D	7x to 45x continuous	Stereozoom body 48402-20	Boom stand and holder 48404-45	10x eyepieces 48402-58	GY-48402-06	
E	7x to 45x continuous	Stereozoom body with photo tube 48402-25	Boom stand and holder 48404-40	10x eyepieces 48402-58	GY-48402-02	



Wait!

There's More at
[ColeParmer.com](#)

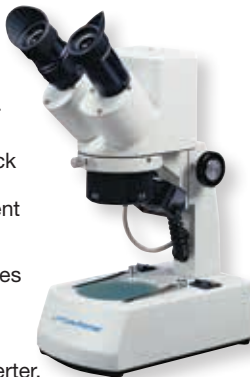
Browse **100,000+** products plus find **Technical Resources** to help you choose

Cole-Parmer® Stereo and Stereozoom Camera Microscopes**“Plug-and-play” technology is easy to use****Stereo Camera Microscope**

- Objective turret clicks from widefield 10x to 30x
- Software captures and processes images on your computer

A built-in camera simply expands the functionality of this superb instrument—a stereo microscope that also operates independently of camera applications. Widefield 10x/20 mm eyepieces with rubber eyeshields are 45° inclined with diopter adjustment on one eyepiece. Heavy-duty rack and pinion focusing features a slip clutch to protect focus mechanism. Tension adjustment eliminates focus drift.

What's included: two 80-mm dia stage plates (frosted glass and reversible black/white plastic), lock-in stage clips, dustcover, software CD, USB (digital) cable, 2.5 A time delay fuse, and a 120/240 VAC power converter.

**Stereozoom Camera Microscopes**

- Zooms from widefield 10x to 40x magnification
- Hooks up to a computer and a video monitor

Clear communication has never been easier! Download images to a computer and a video monitor or projector simultaneously—everything needed to connect is included. Easy-to-use software lets you capture, label, measure, store, and e-mail images. Stereozoom microscope features paired WF 10x eyepieces, dual diopter adjustment, and interpupillary adjustment from 55 to 75 mm. Large dual focusing knobs with slip clutch protect focus mechanism. Tension adjustment eliminates drift.

What's included: two 80-mm dia stage plates (frosted glass and reversible black/white plastic); frosted blue filter; lock-in stage clips; dustcover; software CD; output cables (see table below), and a 120/240 VAC power converter.



Total magnification	Stage dimensions (W x D)	Illuminators		Resolution	Cables (supplied)	Power (VAC, Hz)	Catalog number	Price
		Top	Bottom					
Stereo camera microscope								
10x, 30x	115 mm x 197 mm	10 W halogen	10 W tungsten	3.0 megapixel	USB 2.0	100/240, 50/60	GY-48923-49	
Stereozoom camera microscopes								
10x to 40x zoom	165 mm x 220 mm	15 W halogen	10 W halogen	550 TV lines (analog), 720 x 480 (digital)	NTSC, USB, RCA	100/240, 50/60	GY-48923-46	
10x to 40x zoom				3.0 megapixel	USB 2.0		GY-48923-47	

Cole-Parmer® Compound Microscopes**Multiple head styles for versatile viewing****A. Economical Monocular Microscope**

- Excellent optical clarity and image brightness at an affordable price

This microscope features a rotating 10x eyepiece with revolving pointer and DIN achromatic 4x, 10x, and 40x retractable objective lenses. The head rotates 360°. The built-in LED illuminator has a 5-watt bulb that delivers brighter light than a standard tungsten bulb. Cool operating temperature prolongs specimen life when viewing live material.

What's included: a dust cover, 110 mm x 120 mm graduated mechanical stage, and a 6-ft (1.8-m) cord with three-prong plug.

What's included: an Abbe N.A. 1.25 condenser, rack and pinion control, iris diaphragm, filter holder, and blue filter. The 115 VAC models include a 6-ft (1.8-m) cord with three-prong plug.

B-E. Professional Microscopes

- Objectives provide superb optical clarity and resolution

Each features widefield 10x eyepieces with oil immersion DIN achromatic objectives and coarse and fine focus controls. The inclined head rotates 360°. The 140 x 135 mm stage has a built-in, low position graduated mechanical specimen holder and coaxial controls.

Trinocular model “E” (not shown) features a vertical tube for mounting a 35-mm camera or video camera (adapter required—order at right) and includes a third 10x eyepiece.



Dual-head microscope lets two people view simultaneously

Key	Total magnification	Head	Eyepiece diameter	Illuminator(s)	Power (VAC, Hz)	Catalog number	Price
A	40x, 100x, 400x	Monocular	23.3 mm ID x 28.0 mm OD	LED	115, 60	GY-48923-55	
B	40x, 100x, 400x, 1000x	Monocular	23.3 mm ID x 28.0 mm OD	12 V, 20 watt halogen	115, 60 220, 50	GY-48923-00 GY-48923-05	
C	40x, 100x, 400x, 1000x	Monocular, dual head	23.3 mm ID x 28.0 mm OD	12 V, 20 watt halogen	115, 60 220, 50	GY-48923-10 GY-48923-15	
D	40x, 100x, 400x, 1000x	Binocular	23.3 mm ID x 28.0 mm OD	12 V, 20 watt halogen	115, 60 220, 50	GY-48923-20 GY-48923-25	
E	40x, 100x, 400x, 1000x	Trinocular	23.3 mm ID x 28.0 mm OD	12 V, 20 watt halogen	115, 60 220, 50	GY-48923-30 GY-48923-35	

[GY-48922-60](#) Carrying case for 48923-55

[GY-48922-62](#) Darkfield attachment for “B through E”

[GY-48923-31](#) Camera adapter, 35 mm; includes 2.5x photolens

[GY-48923-32](#) Camera adapter, video; includes 0.5x lens

Compound Microscopes with LCD Tablet Display and Camera

Include everything you need to view and capture images

NEW

- Edit images directly on the tablet touchscreen
- View images comfortably on large, 7" display
- Share images with others using built-in Wi-Fi

These microscopes are an all-in-one image capture solution—built-in 7" (17.8 cm) LCD display allows you to view your specimen while the internal camera captures the image. Edit, measure, and annotate saved images directly on the touchscreen or on a computer with the included software. Display features an Android™ operating system and a micro-SD card slot for additional memory (SD card not included). Wi-Fi signal connects to a computer for image download and sharing.

Siedentopf binocular head allows for easy adjustability and the 20-mm eyepieces provide an increased field of view. Choose from semi-plan, plan, and phase contrast models; semi-plan and plan versions include an Abbe condenser; the phase-contrast version has a multi-phase, rack and pinion condenser.

What's included: software, calibration slide, and dust cover.



Specifications

Display resolution: 1280 x 800	Imaging sensor: 1/2.5" CMOS, 5.0 megapixels	Cables: USB
Stage dimensions (W x D): 142 mm x 140 mm	Output: USB, HDMI, SD car	

Total magnification	Head	Eyepiece	Illumination	Power	Catalog number	Price
40x, 100x, 400x, 1000x (semi-plan)	Binocular	Widfield 10x/20 mm	3 W LED, variable	110/220 VAC	GY-48925-06	
40x, 100x, 400x, 1000x (plan)					GY-48925-07	
40x, 100x, 400x, 1000x (phase contrast)					GY-48925-08	

Compound Microscopes

Receive high-image quality, contrast, and flatness of field

- Koehler illumination provides an even image without reflection or glare
- Smooth-operating, ball-bearing quintuple nosepiece provides effortless objective changes

Models with standard semi-plan objectives feature a fully rotatable head and halogen illumination with an achromatic light condenser to correct for chromatic aberrations. Models with infinity-corrected semi-plan objectives feature Siedentopf viewing heads, low-position ergonomic focus control, choice of LED or halogen illumination with an Abbe condenser, ceramic-coated stage, and universal power supply. Models 48400-06 and -07 include phase-contrast objectives.

What's included: 6-ft (1.8-m) power cord. Models with standard semi-plan objectives also include a blue filter; models with infinity-corrected semi-plan objectives also include a green filter, dust cover, and immersion oil.



Total magnification	Head	Observation modes	Illuminator	Power (VAC, Hz)	Catalog number	Price
Microscopes with standard semi-plan objectives						
40x/100x/400x/1000x	Binocular	Brightfield	30 W halogen	115, 60	GY-48401-20	
				220, 50	GY-48401-25	
40x/100x/400x/1000x	Trinocular	Brightfield	30 W halogen	115, 60	GY-48401-30	
				220, 50	GY-48401-35	
Microscopes with infinity-corrected semi-plan objectives						
40x/100x/400x/1000x	Binocular	Brightfield	LED	100 to 240, 50/60	GY-48400-01	
			30 W halogen		GY-48400-02	
40x/100x/400x/1000x	Trinocular	Brightfield	LED	100 to 240, 50/60	GY-48400-03	
			30 W halogen		GY-48400-04	
40x brightfield, 100x/400x phase contrast	Binocular	Brightfield and phase contrast	30 W halogen	100 to 240, 50/60	GY-48400-06	
	Trinocular				GY-48400-07	

[GY-48401-70](#) Eyepiece reticle with cross hair

[GY-48401-71](#) Eyepiece reticle with 10-mm scale

[GY-48401-51](#) Replacement bulb, 30 W halogen

[GY-48400-63](#) C-mount adapter for 1/3" chip camera

Microscopes

Cole-Parmer® Compound Microscopes with Built-In Digital Cameras

Complete system is ready to use

- No need to buy a separate microscope, camera, cables, and software
- Ready to capture, label, measure, store, or e-mail digital images of your specimens
- Record audio comments along with your images

A. Economical Monocular

Microscope features a wide field 10x eyepiece with pointer and a four-hole objective turret that is ball-bearing mounted for smooth, precise changes in magnification. The reverse position design and 45° angled eyepiece provides comfortable viewing with the ability for fast and easy slide changes.

Microscope features a large stage with a low-profile mechanical specimen holder and a low-position coaxial X-Y controls. Microscope comes with a 100x oil immersion objective, an Abbe 1.25 N.A. condenser, spiral focusing mount, with iris diaphragm, swing-out filter holder, and blue filter. The focusing mechanism features a safety rack-stop to prevent damage to specimen slides and lenses.



B. Professional Binocular

Microscope features wide field 10x (18-mm) eyepieces with interpupillary adjustment and rubber eyepiece cups. A pointer comes standard in one eyepiece. A three-position sliding rod directs light 100% to binocular eyepieces, or 100% to camera, or 70% to camera and 30% to eyepieces. Microscope has a 100x oil-immersion objective lens, 1.25 N.A. Abbe condenser with rack-and-pinion focusing; iris diaphragm; and swing-out filter with blue, green, and yellow filters.



Cole-Parmer®



Specifications

Objectives: parfocal, parcentered, achromatic
Eyepiece: Widefield 10x, 18 mm

Data formats: BMP, JPG, MIG (for recording)
Data transfer: 7.5 MB/sec

Operating requirements: 1 GHz or above processor, USB 2.0, 256 MB RAM, 32 MB video card

Key	Total magnification	Head	Stage dimensions (W x D)	Illumination	Camera resolution	Cables (supplied)	Power	Catalog number	Price
A	40x/100x/400x/1000x	Monocular	135 x 135 mm	20 watt halogen with rheostat intensity control	1.3 megapixel	USB 2.0	100/240 VAC, 50/60 Hz	GY-48923-45	
B	40x/100x/400x/1000x	Binocular	140 x 135 mm		2.0 megapixel	USB 2.0		GY-48923-41	

Phase Contrast Microscopes

View transparent specimens without stains

View transparent specimens such as living cells, tissue slices, and microorganisms, without having to use stains. All models have an extended base for stability, ergonomic hand rests for the coarse/fine focusing controls, and an Abbe condenser with rack and pinion movements for illumination control. Viewing heads have interpupillary adjustment to ease eyestrain and diopter adjustment on both eyepieces.

Basic models feature Semi-Plan phase contrast objectives and 45° inclined eyepieces.

Advanced models feature infinity-corrected Plan-phase objectives for clear images with excellent contrast, siedentopf head for full adjustability, reverse-angle turret for easy access to the stage, and large stage with dual specimen holder.

What's included: blue filter and 6 ft (1.8 m) power cord.



Total magnification	Head	Eyepiece	Stage dimensions (W x D)	Illumination	Power	Catalog number	Price
Basic phase-contrast microscopes							
100x/400x semi-plan phase; 40x/1000x semi-plan brightfield	Binocular	Widefield 10x/18 mm	124 x 135 mm	20 W halogen, adjustable	100-240 VAC, 50/60 Hz	GY-49402-11	
	Trinocular					GY-49402-12	
Advanced phase-contrast microscopes							
100x/200x/400x/1000x plan-phase	Binocular	Widefield 10x/20 mm	160 x 200 mm	30 W halogen, adjustable	100-240 VAC, 50/60 Hz	GY-49402-13	
	Trinocular					GY-49402-14	

Epi-Fluorescent Microscopes

Easily view and identify fluorescent specimens

- Ideal for use in cell biology and laboratory research

Semi Apo Plan objectives provide bright, high-contrast images, with UV transmission and color correction. Modular six-position epi-fluorescent illuminator features six blank positions for filter cubes; basic blue, green, and UV-excitation filter sets mounted in filter cubes are included. Lamp house uses a 100 W mercury arc lamp.

Microscope features include siedentopf head for adjustability, diopter adjustment on one eyepiece, ceramic-coated stage, Abbe condenser with adjustable field iris, bottom halogen illumination for transmitted light use, and ergonomically placed focus controls.

What's included: mercury lamp power supply; blue, green, and UV-excitation filter sets; and a dust cover.



Specifications

Stage dimensions (W x D): 128 x 191 mm
Interpupillary adjustment: 53 to 75 mm



Total magnification	Head	Eyepiece	Illumination	Power	Catalog number	Price
100x, 200x, 400x, 1000x, semi apo plan	Binocular Trinocular	Widefield 10x, 30 mm	Incident 100 W mercury lamp; transmitted Koehler 30 W halogen	120/220 VAC, 50/60 Hz	GY-48924-60 GY-48924-65	

[GY-48924-66](#) Replacement 100 W mercury lamp

Metallurgical Microscopes

Clearly view a variety of materials

- View metals, plastics, ceramics, paint, glass, crystals, and semiconductor components
- Plan Epi optics provide clear images, excellent color rendering, and superior flatness of field
- Ideal for specimens that don't transmit light, such as metals
- Illuminator features field iris, aperture iris, and filter slots. Filter sets included

Microscopes with brightfield/incident illumination (48405-21, -27) feature Epi-Plan infinity corrected optics and scratch-resistant ceramic coated stage. Each model includes polarized light observation mode.

Microscopes with brightfield/incident/transmitted illumination (48405-41,-47) feature Epi-Plan infinity corrected optics. These models have a 94.5 mm diameter clear glass insert to allow transmitted lighting. Polarized light mode included.

Microscopes with brightfield/darkfield/incident illumination (48405-31,-37) include all the features of the previous models plus add the capability of darkfield observation mode with Plan Epi BF/DF objectives. Darkfield illumination helps in viewing more complex structures. Polarized light mode included.



Total magnification	Head	Eyepiece	Stage dimensions (W x D)	Illumination	Power	Catalog number	Price
Microscopes with brightfield/incident illumination							
50x/100x/200x/500x	Binocular	Paired DIN 10x	191 x 126 mm	30 W halogen full Koehler	100–240 VAC	GY-48405-21	
	Trinocular					GY-48405-27	
Microscopes with brightfield/incident/transmitted illumination							
50x/100x/200x/500x	Binocular	Paired DIN 10x	191 x 126 mm	30 W halogen full Koehler	100–240 VAC	GY-48405-41	
	Trinocular					GY-48405-47	
Microscopes with brightfield/darkfield/incident illumination							
50x/100x/200x/500x	Binocular	Paired DIN 10x	191 x 126 mm	40 W halogen full Koehler	100–240 VAC	GY-48405-31	
	Trinocular					GY-48405-37	

Polarizing Microscopes

Easily identify minerals and more

- Ideal for crystallography, petrography, and mineralogy applications
- Polarizing lens and stage rotate 360°

Plan objectives and color-corrected infinity optical system provide excellent image quality. Diopter adjustment on the widefield eyepieces allows adjustment for each eye. Available with binocular and trinocular head.

What's included: one blue filter and a power cord.



Total magnification	Head	Eyepiece	Illumination	Stage dimensions	Power	Catalog number	Price
40x/100x/200x/ 400x/600x	Binocular	Widefield 10x with diopter adjustment, 20-mm diameter	30-watt halogen with adjustable intensity	6¼" diameter (160 mm)	100 to 240 VAC, 50/60 Hz	GY-48406-10	
	Trinocular					GY-48406-11	

Inverted Microscopes

Maximize clarity and scale in your work

- Precentered system accommodates flasks and Petri dishes as high as 184 mm
- Change objectives easily without having to take the specimen off the stage
- Power saver turns the microscope off after 15 minutes

The working distance of these inverted microscopes is ample for larger culture vessels with or without the 0.30 N.A. condenser attached. The included CCIS phase Plan achromatic objectives coupled with the phase slider provides outstanding contrast images for even the most demanding applications.

Microscopes also feature a phase slider, coarse and fine focusing system with tension adjustment, and eyepieces inclined at 45°. Trinocular microscope includes a built-in slider to control the light path to either the binocular tubes or the trinocular output.

What's included: centering telescope; blue, green, and diffusion filters; vinyl dust cover, and power cord.



48412-10



48412-12

Specifications

Field of view: 20 mm

Stage dimensions: fixed, 200 x 239 mm

Illumination: 6 V/30 W quartz halogen

Interpupillary distance: adjustable 1⅞" to 3" (48 to 75 mm)

Focus: 42 mm/rev (coarse), 0.2 mm/rev (fine)

Total magnification	Head	Eyepiece	Illumination	Working distance	Power	Catalog number	Price
40x, 100x, 200x plan phase	Binocular	Widefield 10x, 20-mm	30-watt halogen with adjustable intensity	72 mm with condenser, 184 mm without condenser	100 to 240 VAC	GY-48412-10	
40x, 100x, 200x plan phase	Trinocular					GY-48412-12	

Compound Microscopes with Digital Camera

Get high-image quality and flatness of field

Powerful software tools make image analysis easy: view live images on your PC; accurately measure and quantify your specimen and export results in an Excel® format for analysis; count and evaluate cell quantity with the Auto Segmentation and Calculation tool; combine two images to bring out differences; add text, symbols, and even sound recordings to your image.



Specifications

Objectives: achromatic	Output: USB	Data transfer: 480 MB/sec
Imaging sensor: 3 megapixel	Cable: USB	Operating requirements: Windows®: XP or Vista, 1GHz, 256 MB RAM, USB 2.0 Mac: OSX, 1GHz, 256 RAM, USB 2.0

Total magnification	Head	Head	Stage dimensions (W x D)	Illumination	Power	Catalog number	Price
40x, 100x, 400x, 1000x (ef-plan)	Binocular	Widefield 10x/20 mm	140 x 135 mm	30 W halogen with intensity control	100 to 240 VAC, 50/60 Hz	GY-03911-40	
40x, 100x, 400x, 1000x (ef-plan)			160 x 140 mm	30 W halogen with intensity control and Koehler illumination	100 to 240 VAC, 50/60 Hz	GY-03911-45	

Digital Microscope Cameras with Software

Fast plug-and-play cameras relay images directly to your monitor

- Supplied software measures specimens and logs each image with automatic reference number, date, and time

Moticam 1 and 1SP feature great color balancing at an affordable price. Ideal for schools and small laboratories.

Moticam 2 and 3 offer great resolution for live imaging.

Moticam 5 and 10 feature the highest resolution of 10 megapixels, giving you the ability to convert images into 300 dpi files—ideal for documentation purposes!

Moticam 580 connects to your computer for image capture; if no computer is available, simply capture images on an SD card for later download. Multiple output options include USB, SD card, analog video, and HDMI for direct hookup to high-definition monitors.

Moticam X (Wi-Fi) sends streaming images to up to six Wi-Fi enabled devices such as tablets, smart phones, or computers. Download the free app to use iOS or Android; load the included software for use with OSX or Windows®-based computers.

What's included: focusable lens, calibration slide, two variable-diameter eyepiece adapters, macro tube, software, and mini USB cable. Moticam 580 (model 03906-17) also includes video cable, HDMI cable, C-ring adapter, and power supply.



ISO 9001:2008
CERTIFIED SUPPLIER

Specifications

Power: 5 VDC via USB	Operating system requirements: Windows® XP and higher, Mac OSX
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Description	Imaging sensor	Lens	Megapixels	Output	Catalog number	Price
Moticam 1	¼" CMOS	8 mm	0.480	USB	GY-03906-11	
Moticam 1SP	⅓" CMOS	12 mm	1.3		GY-03906-12	
Moticam 2	⅓" CMOS	12 mm	2.0		GY-03906-13	
Moticam 3	½" CMOS	16 mm	3.0		GY-03906-14	
Moticam 5	½.5" CMOS	12 mm	5.0		GY-03906-15	
Moticam 10	½.5" CMOS	12 mm	10.0		GY-03906-16	
Moticam 580	½.5" CMOS	12 mm	5.0	USB, HDMI, SD card, analog video	GY-03906-17	
Moticam X	⅓" CMOS	12 mm	2.0	WiFi	GY-03906-18	

Handheld Digital Microscopes

Conduct research at an affordable price

- Ideal for laboratory research, printing inspection, textile inspection, quality control, and more!
- Eight white LEDs provide two levels of light intensity
- Rubberized housing features an image capture button, lighting control switch, and a large rotating focus wheel
- Metal stand allows easy microscope positioning

What's included: metal stand, software, and a cable for USB connection.

Specifications

Imaging sensor: ½" CMOS	Illumination: Eight white LEDs
Image formats Still image: JPG, BMP Video: AVI	Operating system requirements: Windows® XP, SP2, Vista, and 7



Magnification	Resolution	Output	Power	Catalog number	Price
10x to 50x optical; 200x digital zoom	2 megapixels	USB	5 VDC, via USB	GY-48708-40	

Microscope Cameras with Tablet-Style Screen

Turn any trinocular microscope into a touch screen digital display

- View images comfortably on large LCD display or share with others via Wi-Fi
- Capture, measure, edit, and share images directly from the microscope

Built-in Wi-Fi, *Bluetooth*®, and HDMI lets you share images with Wi-Fi enabled Android™ tablets, smartphones, computers, and high-definition monitors. Display features Android operating system with SD card slot (SD card not included) allowing expansion of the memory capacity.

What's included: calibration slide, HDMI cable, software, and AC adapter.

Specifications

Tablet memory: 7": 8 GB; 10": 16 GB

Power: Rechargeable Li-ion battery

Description	Size	Imaging sensor	Pixels	Output	Catalog number	Price
Moticam S2	7" (17.8 cm)	1/2.5 CMOS	5.0 megapixels	Wi-Fi, HDMI, <i>Bluetooth</i> ®	GY-03906-21	
Moticam T2	10" (25.4 cm)				GY-03906-19	

Note: The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.



Microscope not included

Digital Microscope Camera

Quick and easy connection to PC or laptop

Capture high-resolution images (JPG, BMP, TIFF), movies, or time-lapsed sequences with this 1.3 megapixel microscope camera. Output your images to a PC or laptop through the USB port using the attached USB cable; power is supplied through the USB port. Model 03908-21 features a rubber, variable-eyepiece adapter that fits directly over the eyepiece of most compound microscopes. Model 03908-22 features a microscope connection with a built-in 10x lens that takes the place of a stereomicroscope eyepiece; simply unscrew the existing eyepiece and replace with the camera.



03908-21

Imaging sensor	Resolution (pixels)	Frame rate	Microscope connection	Output	Power	Catalog number	Price
1/3" CMOS	1280 x 1024	30 frames/sec	25 to 34 mm variable adapter	USB 2.0	Through USB	GY-03908-21	
			Eyepiece with built-in 10x lens			GY-03908-22	

Handheld Digital USB Microscopes

Put the world of microphotography at your fingertips!

- Active Pixel Technology produces sharp images and accurate color reproduction
- Six built-in lights with adjustable brightness ensure proper illumination
- Includes software for image/video capture and measurement

For versions with the 10x to 200x magnification range, magnification automatically adjusts based on the distance from the object. Units include a basic stand with adjustable height; order optional boom or gooseneck stand for greater flexibility.



48708-20 shown with included stand

Magnification	10x to 200x	500x	10x to 200x	10x to 200x	10x to 200x	10x to 200x
Catalog number	GY-48708-20	GY-48708-22	GY-48708-23	GY-48708-25	GY-48708-26	GY-48708-28
Lighting	Six LEDs	Six LEDs	UV bulbs (405 nm)	Six LEDs w/polarizer	Six near-infrared LEDs	Six LEDs
Imaging sensor	1/4" CMOS	1/4" CMOS	1/4" CMOS	1/4" CMOS	1/2" CMOS	1/4" CMOS
Pixels	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	5,000,000
Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024	2048 x 1536
Output	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0
Cables	USB	USB	USB	USB	USB	USB
Power	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB
Price						

[GY-48708-24](#) Optional boom stand

[GY-48708-29](#) Optional dual-view stand

[GY-48708-27](#) Optional gooseneck stand

Polystyrene Slide Holders

Protect your slides

Safeguard your 75 x 25 mm microscope slides with these compact, durable holders. Both are foam lined with numbered indexes on cover and bottom for easy identification. Cover and bottom are grooved for secure stacking.



Color	25-slide holders		100-slide holders	
	Catalog number	Price	Catalog number	Price
White	GY-48581-10		GY-48580-10	
Blue	GY-48581-12		GY-48580-12	

Slide Tray and Cover

Catalog and identify slides easily

- Store and protect up to one hundred 75 x 25 mm slides
- Tray measures 14¼" L x 1½" W x 3⅞" H (36.2 x 3.8 x 9.8 cm)



Description	Catalog number	Capacity	Price/ea
Slide tray	GY-48580-25	100	
Cover for slide tray	GY-48580-30	—	

Immersion Oil

Type A immersion oil has a viscosity of 150 cSt and a refractive index of 1.5239. Use with compound microscopes that have a 100x immersion objective.

Catalog number	Qty	Price
GY-48401-95	15 mL	



Superfrost® Plus and Colorfrost® Plus Adhesion Slides

Eliminate tissue loss

- No need for adhesives—tissue sections and cells electrostatically adhere to the glass
- Ideal for frozen sections

White Superfrost slides provide a chemically resistant marking surface. Colored marking surfaces of Colorfrost slides ensure easy labeling and identification. Slides measure 75 x 25 mm and are 1-mm thick. Available in one gross (144 slides).



Description	Catalog number	Price/gross
White Superfrost Plus	GY-48512-00	
Blue Colorfrost Plus	GY-48512-02	
Green Colorfrost Plus	GY-48512-04	
Yellow Colorfrost Plus	GY-48512-06	
Pink Colorfrost Plus	GY-48512-08	

Plastic Cover Slips

Save money

- Unbreakable and reusable
- Cover slips are square and made from flexible vinyl
- Packaged as a box of 1000, divided into 10 boxes of 100 covers each



Size	Thickness	Catalog number	Qty/pk	Price/pk
Square 22 x 22 mm	0.007" (0.157 mm)	GY-48510-20	1000	

Wait!

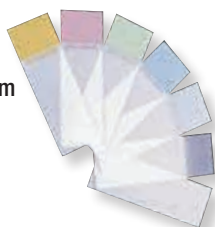
There's More at ColeParmer.com

Find all the **product specs** you need!

Cole-Parmer® Slides

Won't stick or scratch

- Easy to write on
- Measure 75 x 25 mm and 1-mm thick



Type	One gross (144 slides)		One case (10 gross)	
	Cat. no.	Price	Cat. no.	Price/cs
Plain	GY-48500-00		GY-48500-20	
Frosted	GY-48501-00		GY-48501-20	
Pink Colorfrost	GY-48503-02		GY-48503-22	

Clipped-Corner Slides

Easily keep sample from edge

- Easy to write on
- Slides are 75 x 25 mm and 1-mm thick



Description	Catalog number	Price/gross
Plain	GY-48520-01	
Frosted	GY-48520-03	
Superfrost	GY-48520-05	

Cole-Parmer® Cover Glass

Protect samples



- Choose from two thicknesses: no. 1 (0.13 to 0.17 mm) or no. 1.5 (0.16 to 0.19 mm)

Size	Thickness	Approx pieces /bx	Catalog number	Price /bx
Square (22 x 22 mm)	No. 1	156	GY-48510-00	
	No. 1.5	138	GY-48510-10	
Rectangular (22 x 40 mm)	No. 1	87	GY-48511-00	
	No. 1.5	76	GY-48511-10	
Rectangular (24 x 60 mm)	No. 1	54	GY-48511-30	