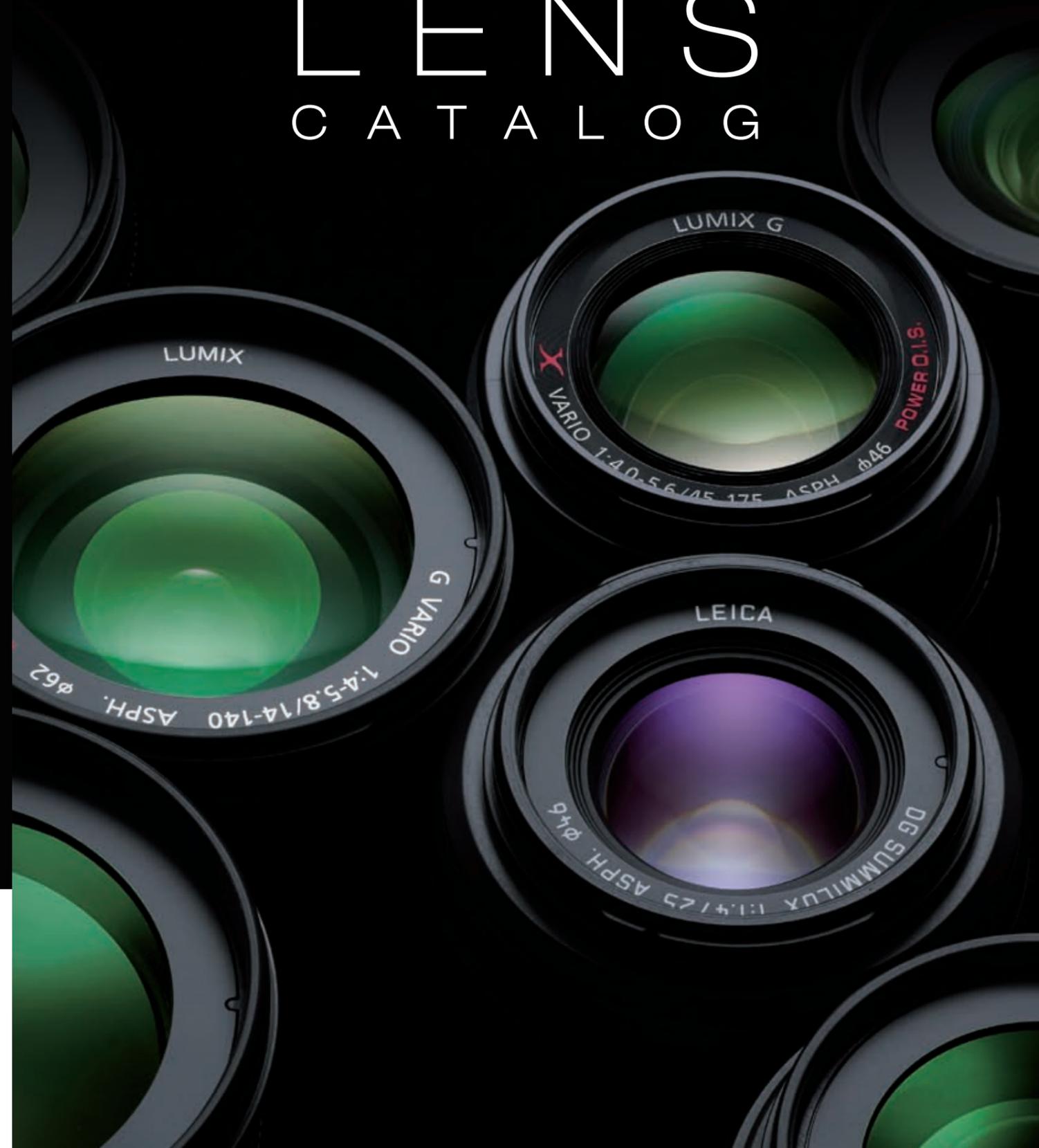


# LENS CATALOG

<http://panasonic.net/lumix>



**Panasonic**



LOCAL DEALER

## Infinite Expressive Power... from a Small, Handy Lens

"Single-lens reflex cameras are too big, heavy and hard to use."

Not anymore. Panasonic disproves this old notion with the new LUMIX G Micro System, a superb new digital camera based on the Micro Four Thirds System standard.

The camera body and all interchangeable lenses have been downsized, resulting in a camera that is revolutionary in size and weight.

Yet image quality is remarkably high, thanks to a fusion of advanced optical technologies and industry-leading digital technologies.

The LUMIX G Micro System renders superb images across a broad range of shooting situations, from wide-angle to telephoto.

The LUMIX G Micro System also lets you enjoy the exciting new world of HD video recording. Its high-performance features let you shoot your own videos with levels of clarity and beauty simply unimaginable in digital SLR cameras even a few years ago.

Carry the small, lightweight LUMIX G Micro System everywhere you go.

Change lenses as the inspiration moves you.

Capture the beauty of both special places and everyday moments in stunning images you'll enjoy forever.

With the LUMIX G Micro System, Panasonic introduces the ideal tool for exploring today's new digital imaging culture.

It's a small camera with small lenses that put infinite expressive power in your hands.



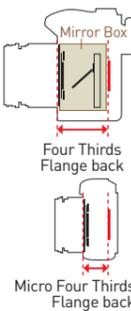
# Huge Performance from Ultra-Compact Lenses



## A Breakthrough in Size and Weight: Mirrorless Configuration



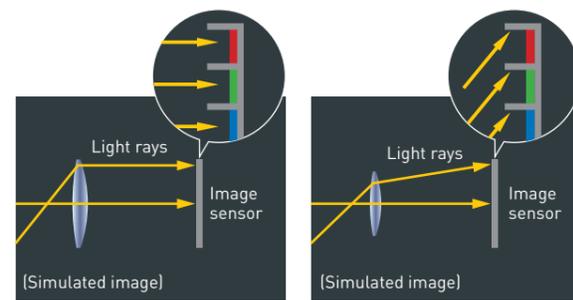
In developing the LUMIX G Micro System, Panasonic set out to create a digital SLR camera system with truly superior mobility. This meant that both the camera body and all lenses had to be extremely compact and lightweight. The LUMIX G Micro System's mirrorless configuration achieves exactly that, cutting the flange focal distance almost in half and reducing the body mount radius by 6 mm. With the LUMIX G Micro System, you get a camera that is light in your hands, easy to maneuver, and a joy to use. And you get breathtaking pictures thanks to an image sensor that's identical in size to larger Four Thirds System standard cameras.



LUMIX G Micro System

## A Digital Design that Delivers Beautiful Images from Corner to Corner

When a 35mm camera lens is used on a digital SLR camera, sharpness and light intensity can be lost and colors can bleed at the frame edges, where light enters at an angle. Wide-angle lenses are especially problematic since oblique light inclined at a large angle tends to enter the peripheral areas. Not with LUMIX G lenses. Created exclusively for digital use, LUMIX G lenses are designed so that light can enter only from straight ahead. You get superb rendering, with images that are bright, sharp and vivid all the way to the corners.

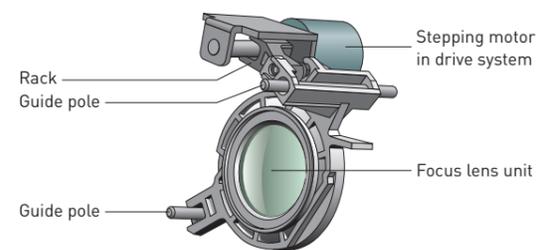


LUMIX G/LEICA DG lens design

35mm camera lens design

## High-Precision, High-Speed Contrast Auto Focus

The LUMIX G Micro System uses a contrast auto focus (AF) system, which maximizes the use of Full-time Live View. Panasonic expanded the number of mount signal contacts from 9 (the number used in the Four Thirds System standard) to 11, to improve data transmission efficiency between lens and body. This helps achieve a contrast AF with levels of precision and speed never before seen in a digital SLR camera.



\*Four Thirds™ and Micro Four Thirds™, and the Four Thirds and Micro Four Thirds logo marks are trademarks or registered trademarks of Olympus Imaging Corporation, in Japan, the United States, the European Union and other countries.

## HD Video Shooting – A New Way to Get Creative



The LUMIX G Micro System can be used to record high-quality videos. Panasonic's new "silent design" lenses have dramatically reduced the amount of noise recorded during focusing, zooming and aperture operation. From wide-angle to telephoto, they let you enjoy the expressive power of a system camera in shooting HD videos. With the LUMIX G Micro System, Panasonic opens the door to new kinds of image expression. Enjoy the fun of shooting your own HD videos with a mobile, easy-to-use system camera.



# From Wide-Angle to Telephoto, LUMIX G Lenses Have Got You Covered

Capturing vacation shots, composing a portrait, zooming in on the action...  
No matter where you are or what you're shooting, there's a LUMIX G lens that lets you get the perfect shot.  
Combining superb image rendering with advanced features,  
these lenses help you unleash the LUMIX G Micro System's extraordinary potential.



## WIDE ZOOM



LUMIX G VARIO  
7-14mm / F4.0 ASPH.



## STANDARD ZOOM



LUMIX G X VARIO PZ  
14-42mm / F3.5-5.6 ASPH. / POWER O.I.S.

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## TELEPHOTO ZOOM



LUMIX G X VARIO PZ  
45-175mm / F4.0-5.6 ASPH. / POWER O.I.S.

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## SINGLE FOCAL LENGTH



LUMIX G  
14mm / F2.5 ASPH.



LUMIX G  
20mm / F1.7 ASPH.



LEICA DG SUMMILUX  
25mm / F1.4 / ASPH.

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## MACRO



LEICA DG MACRO-ELMARIT  
45mm / F2.8 ASPH. / MEGA O.I.S.

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## FISHEYE



LUMIX G FISHEYE  
8mm / F3.5

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LUMIX G VARIO  
14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S.



LUMIX G VARIO  
14-45mm / F3.5-5.6 ASPH. / MEGA O.I.S.



LUMIX G VARIO HD  
14-140mm / F4.0-5.8 ASPH. / MEGA O.I.S.

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LUMIX G VARIO  
45-200mm / F4.0-5.6 / MEGA O.I.S.



LUMIX G VARIO  
100-300mm / F4.0-5.6 / MEGA O.I.S.

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## 3D



LUMIX G 12.5mm / F12

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LUMIX Four Thirds Lenses — Page 42

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\*LEICA is a registered trademark of Leica Microsystems IR GmbH. SUMMILUX and ELMARIT are registered trademarks of Leica Camera AG. The LEICA DG lenses are manufactured using measurement instruments and quality assurance systems that have been certified by Leica Camera AG based on the company's quality standards.



## Unprecedented Expression. The LUMIX G X Lens

How much beauty can an image hold? Let the new premium lens brand "X" show you.

This new lens series takes a major leap in photographic potential,  
and strikes a bold challenge to the limits of image rendering.

It delivers sharp, corner-to-corner contrast and features a Nano Surface Coating  
to bring ghosts and flaring to an absolute minimum.

It also produces crisp textures and incredible transparency.

The X Lens aims to capture the mood, right down to the surrounding breezes,  
that exist at the instant that the shutter is snapped,  
to produce images that reflect the hopes and joys of the person shooting.

Indeed, the photos you're looking for are right here.

Waiting for you in the new LUMIX G X Lens. The ultimate lens series,  
made possible by Panasonic optical technologies.

Breaking through the limits to expressive power.

# 14-42mm F3.5-5.6 (35mm camera equivalent: 28-84mm)



Ideal for a wide range of shooting situations, from landscapes all the way to daily snapshots and portraits. Retractable optics in this ultra-compact lens increase mobility while covering a focal distance of about 3x to take you from wide-angle to mid-telephoto. Precisely what you need to capture stunning images while traveling.



1/500 sec, F8.0

This was just a typical travel scene, but the pure white feathers of these pigeons reflected the light so brightly it dazzled my eyes. I grabbed the camera from my bag and immediately started shooting a video. The silent power zoom didn't bother the birds at all, so I was able to catch even the gentle fluttering of their wings. I'll be sure to bring this lens with me again on my next trip.



LUMIX G X VARIO PZ 14-42mm / F3.5-5.6 ASPH./ POWER O.I.S. (H-PS14042)

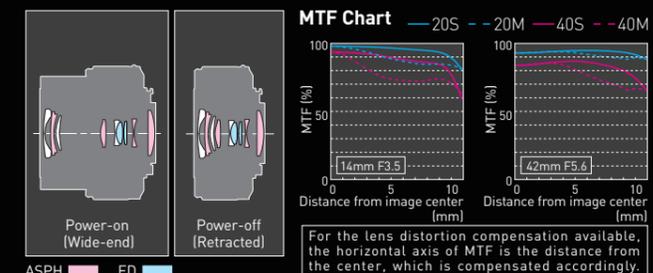


## The world's first\* digital interchangeable power zoom lens with retractable optics for superb mobility

When retracted, this ultra-compact lens is approx. 26.8 mm. Two extra-low dispersion (ED) lenses and four aspherical lenses correct aberrations, and a Nano Surface Coating minimizes ghosts and flaring. Images are crisp and clear with rich textures from corner to corner. And the silent-design, Light Speed AF with super-fast 0.09-second\*\* auto focusing, HD-compatible lens and electric-powered zoom dramatically improve the comfort level for shooting videos.

\*For a digital interchangeable lens as of August 26, 2011.  
\*\*The time for focusing on the subject is measured with the DMC-GX1 by moving the lens position from "infinity" to "2m" at the wide end. (Panasonic measurement method)

- Lens construction = 9 elements in 8 groups
- Closest focusing distance = 0.2 m / 0.66 ft in 14mm-20mm, 0.3 m / 0.98 ft in 21mm-42mm
- Maximum image magnification = Approx. 0.17x (35mm equivalent: 0.34x)
- Filter size = 37 mm
- Dimensions = 61.0 (dia) x Approx. 26.8 mm (When the lens is retracted) / 2.4 (dia) x 1.1 in.
- Weight = Approx. 95 g / 3.4 oz.
- Accessories = Case



# 45-175mm F4.0-5.6 (35mm camera equivalent: 90-350mm)



1/100 sec, F5.6

My dog suddenly stopped running at the dog run.  
To catch his expression, I zoomed in on his face.  
He appeared sharply against a softly focused background,  
dramatically showing the blue sky reflected in his eyes.  
With this easy-to-use zoom function, I've really begun to love telephoto shooting.  
It's not as hard as I thought.



This ultra-compact lens covers the range from mid-telephoto to telephoto, and features a smooth power zoom and Light Speed AF with super-fast 0.15-second\* auto focusing. The ultimate technology of the X lens ensures dynamic expression in photos and videos.

\*The time for focusing on the subject is measured with the DMC-GF3 to move the lens position to "2m" from "infinity" position at wide-end. [Panasonic measurement method]

LUMIX G X VARIO PZ 45-175mm / F4.0-5.6 ASPH. / POWER O.I.S.

(H-PS45175)

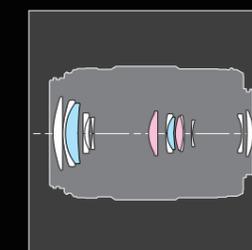


**The world's first\*\* digital interchangeable power zoom lens. Unchanged in length, this lens provides highly comfortable zooming**

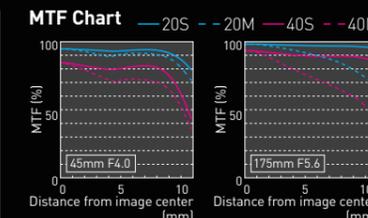
A Multi-Actuator Floating Inner Focus system gives this zoom lens its superb rendering performance while retaining its compact size. Two extra-low dispersion (ED) lenses and two aspherical lenses correct aberrations, and a Nano Surface Coating minimizes ghosts and flaring when shooting against a light source. The power zoom keeps the total lens length unchanged and POWER O.I.S. minimizes hand-shake. The silent-design, HD-compatible lens ensures comfortable shooting with whisper-quiet zooming.

\*\*For a digital interchangeable lens as of August 26, 2011.

•Lens construction = 14 elements in 10 groups •Closest focusing distance = 0.9 m / 3.0 ft. •Maximum image magnification = Approx. 0.2x (35mm equivalent: 0.4x) •Filter size = 46 mm •Dimensions = 61.6 (dia) x Approx. 90.0 mm / 2.4 (dia) x 3.5 in. •Weight = Approx. 210 g / 7.4 oz. •Accessories = Hood, case



ASPH ■ ED ■



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

# 7-14mm F4.0 (35mm camera equivalent: 14-28mm)



1/200 sec, F8.0

As I held the camera to my eye, I viewed a suspension bridge gleaming in the morning sun, with the background stretching to the horizon. Capturing stunning images like this – with a dynamic perspective and fine details that I can't even see with the naked eye – is what makes photography such a captivating art.



**Standard**  
(35mm camera equivalent: 40mm)



**14mm**  
(35mm camera equivalent: 28mm)



**7mm**  
(35mm camera equivalent: 14mm)



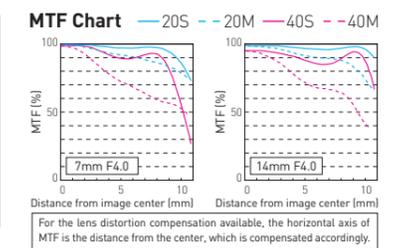
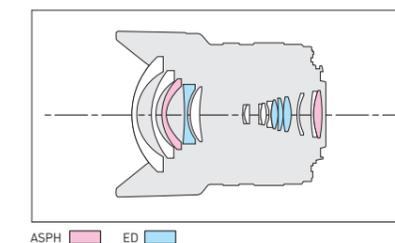
**LUMIX G VARIO 7-14mm / F4.0 ASPH.** (H-F007014) **HD** Video Support

## A Super Small, Lightweight Ultra-Wide-Angle Zoom Lens

This lens – the world's smallest of its kind\* – gives you an extraordinary perspective with its 114° diagonal angle of view. Small and light enough to take anywhere you go, this ultra-wide-angle lens lets you capture the vastness and majesty of sweeping landscapes with true-to-life ambience and perspective while traveling. In addition to two aspherical lenses for correcting a variety of aberrations, the lens is generously equipped with four extra-low dispersion (ED) lenses to eliminate chromatic aberration from magnification. It renders sharp, crisp image across the entire zoom range.

\*As of March 25, 2009, for wide-angle zoom lenses for digital SLR cameras

- Lens construction = 16 elements in 12 groups
- Closest focusing distance = 0.25 m / 0.8 ft.
- Maximum image magnification = Approx. 0.08x (35mm equivalent: 0.15x)
- Dimensions = 70 (dia.) x Approx. 83.1 mm / 2.76 (dia.) x 3.27 in.
- Weight = Approx. 300 g / 10.58 oz.
- Accessories = Hood (built-in), case



ASPH ED

For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

# 14-42mm F3.5-5.6 / 14-45mm F3.5-5.6

[35mm camera equivalent: 28-84mm]

[35mm camera equivalent: 28-90mm]



1/160 sec, F5.6

I intuitively pressed the shutter button when I noticed this girl's beautiful expression while talking. This lens captures super-fine details – even individual eyelashes – while giving the background a soft, delicate focus. With this 40mm-class lens [35mm camera equivalent: 80mm], I can easily snap off a shot anytime during a conversation – and catch stunning, natural-looking portraits.



With an angle of view and perspective close to those of the human eye, this lens captures natural-looking, true-to-life images. Use it for almost any kind of shot – from landscapes to snapshots, children, pets, still-life objects and more – and enjoy the kind of beautifully rendered, breathtaking images you simply can't get with a compact camera.

## Versatile, High-Quality Standard Zoom Lens From Wide Angle to Medium Telephoto

The standard zoom lens covers a lot of ground, extending from 28mm [35mm camera equivalent] to a zoom ratio of around 3.2x. With a total of 12 lens elements in 9 groups, including aspherical lenses, this high-quality lens delivers an excellent optical performance, correcting various aberrations and providing superb balance. This lens has all the versatility you need for both everyday shooting and artistic photography. As your shooting skills evolve, you'll find it easy to create interesting, expressive photos by varying the angle of view and focal distance, choosing different perspectives, and experimenting with varying degrees of soft focusing.

### LUMIX G VARIO 14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S.

- Lens construction = 12 elements in 9 groups
- Closest focusing distance = 0.3 m / 1 ft.
- Maximum image magnification = Approx. 0.16x [35mm equivalent: 0.32x]
- Filter size = 52 mm
- Dimensions = 60.6 [dia.] x Approx. 63.6 mm / 2.39 [dia.] x 2.50 in.
- Weight = Approx. 165 g / 5.82 oz.
- Accessories = Hood, case

### LUMIX G VARIO 14-45mm / F3.5-5.6 ASPH. / MEGA O.I.S.

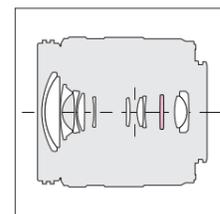
- Lens construction = 12 elements in 9 groups
- Closest focusing distance = 0.3 m / 1 ft.
- Maximum image magnification = Approx. 0.17x [35mm equivalent: 0.34x]
- Filter size = 52 mm
- Dimensions = 60 [dia.] x Approx. 60 mm / 2.36 [dia.] x 2.36 in.
- Weight = Approx. 195 g / 6.88 oz.
- Accessories = Hood, case



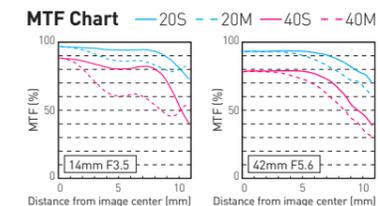
LUMIX G VARIO 14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S. (H-FS014042) **HD** Video Support



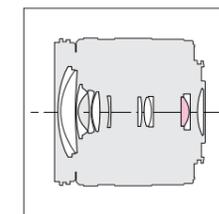
LUMIX G VARIO 14-45mm / F3.5-5.6 ASPH. / MEGA O.I.S. (H-FS014045) **HD** Video Support



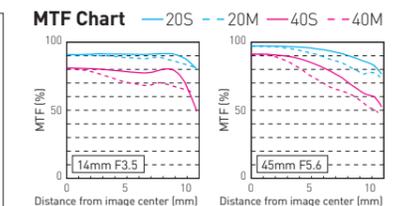
ASPH



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.



ASPH



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

# 14-140mm F4.0-5.8 (35mm camera equivalent: 28-280mm)



1/40 sec, F5.8

With this system camera in HD video recording mode, I'm the director. I can shoot softly focused silhouette shots of a man in a back alley playing a sax, and record every note in clear, high-quality sound. This lens, designed especially for shooting HD videos, works silently, so it won't interfere with the audio. My videos sound as great as they look.



**14mm**  
(35mm camera equivalent: 28mm)



**140mm**  
(35mm camera equivalent: 280mm)

A pasture behind a barn, lit up by the late afternoon sun. Use the optical 10x zoom to move in for a close-up of a chestnut mare nibbling clover. With this lens, you can zoom in and out while shooting either a photo or a video – so you can capture high-resolution shots of all kinds of scenes.

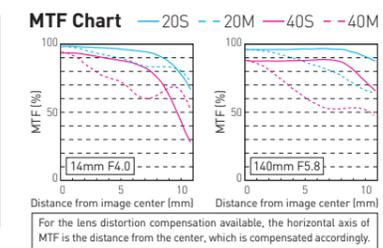
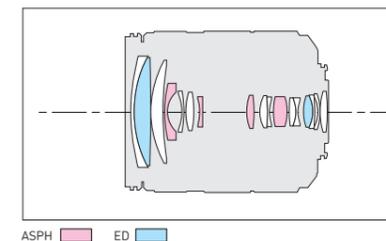


**LUMIX G VARIO HD 14-140mm / F4.0-5.8 ASPH. / MEGA O.I.S.** **HD**  
(H-VS014140) Video Support

### Perfect for HD Videos: A 10x Optical Zoom that Takes You from Wide-Angle to Telephoto

This high-powered zoom lens extends from 28mm to 280mm (35mm camera equivalent). Two ED lenses and 4 aspherical lenses correct a variety of aberrations, helping render high-contrast, high-resolution images without false colors or distortion, from corner to corner across the entire zoom range. Featuring a linear motor and Inner Focus system, the auto focus system is extremely fast, accurate and nearly silent – ideal for shooting HD videos. Using a microstep system for the aperture drive further suppresses noise, and makes HD videos easier and more comfortable to shoot.

- Lens construction = 17 elements in 13 groups
- Closest focusing distance = 0.5 m / 1.64 ft.
- Maximum image magnification = Approx. 0.2x (35mm equivalent: 0.4x)
- Filter size = 62 mm
- Dimensions = 70 (dia.) x Approx. 84 mm / 2.76 (dia.) x 3.31 in.
- Weight = Approx. 460 g / 16.2 oz.
- Accessories = Hood, case



# 45-200mm F4.0-5.6 (35mm camera equivalent: 90-400mm)



1/320 sec, F5.6

Only 100mm long, this compact lens fits right in the palm of my hand – yet packs the power of a 400mm lens (35mm camera equivalent) to let me capture dynamic, professional-looking telephoto shots. I get the mobility I need to follow my child as he kicks a ball around a soccer field, and the power to zoom in for dramatic close-ups of his expressions.



45mm (35mm camera equivalent: 90mm)



200mm (35mm camera equivalent: 400mm)

Use the 45mm setting (35mm camera equivalent: 90mm) to take impressive landscape shots. With the 200mm setting (35mm camera equivalent: 400mm), the background appears as if it were right behind your subject. The telephoto zoom lets you adjust the way you capture your images, depending on the subject and your intent.

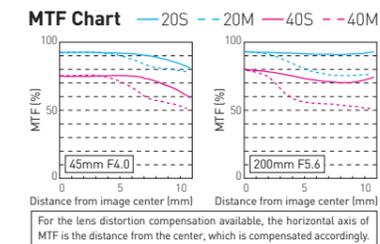
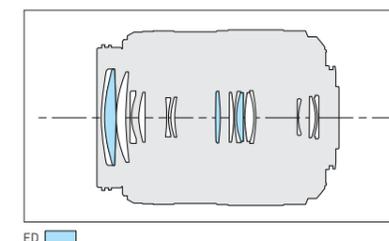


LUMIX G VARIO 45-200mm / F4.0-5.6 / MEGA O.I.S. (H-FS045200) **HD** Video Support

## An Easy-to-Use Zoom that Goes All the Way to 400mm

Capture natural-looking portraits in the medium telephoto range, or zoom all the way to 200mm (35mm camera equivalent: 400mm) to move in and grab dynamic action shots at sports events. This zoom lens covers a huge amount of ground. And with 16 elements in 13 groups, including 3 ED lenses, it corrects various aberrations with excellent balance to deliver images of stunning power and beauty. The unique Inner Focusing system allows high-speed contrast AF, and the 7-blade circular aperture renders images with a beautiful soft focus.

- Lens construction = 16 elements in 13 groups
- Closest focusing distance = 1.0 m / 3.3 ft.
- Maximum image magnification = Approx. 0.19x (35mm equivalent: 0.38x)
- Filter size = 52 mm
- Dimensions = 70 (dia.) x Approx. 100 mm / 2.76 (dia.) x 3.94 in.
- Weight = Approx. 380 g / 13.4 oz.
- Accessories = Hood, case



ED

# 100-300mm F4.0-5.6 (35mm camera equivalent: 200-600mm)



1/20 sec, F7.1

A brilliant flash of color suddenly flew into view. When I pointed the lens at it, it turned out to be a tiny bird, I don't know what kind, with wings that sparkled like emeralds. The lens clearly shows the vibrant colors of each feather and the fine variations in light and shade. It's amazing that this handheld ultra-telephoto zoom can produce details that are invisible to the naked eye.



1/2000 sec, F5.6

Conventional 600mm-class (35mm camera equivalent) lenses are big, heavy and tiresome to haul around. LUMIX G lenses are small, lightweight and fit perfectly in the palm of the hand. Now, holding the camera in the hand, you can take dynamic, professional-looking ultra-telephoto shots of a swimmer – and capture even individual drops of water flying through the air.

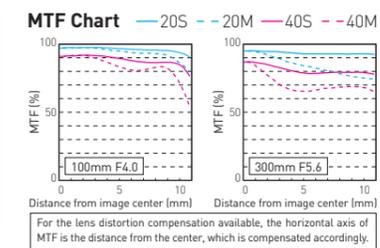
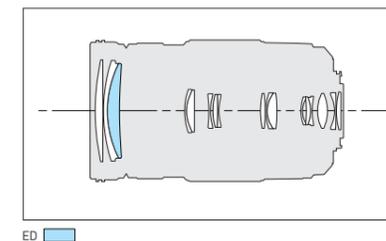


LUMIX G VARIO 100-300mm / F4.0-5.6 / MEGA O.I.S. **HD**  
(H-FS100300) Video Support

## An Ultra-Zoom Lens that Fights Hand-Shake

Drawing subjects in from a distance, this ultra-telephoto zoom lens is ideal for capturing intense action sports or animals you can't normally approach. An ED lens in the first lens group corrects the color bleeding that can occur when zooming, helping achieve consistently superb performance over the entire zoom range. The Inner Focus system teams up with a system that shifts a pair of lenses to enhance focusing, making possible high-speed contrast AF and excellent rendering at all zoom levels. This is in addition to MEGA O.I.S., an optical image stabilizing system that corrects for even slight hand-shake, making it easy to get clear, blur-free shots even at full zoom.

- Lens construction = 17 elements in 12 groups
- Closest focusing distance = 1.5 m / 4.92 ft.
- Maximum image magnification = Approx. 0.21x (35mm equivalent: 0.42x)
- Filter size = 67 mm
- Dimensions = 73.6 [dia.] x Approx. 126 mm / 2.90 [dia.] x 4.96 in.
- Weight = Approx. 520 g / 18.3 oz.
- Accessories = Hood, case



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

# 14mm F2.5 (35mm camera equivalent: 28mm)



1/13 sec, F8.0

Today, I'm visiting an old-time country stable. Thankfully this small lens sees everything, from the horse carriage in the corner to the thick wooden beams in the ceiling, all in a single frame. I'm able to capture the nostalgic air of a place time forgot with this slim, wide-angle 14mm pancake lens (35mm camera equivalent: 28mm).



1/8 sec, F2.5

With its fully open brightness, this lens is ideal for nightscapes. It lets in a large amount of light, so you can raise the shutter speed without increasing the ISO sensitivity. This wide-angle lens also suppresses hand-shake and noise, so all your shots are crisp, clear and beautiful.

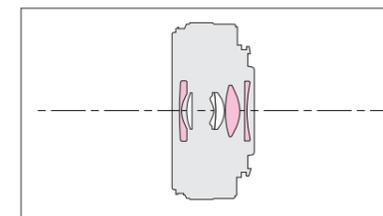


LUMIX G 14mm / F2.5 ASPH. **HD**  
(H-H014) Video Support

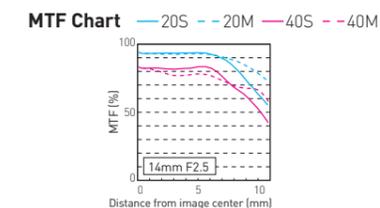
## Single-Focal-Length Lens for Wide-Angle Shooting

A wide angle of view and outstanding depth of field make this pancake type wide-angle lens a good choice for both snapshots and landscapes. Rendering high-contrast images across the entire frame and correcting distortion, this super-thin lens is especially ideal for capturing subjects that are primarily linear, such as buildings with a number of straight lines. Its simple lens construction - 6 elements in 5 groups, including 3 glass aspherical lenses - allows both high performance and an astonishingly compact size.

- Lens construction = 6 elements in 5 groups
- Closest focusing distance = 0.18 m / 0.59 ft.
- Maximum image magnification = Approx. 0.10x (35mm equivalent: 0.20x)
- Filter size = 46 mm
- Dimensions = 55.5 (dia.) x Approx. 20.5 mm / 2.19 (dia.) x 0.81 in.
- Weight = Approx. 55 g / 1.9 oz.
- Accessories = Case



ASPH



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

# 20mm F1.7 (35mm camera equivalent: 40mm)



1/250 sec, F1.7

As I casually snap shots of an unusual gate at a street corner, I use the F1.7's delicate soft focus to emphasize the texture of the rusty metal, and transform an everyday scene into a work of art. This lens has the power to give form to all of my artistic visions.



F1.7



F16

The smaller the F-number, the shallower the depth of field (the range in which things are in focus); the larger the F-number, the greater the depth of field. This lens, with its bright, fully open F1.7 aperture, lets you capture the desired parts of an image in sharp focus, while giving other parts a soft focus. This makes the subject really stand out, adding a rich expressiveness to the photo.

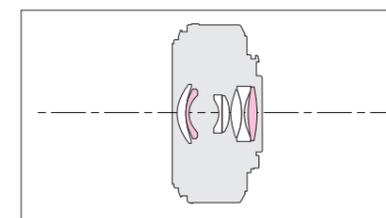


LUMIX G 20mm / F1.7 ASPH.  
(H-H020)

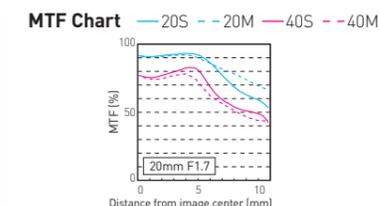
### Compact Lens with Large F1.7 Aperture – Perfect for Everyday Shooting

Featuring the brightness of an F1.7 aperture, this single-focal-length lens lets you capture beautiful, expressive images with a delicate soft focus and high contrast. Two aspherical lenses are perfectly configured to deliver enhanced performance in a compact system. With this thin, pancake lens mounted, the LUMIX G Micro System is easy to carry anywhere. You're always ready for whatever inspires the photographer inside you – everyday scenes, passing landscapes, indoor shots in dim lighting, casual snapshots, or artistic shots with soft focusing.

- Lens construction = 7 elements in 5 groups
- Closest focusing distance = 0.2 m / 0.66 ft.
- Maximum image magnification = Approx. 0.13x (35mm equivalent: 0.25x)
- Filter size = 46 mm
- Dimensions = 63 (dia.) x Approx. 25.5 mm / 2.48 (dia.) x 1.00 in.
- Weight = Approx. 100 g / 3.53 oz.
- Accessories = Case



ASPH



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

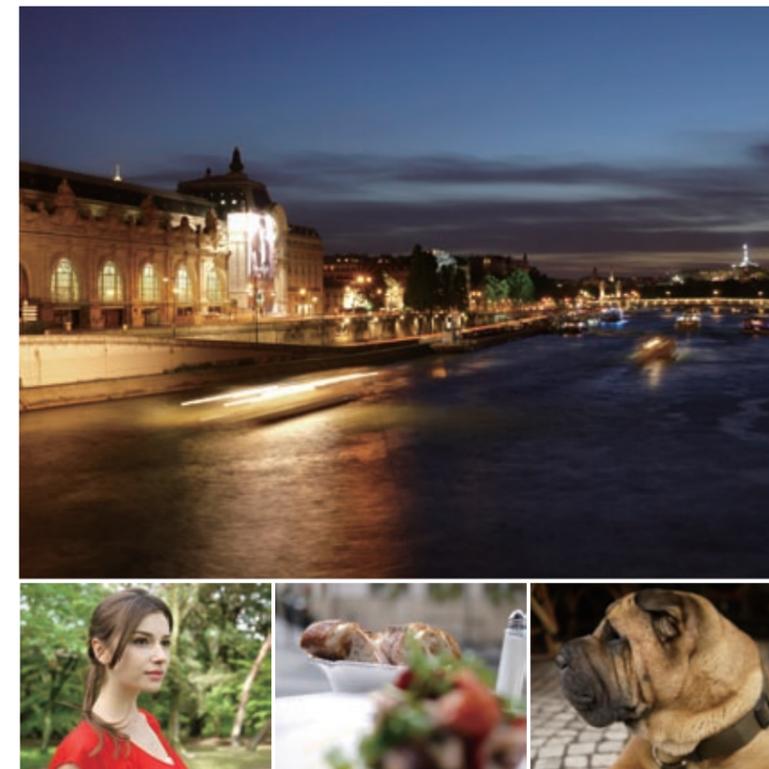
25mm F1.4 (35mm camera equivalent: 50mm)

LEICA DG LENS



1/4000 sec, F3.5

The small pieces of coral seemed to be dancing in the lapping waves. To capture their adorable appearance, I positioned the camera for a low-angle shot. The sun was strong, but the lens produced no ghosts or flaring. I could see the coral clearly against the softly focused, translucent background. This lens captures beautiful images even from ordinary nature scenes.



The bright F1.4 lens offers superb image rendering even in indoor or nighttime shooting. The exquisite soft-focusing effect of the Leica lens, which has mesmerized so many photographers around the world, turns ordinary scenes into beautiful, emotion-packed photos. This lens does a marvelous job at all times in all situations, both in everyday life and while traveling.



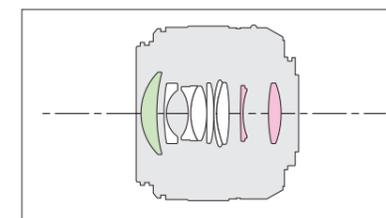
LEICA DG SUMMILUX 25mm / F1.4 / ASPH. (H-X025)



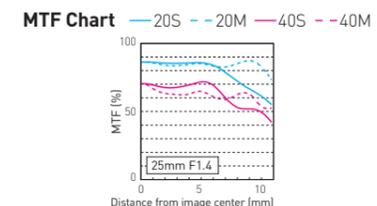
**The stunning soft focus of this F1.4, 25mm single-focal-length lens charms and surprises**

This lens produces the soft focus effect that is unique to Leica in the brightest of all LUMIX G lenses. Two aspherical lenses and an ultra high refractive (UHR) index lens boost rendering performance while keeping the body compact. Silent, high-speed contrast AF focuses instantly, and a Nano Surface Coating minimizes ghosts and flaring. It promises you a remarkable image rendering and breathtaking transparency.

- Lens construction = 9 elements in 7 groups
- Closest focusing distance = 0.3 m / 0.98 ft.
- Maximum image magnification = Approx. 0.11x (35mm equivalent: 0.22x)
- Filter size = 46 mm
- Dimensions = 63 (dia) x Approx. 54.5 mm / 2.48 (dia) x 2.14 in.
- Weight = Approx. 200 g / 7.05 oz.
- Accessories = Hood, case



ASPH UHR



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

• LEICA is a registered trademark of Leica Microsystems IR GmbH. SUMMILUX is a registered trademark of Leica Camera AG. The LEICA DG lenses are manufactured using measurement instruments and quality assurance systems that have been certified by Leica Camera AG based on the company's quality standards.

45mm F2.8 (35mm camera equivalent: 90mm)

LEICA  
DG LENS



1/200 sec, F2.8

As I stand captivated by this single flower glistening with morning dew, the macro lens turns it into a striking, dramatic image. Its superb rendering performance is seen here in the light transparency that has the look of a watercolor painting, the soft, delicate background focus, and the true-to-life droplets. Images like these reflect the breathtakingly beautiful imaging that distinguishes Leica.



This macro lens does much more than make small things bigger. Not limited to beautiful soft focusing, it lets you bring the entire frame – from corner to corner – into sharp focus. That gives you the freedom to create a wide variety of compositions, from portraits to telephoto shots to landscapes, making this lens a true all-round performer.

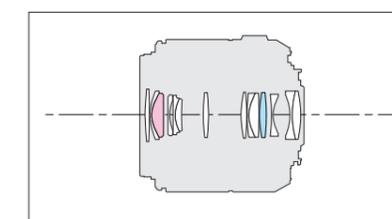


LEICA DG MACRO-ELMARIT 45mm / F2.8 ASPH. / MEGA O.I.S. (H-ES045)

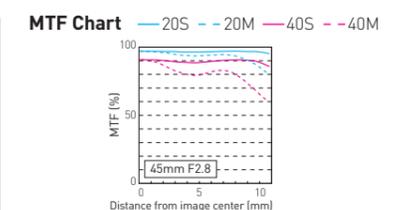
### A Superior Macro Lens Brings Tiny Worlds into View

Designed and manufactured to meet Leica's stringent performance standards, this high-quality macro lens minimizes distortion, ghosts, flaring and decreased peripheral resolution. With 14 elements in 10 groups, including one aspherical lens and one ED lens, it provides stable contrast and high resolution all the way from 1:1 macro (35mm camera equivalent: 2x) to infinity. By using a floating Inner Focus system that shifts three groups of lenses, the elaborate focusing that's so essential to a macro lens has become both faster and quieter. Also featured is MEGA O.I.S., which fights blurring from hand-shake to help you capture clear, sharp images with everything from macro and medium-telephoto portraits to wide landscapes and long telephoto shots.

- Lens construction = 14 elements in 10 groups
- Closest focusing distance = FULL: 0.15 m / 0.50 ft. LIMIT: 0.5 m / 1.64 ft.
- Maximum image magnification = Approx. 1.0x (35mm equivalent: 2.0x)
- Filter size = 46 mm
- Dimensions = 63 (dia.) x Approx. 62.5 mm / 2.48 (dia.) x 2.46 in.
- Weight = Approx. 225 g / 7.94 oz.
- Accessories = Hood, case



ASPH ED



For the lens distortion compensation available, the horizontal axis of MTF is the distance from the center, which is compensated accordingly.

• LEICA is a registered trademark of Leica Microsystems IR GmbH. ELMARIT is a registered trademark of Leica Camera AG. The LEICA DG lenses are manufactured using measurement instruments and quality assurance systems that have been certified by Leica Camera AG based on the company's quality standards.

# 8mm F3.5 (35mm camera equivalent: 16mm)



At 180°, the angle of view is far beyond what I can take in with normal eyesight. That's the appeal of a fisheye lens. This unique lens lets me capture surreal-looking images with a powerful perspective and deformation effect, yet portray even the lights of a building at night in clear detail.

3.2 sec, F10



With a fisheye lens, familiar everyday scenes become surreal, imaginative images. Even with the same subject, changing the lens angle creates a curving effect that gives the scene an entirely different look. Whether you're shooting photos or videos, the fisheye lens lets you create truly distinctive eye-catching images.

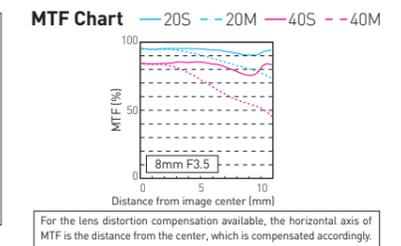
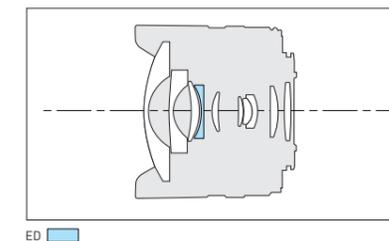


LUMIX G FISHEYE 8mm / F3.5 **HD**  
(H-F008) **Video Support**

## Fisheye Lens for Unique Images with Intriguing Deformation Effects

This fisheye lens with equisolid angle projection lets you create fascinating images with a 180° diagonal angle of view and intriguing deformation effects. Featuring 10 elements in 9 groups, including 1 ED lens, this lens system corrects chromatic aberration from magnification and other sources, to assure superb image rendering. The fisheye lens also features the Inner Focus system, as well as a virtually silent single-lens drive system that won't interfere with the sound you're recording when using the LUMIX G Micro System to shoot HD videos.

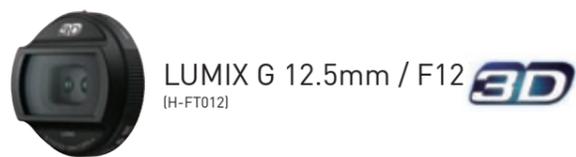
- Lens construction = 10 elements in 9 groups
- Closest focusing distance = 0.1 m / 0.33 ft.
- Maximum image magnification = Approx. 0.20x (35mm equivalent: 0.40x)
- Filter size = Front: Mounting not possible / Rear: Sheet filter holder 22 mm / 0.86 in x 22 mm / 0.86 in.
- Dimensions = 60.7 (dia.) x Approx. 51.7 mm / 2.39 (dia.) x 2.04 in.
- Weight = Approx. 165 g / 5.82 oz.
- Accessories = Case



12.5mm F12 (35mm camera equivalent: 65mm\*)



The 12.5mm F12 lens is Panasonic's original interchangeable lens\*\*. This compact, lightweight lens shoots 3D images. Simply mount it to your camera and shoot the same way you always do. It captures dynamic 3D still images without any complex operation. The lens is also thin, so you can take it with you anywhere you go.



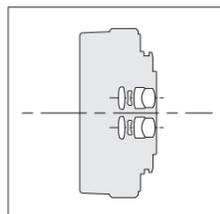
LUMIX G 12.5mm / F12 **3D**  
(H-FT012)

### The World's First\*\*\* Interchangeable 3D Lens. Once Again, the LUMIX G Micro System Dramatically Changes Digital SLR Shooting Styles.

Colorful flowers, stunning portraits and striking landscapes captured by the camera seem to be standing right in front of your eyes. They form an entirely new world of images with their highly dimensional effects and sense of depth. By changing lenses to match your intent and the shooting situation, you can add a new form of 3D expression to the joy of creating superb photos.\*\*\*\*

•Lens construction = 4 elements in 3 groups x2 •Closest focusing distance = 0.6 m / 1.97 ft. •Maximum image magnification = Approx. 0.02x [35mm equivalent: 0.1x\*] •Dimensions = 57.0 (dia.) x Approx. 20.5 mm / 2.24 (dia.) x 0.81 in. •Weight = Approx. 45 g / 1.59 oz. •Accessories = Case

\*When setting the aspect ratio at 16:9 with the DMC-GH2. \*\*3D-compatible models: DMC-G2\* / G3 / GF3 / GF2 / GH2 / GX1 [\*Firmware must be updated. For details, visit <http://panasonic.jp/support/global/cs/dsc/>.] \*\*\*For a digital interchangeable lens as of September 21, 2010. \*\*\*\*Available with some Panasonic cameras only. Compatible Olympus cameras not yet determined, as of November 2011. A 3D media player that supports the MP (Multi-Picture) format is required to view 3D images.



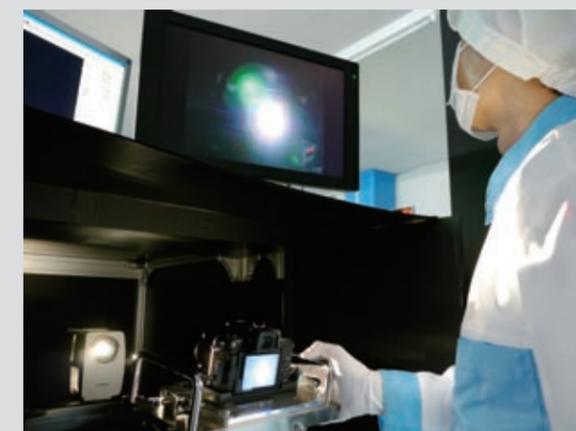
# Lens Technology

These cutting-edge technologies support the compact size, light weight, and high-quality images of the LUMIX G Micro System.



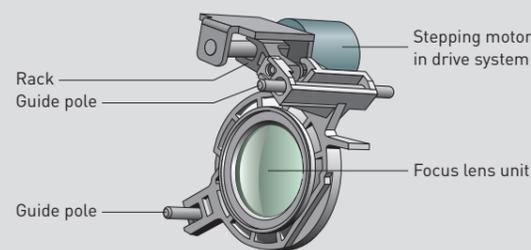
## Lenses Manufactured with Uncompromising Devotion to High Image Quality

The LUMIX G/LEICA DG lenses are manufactured by an integrated production system in the Panasonic Yamagata Plant in Japan. From lens processing to assembly, inspection, and individual packaging, all processes are conducted in Clean Rooms according to rigorous environmental standards. For example, to inspect aspherical lenses, we use an instrument called the UA3P Ultra-Accurate 3D Profilometer, which was originally developed by Panasonic and now plays an essential role in the development and manufacturing activities of many optical device manufacturers. Using this instrument, with its measurement accuracy of 1/10,000 mm, we conduct objective, numerical evaluations. These criteria are then used to determine the presence of flaring, the color of coatings, the operating feel of the focus ring, etc., in order to ensure high-quality production control. As a result, the quality of Panasonic lenses has gained high worldwide acclaim for accuracy and image quality.

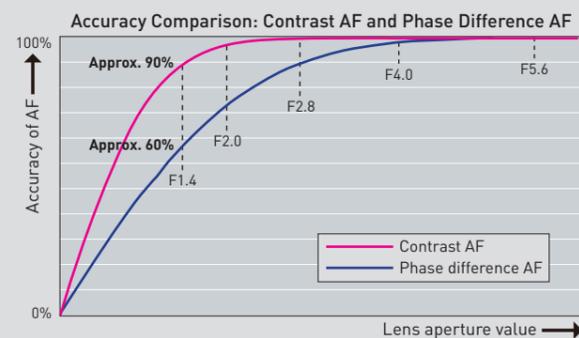


## An Original Lens Drive Motor for High-Precision, High-Speed Contrast AF

In conventional digital SLR cameras, contrast AF is more accurate than phase difference AF, but it has a slower focus speed. LUMIX G/LEICA DG lenses overcome this problem by incorporating a unique stepping motor in the drive system. A screw unit integrated with the motor shaft moves the focus lens directly, without relay gears or cams. Auto focusing is swift and accurate. Some lens models are equipped with a linear motor to further reduce drive noise –



ideal when recording videos with sound. The number of mount signal contacts has been increased from the 9 used in conventional Four Thirds System cameras to 11, so information transfer between lens and camera is faster. This has also helped achieve a contrast AF system that excels in both speed and accuracy.



## POWER O.I.S. / MEGA O.I.S. (Optical Image Stabilizer)

The smaller and lighter the camera body, the greater the hand-shake effect during shooting. LUMIX G/LEICA DG lenses feature MEGA O.I.S., an image stabilizing function that has been highly evaluated by compact camera users. An internal LSI processes the output of the system's gyro sensors approximately 4,000 times a second to provide accurate compensation for even tiny amounts of hand-shake. Unlike image stabilizing functions that are built into the camera body, this highly accurate function also lets you check the compensation effect directly through the Live View Finder or on the LCD. The images that you capture have the same shake-free beauty as what you see on the Live View Finder or the LCD. The compensation effect is also carefully matched to each lens. MEGA O.I.S. is especially effective for hand-held shooting with a zoom lens. What's more, some LUMIX G lenses come with POWER O.I.S. which offers a more advanced hand-shake compensation effect than MEGA O.I.S. It not only compensates tiny amounts of fine, fast hand-shake but also suppresses large, slow movement twice more effectively. [Panasonic measurement method]



## Power Zoom

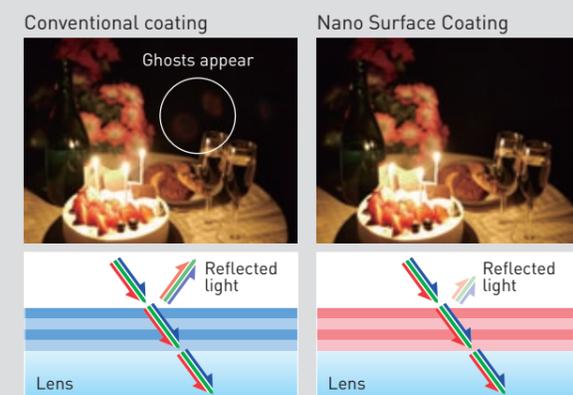
This is the world's first\* zoom mechanism that uses a motor, unlike the conventional system that requires manual turning of the zoom ring. It makes zooming as easy as pressing the zoom lever located on the side of the lens barrel. It dramatically improves the ease of zooming operation. The user can select the zooming speed\*\*, so images can be precisely composed at low zooming speeds. In addition, the step-zoom function\*\* lets you zoom smoothly to a desired zoom position. This lets you move the focus to a desired focal length with a one-push operation while checking the focal length on the LCD monitor. It eliminates the need to manually operate the zoom lens, thus significantly reducing the hand-shake that tends to occur when zooming while video shooting. You can now record blur-free motion pictures easily.

\*In digital cameras with interchangeable lenses, as of October 13, 2011  
 \*\*Some camera bodies require a firmware update. For further details, visit the following website. Applicable models: DMC-G3 / GF3 / GF2 / GH2 / GX1  
[http://panasonic.net/avc/lumix/popup/pressrelease/hd\\_lens.html](http://panasonic.net/avc/lumix/popup/pressrelease/hd_lens.html)



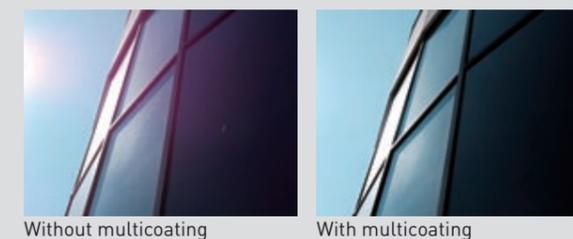
## Nano Surface Coating

The Nano Surface Coating was developed originally by Panasonic. By forming a thin film with an ultra-fine nano-level structure and a super-low refractive index on the lens surface, Panasonic has achieved a dramatic reduction in the amounts of light reflection over the entire visible light range (from 380 to 780 nm). This significantly decreases ghosts and flaring and renders pure and clear images. This advanced coating technology is highly acclaimed by the camera and lens industry.



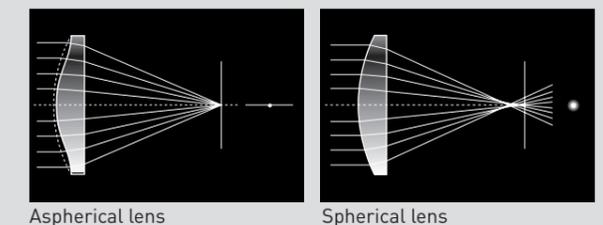
## Multicoating Process

Utmost caution is exercised in coating the LUMIX G/LEICA DG lenses to suppress ghosts and flaring, while ensuring optimum color balance. In addition to a standard broadband anti-reflection coating, LUMIX G/LEICA DG lenses feature a coating that reduces the reflectance of light that enters at an angle. This multicoating process is widely used on lenses with a small radius of curvature, such as those in ultra-wide-angle lenses and fisheye lenses. It greatly improves the image rendering performance when shooting against a light source. Moreover, the bonded surfaces of cemented lenses are also given an original multicoating process to further reduce reflection. This results in high-quality images with superb clarity.



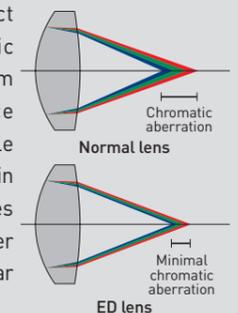
## Aspherical Lenses

To assure superior image quality while reducing size and weight, each LUMIX G/LEICA DG lens features a number of aspherical lenses that effectively prevent lens aberration, such as spherical and distortion aberration. Each aspherical lens has the effect of several spherical lenses, so a higher magnification ratio can be achieved with fewer lenses. The result is smaller overall size and weight. Aspherical lenses are extremely difficult to produce, however, because they demand high dimensional accuracy. In the past this restricted the applicable lens shapes and materials, but Panasonic has made great strides in this area. Our Yamagata Plant began developing cutting-edge production technologies for molded lenses early on, and today the plant manufactures a wide variety of lenses – including concave lenses that have a large thickness difference and measure a mere 0.3 mm at the thinnest part. The aspherical lenses with superb image rendering ability produced at this plant now see widespread use.



## Extra-Low Dispersion Lenses

In a conventional lens made only of optical glass, it becomes difficult to correct chromatic aberration when the focal length is long or the angle of view is wide, thus resulting in contrast degradation or color bleeding. This problem has been solved by Panasonic's Extra-Low Dispersion (ED) lens. It suppresses the prism's color separation effect to correct longitudinal chromatic aberration at the telephoto zoom setting and chromatic difference of magnification at the wide-angle setting. The ED lens is used mainly in LUMIX G/LEICA DG telephoto lenses and wide-angle zoom lenses to render sharp, high-contrast images with clear colors from corner to corner.

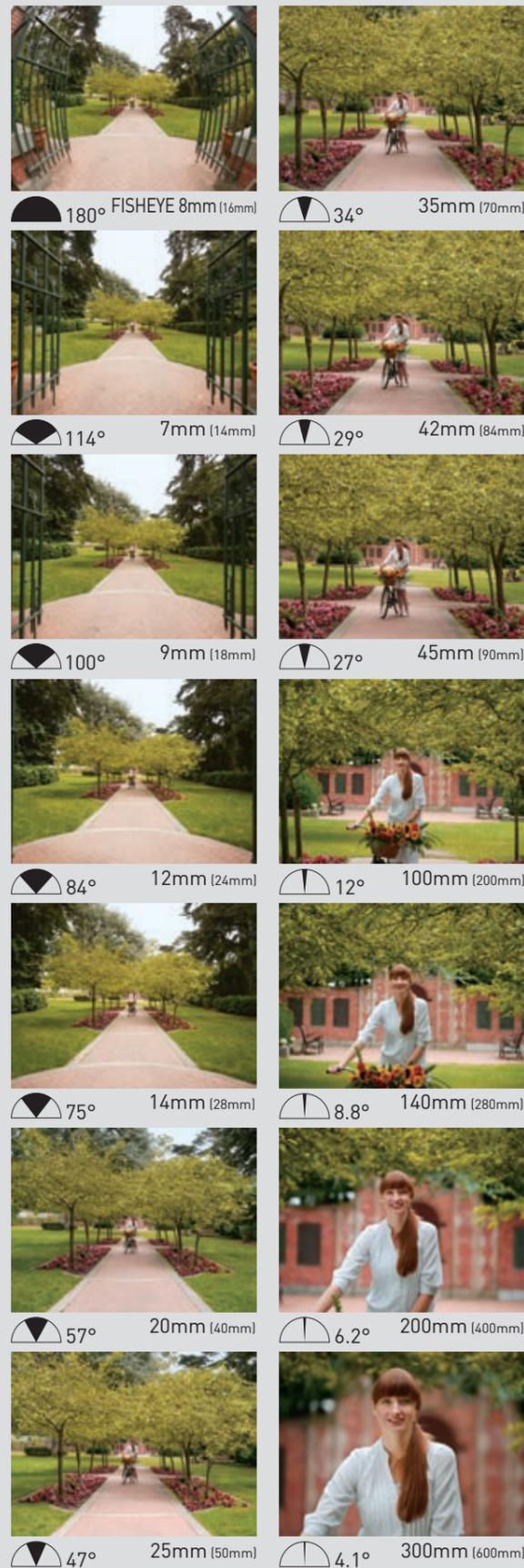


## Ultra-High Refractive Index (UHR) Lens

The use of the newly developed ultra-high refractive index (UHR) lens has improved optical performance, reduced size and weight, and achieved uniform image quality from the center to the edges of the image.

# Lens Knowledge

Things you should know about lenses to maximize your photographic enjoyment.



\*Figures in parentheses are 35mm camera equivalent values.

## What are angle of view and focal length?

The angle of view is the area of the image captured by the image sensor, expressed as an angle. The larger the angle of view, the shorter the focal length. The smaller the angle of view, the longer the focal length. A lens with a short focal length and a large angle of view is called a wide-angle lens. A lens with a long focal length and a small angle of view is called a telephoto lens. In the LUMIX G Micro System, the diagonal dimension of the image sensor has been downsized to half that of a 35mm film frame, so the focal length is twice as long when converted to that of a 35mm camera. For example, the angle of view for a LUMIX G 25mm lens is 47°, which is the same as the angle of view for a 50mm lens on a 35mm camera.

## What's the F-number?

Lens brightness is determined by the focal length and effective lens diameter. If you divide the focal length by the effective lens diameter, you get a value called the F-number. The smaller the F-number, the brighter the lens (the larger the aperture). A bright lens has several key advantages. For example, a brighter lens lets you use a faster shutter speed, so you can get clear, blur-free shots even in dim lighting. It also lets you give the background a soft focus.

## What's depth of field?

Depth of field is the range of object distances (in the depth direction) within which objects have acceptable sharpness. A long focal length (telephoto lens) or small F-number (bright lens) makes the depth of field shallower. A short focal length (wide-angle lens) or large F-number (dark lens) makes the depth of field greater. With a shallow depth of field, it's easier to take pictures in which the background is intentionally given a soft focus, thus emphasizing the sharp subject focus. With a large depth of field, you can keep objects in the foreground and objects in the background all in focus (for a pan-focus effect).



## What's perspective?

Perspective refers to the relationship between nearby and distant objects. A wide-angle lens makes objects close to the lens appear larger and faraway objects smaller. This emphasizes the distance (depth) between nearby and distant objects, making the background appear farther away and expansive. A telephoto lens, on the other hand, compresses the perspective, thus deemphasizing the distance between objects in the foreground and objects in the background.



\*Figures in parentheses are 35mm camera equivalent values.

## What's the magnification ratio?

The magnification ratio is a numerical value that indicates the size difference between the actual size of an object and the size of that object captured on the image sensor. For example, if a 10-mm object is captured in a 5-mm size on the image sensor through a lens, that lens has a magnification ratio of 0.5x. If the object is captured in a 10-mm size, the lens has a magnification ratio of 1.0x, which is also referred to as "1:1."

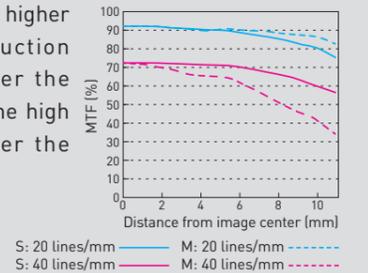
\*The maximum image magnification of a Micro Four Thirds System lens can be converted into the maximum image magnification of a 35mm camera lens by multiplying "the indicated maximum image magnification x 2".



## What's MTF?

MTF stands for Modulation Transfer Function. It's one of the indexes used to describe lens performance. The MTF is a numerical value that indicates how accurately a lens can reproduce the contrast of an object. The vertical axis of the graph shows contrast reproducibility (%), while the horizontal axis indicates the distance (mm)

from the image center. The image quality is evaluated in the sagittal direction "S" (parallel to the radius of the image circle) and in the meridional direction "M" (radial direction) using two frequencies (high frequency: 40 lines/mm, low frequency: 20 lines/mm). The solid lines represent sagittal measurements, and the dotted lines indicate meridional measurements. The higher up (100%) the graph, the better the image rendering capability of the lens. The higher the measurements with the low frequency, the higher the contrast reproduction capability. The higher the measurements with the high frequency, the higher the resolving power.



## Lens Designation

LUMIX G X VARIO

**PZ 45-175mm / F4.0-5.6 ASPH./**



### 1 Power Zoom

This indicates that the lens is equipped with the electric-power zoom function for easy zooming operation.

### 2 Focal length

The smaller the focal length, the wider the angle of view (wide angle). The larger the focal length, the smaller the angle of view (telephoto). The number on the left is the focal length at the wide-angle setting, and the number on the right is the focal length at the telephoto setting.

### 3 F-number

The smaller the F-number, the brighter the lens. The number on the left is the F-number for the fully opened aperture at the wide-angle setting, and the number on the right is the F-number for the fully opened aperture at the telephoto setting. (The F-number takes an intermediate value while zooming.)

### 4 Aspherical lens

"ASPH." means that the lens includes one or more aspherical lenses.

### 5 Hand-shake compensation

"POWER O.I.S." (or "MEGA O.I.S.") indicates that the lens is equipped with an optical image stabilizer for hand-shake compensation.

### 6 HD Video Support

This indicates that the lens features the "silent design" for improved video recording and offers excellent focus tracking performance.

# How to Choose Lenses

Tips on selecting the most suitable lens for your subject and shooting situation.

## for Landscapes



The 7-14mm or 14mm pancake lens lets you emphasize the perspective and express how vast a particular landscape is.



LUMIX G VARIO  
7-14mm / F4.0 ASPH.



LUMIX G  
14mm / F2.5 ASPH.



The 14-42mm or 14-45mm, 14-42mmPZ lens lets you capture medium telephoto shots that draw in distant landscapes.

LUMIX G VARIO  
14-42mm / F3.5-5.6  
ASPH. / MEGA O.I.S.



LUMIX G VARIO  
14-45mm / F3.5-5.6  
ASPH. / MEGA O.I.S.



LUMIX G X VARIO PZ  
14-42mm / F3.5-5.6  
ASPH. / POWER O.I.S.



The 45mm macro lens maintains image sharpness all the way to the edges, even when shooting at infinity.



LEICA DG MACRO-ELMARIT  
45mm / F2.8 ASPH. /  
MEGA O.I.S.

## for Traveling and Casual Snapshots



The 20mm pancake lens is always ready to grab photos on the fly.



LUMIX G  
20mm / F1.7 ASPH.



LUMIX G  
14mm / F2.5 ASPH.

The 14mm wide-angle pancake lens or 7-14mm ultra-wide-angle lens lets you fit more into the photo when shooting in tight spaces, such as at an indoor party or inside a car.



LUMIX G VARIO  
7-14mm / F4.0 ASPH.



LUMIX G VARIO  
14-42mm / F3.5-5.6  
ASPH. / MEGA O.I.S.



LUMIX G VARIO  
14-45mm / F3.5-5.6  
ASPH. / MEGA O.I.S.



The 14-42mm or 14-45mm standard zoom lens covers a wide range of uses, such as photographing landscapes and people during your travels.



LUMIX G X VARIO PZ  
14-42mm / F3.5-5.6  
ASPH. / POWER O.I.S.

The 14-42mm PZ ultra-compact power zoom lens is suitable for a various shooting situations - from pictures of travel scenes to portraits.

## for Portraits



The 14-42mm, 14-45mm, 14-42mmPZ and 14-140mm lenses let you capture natural-looking portraits from a medium distance while talking to your subject.



LUMIX G VARIO  
14-42mm / F3.5-5.6  
ASPH. / MEGA O.I.S.



LUMIX G VARIO  
14-45mm / F3.5-5.6  
ASPH. / MEGA O.I.S.



LUMIX G X VARIO PZ  
14-42mm / F3.5-5.6  
ASPH. / POWER O.I.S.

The large-aperture 45mm or 20mm pancake lens lets you capture the subject in clear focus while softly blurring the background.



LUMIX G VARIO HD  
14-140mm / F4.0-5.8  
ASPH. / MEGA O.I.S.



The F1.4 large-diameter 25mm lens is an excellent choice for capturing the ambience of a dark room with a natural light effect.



LEICA DG MACRO-ELMARIT  
45mm / F2.8 ASPH. /  
MEGA O.I.S.



LUMIX G  
20mm / F1.7 ASPH.



LEICA DG SUMMILUX  
25mm / F1.4 ASPH.

## for Animals



When photographing indoor pets that won't sit still, the 25mm or 20mm lens lets you shoot at faster shutter speeds, making it possible to capture sharp, bright shots.



LEICA DG SUMMILUX  
25mm / F1.4 ASPH.



LUMIX G  
20mm / F1.7 ASPH.

To photograph birds or other animals in the wild - when it would be dangerous or impossible to approach - use the 45-200mm or 100-300mm telephoto zoom lens. We also recommend the 45-175mmPZ lens with the power zoom function. This compact lens is suitable for video shooting.



LUMIX G VARIO  
45-200mm / F4.0-5.6 /  
MEGA O.I.S.



LUMIX G VARIO  
100-300mm / F4.0-5.6 /  
MEGA O.I.S.



LUMIX G X VARIO PZ  
45-175mm / F4.0-5.6  
ASPH. / POWER O.I.S.

## for Sports and Vehicles



Use the 45-175mmPZ or 45-200mm, 100-300mm telephoto zoom lens to capture dynamic action shots from the stands at a sports event or racetrack.



LUMIX G X VARIO PZ  
45-175mm / F4.0-5.6  
ASPH. / POWER O.I.S.



LUMIX G VARIO  
45-200mm / F4.0-5.6 /  
MEGA O.I.S.



LUMIX G VARIO  
100-300mm / F4.0-5.6 /  
MEGA O.I.S.

## for Events



The 14-140mm 10x optical zoom lens has the versatility to handle a wide range of shots. And you can use it not only to capture stunning photos, but when shooting HD videos too.



LUMIX G VARIO HD  
14-140mm / F4.0-5.8  
ASPH. / MEGA O.I.S.

## for Close-up Shots



The 45mm macro can render superb close-ups of small, detailed objects, such as flowers, insects or jewelry.



LEICA DG MACRO-ELMARIT  
45mm / F2.8 ASPH. /  
MEGA O.I.S.



LUMIX G X VARIO PZ  
45-175mm / F4.0-5.6  
ASPH. / POWER O.I.S.



LUMIX G VARIO  
45-200mm / F4.0-5.6 /  
MEGA O.I.S.



LUMIX G VARIO  
100-300mm / F4.0-5.6 /  
MEGA O.I.S.

To capture detailed views of faraway objects - for example, the engravings on a distant building - use the 45-175mmPZ or 45-200mm, 100-300mm lens.

## for Unique Shots



The 8mm fisheye and 7-14mm ultra-wide-angle lens let you capture distinctive, intriguing shots with unusual deformation effects. You can use them for both photos and videos.



LUMIX G FISHEYE  
8mm / F3.5



LUMIX G VARIO  
7-14mm / F4.0 ASPH.



The 12.5mm 3D lens can be used for shooting dynamic 3D photos.

LUMIX G  
12.5mm / F12

# Optional Accessories

Choose from a wide lineup of fun-enhancing accessories.

## PL Filter (Circular Type)

Helps eliminate reflections while preserving the naturally vivid colors of the subject.

- 67mm DMW-LPL67
- 62mm DMW-LPL62
- 52mm DMW-LPL52
- 46mm DMW-LPL46
- 37mm DMW-LPL37



Without PL filter      With PL filter

## ND (Neutral Density) Filter (ND8)

Lets you use slower shutter speeds even in the bright outdoors, and reduces light intensity by three aperture stops.

- 62mm DMW-LND62
- 52mm DMW-LND52
- 46mm DMW-LND46
- 37mm DMW-LND37



Without ND filter      With ND filter

## External TTL Flash

Provides perfect lighting for shots of slightly distant subjects in the dark.

- GN22 DMW-FL220
- GN36 DMW-FL360
- GN50 DMW-FL500



## Mount Adaptor

Enables the use of lenses other than those of the Micro Four Thirds System standard.

- DMW-MA1 for the Four Thirds System standard
- DMW-MA2M for M mount lens of Leica Camera AG
- DMW-MA3R for R mount lens of Leica Camera AG



## MC Protector

Protects the camera lens from scratches and other damage.

- 67mm DMW-LMCH67
- 62mm DMW-LMCH62
- 52mm DMW-LMC52
- 46mm DMW-LMC46
- 37mm DMW-LMCH37



## Stereo Microphone

Ambient sounds can be clearly recorded in higher quality and from greater distances.

DMW-MS1



## Live View Finder

Live View Finder attaches to the hot shoe. It is also handy for low-angle shots because it can be tilted vertically from 0 to 90 degrees.

DMW-LVF1

[202,000-dot equivalent]  
Applicable models: DMC-GF1 / DMC-GF2 / DMC-LX5



DMW-LVF2

[1,440,000-dot equivalent]  
Applicable models: DMC-GX1\*  
\*As of November 2011



## HDMI Mini Cable

Lets you send your photos and videos from the camera directly to an HDTV, with virtually no degradation.

- 1.5m RP-CDHM15
- 3.0m RP-CDHM30



## Remote Shutter

Allows remote operation of the shutter button when, for example, you are using a tripod. With shutter lock for bulb exposures.

DMW-RSL1



## Battery

Spare batteries for more shooting enjoyment.

- DMW-BLB13
- DMW-BLC12
- DMW-BLD10
- DMW-BLE9



## Zoom Lever

Lets you zoom in and out at a steady speed for video recording.

DMW-ZL1



\*LUMIX G Micro System cameras come with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.jp/support/global/cs/info/battery.html> (This website is in English only.)

# LUMIX Four Thirds Lenses

The optional DMW-MA1 Mount Adaptor also lets you use LEICA D lenses, which are renowned for their clarity and stunning image beauty.



LEICA D VARIO-ELMARIT  
14-50mm / F2.8-3.5 ASPH. / MEGA O.I.S.



LEICA D VARIO-ELMAR  
14-50mm / F3.8-5.6 ASPH. / MEGA O.I.S.



LEICA D VARIO-ELMAR  
14-150mm / F3.5-5.6 ASPH. / MEGA O.I.S.



LEICA D SUMMILUX  
25mm / F1.4 ASPH.

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# Specifications

## Micro Four Thirds System Standard



Lens	35mm Equivalent Focal Length	AF Actuator	O.I.S.	HD Video Support	Lens Construction Elements-Groups	Angle of View	Number of Blades	Minimum Aperture	Closest Focusing Distance (m / ft.)	Maximum Image Magnification (35mm equivalent)	Filter Size (mm)	Diameter (φ) x Length (mm / in.)	Weight (g / oz.)	Standard Accessories
LUMIX G X VARIO PZ 14-42mm / F3.5-5.6 ASPH. / POWER O.I.S. ✕	28-84mm	Stepping Motor	POWER O.I.S.*5	●	9-8	75°-29°	7 (Circular aperture diaphragm)	22	0.2 / 0.66, 0.3 / 0.98*3	0.17x (0.34x)	37	φ 61 x 26.8*4 / φ 2.4 x 1.1*4	95 / 3.4	Lens cap, Lens rear cap, Lens storage bag
LUMIX G X VARIO PZ 45-175mm / F4.0-5.6 ASPH. / POWER O.I.S. ✕	90-350mm	Stepping Motor	POWER O.I.S.*5	●	14-10	27°-7.1°	7 (Circular aperture diaphragm)	22	0.9 / 3.0	0.2x (0.4x)	46	φ 61.6 x 90.0 / φ 2.4 x 3.5	210 / 7.4	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G VARIO 7-14mm / F4.0 ASPH.	14-28mm	Stepping Motor	-	●	16-12	114°-75°	7 (Circular aperture diaphragm)	22	0.25 / 0.8	0.08x (0.15x)	-	φ 70 x 83.1 / φ 2.76 x 3.27	300 / 10.58	Lens cap, Lens rear cap, Lens storage bag
LUMIX G VARIO 14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S.	28-84mm	Stepping Motor	MEGA O.I.S.*5	●	12-9	75°-29°	7 (Circular aperture diaphragm)	22	0.3 / 1	0.16x (0.32x)	52	φ 60.6 x 63.6 / φ 2.39 x 2.50	165 / 5.82	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G VARIO 14-45mm / F3.5-5.6 ASPH. / MEGA O.I.S.	28-90mm	Stepping Motor	MEGA O.I.S.*5	●	12-9	75°-27°	7 (Circular aperture diaphragm)	22	0.3 / 1	0.17x (0.34x)	52	φ 60 x 60 / φ 2.36 x 2.36	195 / 6.88	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G VARIO HD 14-140mm / F4.0-5.8 ASPH. / MEGA O.I.S.	28-280mm	Linear Motor	MEGA O.I.S.*5	●	17-13	75°-8.8°	7 (Circular aperture diaphragm)	22	0.5 / 1.64	0.2x (0.4x)	62	φ 70 x 84 / φ 2.76 x 3.31	460 / 16.2	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G VARIO 45-200mm / F4.0-5.6 / MEGA O.I.S.	90-400mm	Stepping Motor	MEGA O.I.S.*5	●	16-13	27°-6.2°	7 (Circular aperture diaphragm)	22	1.0 / 3.3	0.19x (0.38x)	52	φ 70 x 100 / φ 2.76 x 3.94	380 / 13.4	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G VARIO 100-300mm / F4.0-5.6 / MEGA O.I.S.	200-600mm	Stepping Motor	MEGA O.I.S.*5	●	17-12	12°-4.1°	7 (Circular aperture diaphragm)	22	1.5 / 4.92	0.21x (0.42x)	67	φ 73.6 x 126 / φ 2.90 x 4.96	520 / 18.3	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G 14mm / F2.5 ASPH.	28mm	Stepping Motor	-	●	6-5	75°	7 (Circular aperture diaphragm)	22	0.18 / 0.59	0.10x (0.20x)	46	φ 55.5 x 20.5 / φ 2.19 x 0.81	55 / 1.9	Lens cap, Lens rear cap, Lens storage bag
LUMIX G 20mm / F1.7 ASPH.	40mm	Stepping Motor	-	-	7-5	57°	7 (Circular aperture diaphragm)	16	0.2 / 0.66	0.13x (0.25x)	46	φ 63 x 25.5 / φ 2.48 x 1.00	100 / 3.53	Lens cap, Lens rear cap, Lens storage bag
LEICA DG SUMMILUX 25mm / F1.4 ASPH.	50mm	Stepping Motor	-	-	9-7	47°	7 (Circular aperture diaphragm)	16	0.3 / 0.98	0.11x (0.22x)	46	φ 63 x 54.5 / φ 2.48 x 2.14	200 / 7.05	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LEICA DG MACRO-ELMARIT 45mm / F2.8 ASPH. / MEGA O.I.S.	90mm	Stepping Motor	MEGA O.I.S.*5	-	14-10	27°	7 (Circular aperture diaphragm)	22	0.15 / 0.50 (FULL), 0.5 / 1.64 (LIMIT)	1.0x (2.0x)	46	φ 63 x 62.5 / φ 2.48 x 2.46	225 / 7.94	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LUMIX G FISHEYE 8mm / F3.5	16mm	Stepping Motor	-	●	10-9	180°	7 (Circular aperture diaphragm)	22	0.1 / 0.33	0.20x (0.40x)	*1	φ 60.7 x 51.7 / φ 2.39 x 2.04	165 / 5.82	Lens cap, Lens rear cap, Lens storage bag
LUMIX G 12.5mm / F12	65mm*2	-	-	-	4-3x2	37°*2	-	-	0.6 / 1.97	0.02x (0.1x*2)	-	φ 57.0 x 20.5 / φ 2.24 x 0.81	45 / 1.59	Lens cap, Lens rear cap, Lens storage bag
Mount Adaptor DMW-MA1	-	-	-	-	-	-	-	-	-	-	-	φ 71 x 24 / (φ 2.80 x 0.94)	87 / 3.07	-
M Mount Adaptor DMW-MA2M	-	-	-	-	-	-	-	-	-	-	-	φ 61 x 13 / (φ 2.40 x 0.51)	60 / 2.12	-
R Mount Adaptor DMW-MA3R	-	-	-	-	-	-	-	-	-	-	-	φ 67 x 33 / (φ 2.64 x 1.30)	90 / 3.17	-

## Four Thirds System Standard



Lens	35mm Equivalent Focal Length	AF Actuator	O.I.S.	HD Video Support	Lens Construction Elements-Groups	Angle of View	Number of Blades	Minimum Aperture	Closest Focusing Distance (m / ft.)	Maximum Image Magnification (35mm equivalent)	Filter Size (mm)	Diameter (φ) x Length (mm / in.)	Weight (g / oz.)	Standard Accessories
LEICA D VARIO-ELMARIT 14-50mm / F2.8-3.5 ASPH. / MEGA O.I.S.	28-100mm	DC Motor	MEGA O.I.S.	-	16-12	75°-24°	7 (Iris diaphragm)	22	0.29 / 0.95	0.16x (0.32x)	72	φ 78.1 x 97.4 / φ 3.07 x 3.83	490 / 17.3	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LEICA D VARIO-ELMAR 14-50mm / F3.8-5.6 ASPH. / MEGA O.I.S.	28-100mm	DC Motor	MEGA O.I.S.*5	-	15-11	75°-24°	7 (Circular aperture diaphragm)	22	0.29 / 0.95	0.21x (0.42x)	67	φ 74 x 93 / φ 2.91 x 3.66	434 / 15.3	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LEICA D VARIO-ELMAR 14-150mm / F3.5-5.6 ASPH. / MEGA O.I.S.	28-300mm	Supersonic Wave Motor	MEGA O.I.S.*5	-	15-11	75°-8.2°	7 (Circular aperture diaphragm)	22	0.5 / 1.64	0.18x (0.36x)	72	φ 78.5 x 90.4 / φ 3.09 x 3.56	535 / 18.9	Lens cap, Lens hood, Lens rear cap, Lens storage bag
LEICA D SUMMILUX 25mm / F1.4 ASPH.	50mm	DC Motor	-	-	10-9	47°	7 (Circular aperture diaphragm)	16	0.38 / 1.25	0.09x (0.17x)	62	φ 77.7 x 75 / φ 3.06 x 2.95	510 / 18	Lens cap, Lens hood, Lens rear cap, Lens storage bag

\*We recommend that you update the firmware to enjoy a more comfortable shooting experience. For further details, visit <http://panasonic.jp/support/global/cs/dsc/index.html>.

\*The compression level of product photographs shown in this catalog varies. Check the above table for actual sizes.

\*1 Front: Mounting not possible, Rear: Sheet filter holder 22mm / 0.86 inch x 22mm / 0.86 inch

\*2 When setting the aspect ratio at 16:9 with the DMC-GH2

\*3 Condition: 0.2 m / 0.66 ft in 14mm-20mm, 0.3 m / 0.98 ft in 21mm-42mm

\*4 When the lens is retracted

\*5 The vertical position detection function is enabled when combined with the DMC-G1/G2/G3/G10/GH1/GH2/GF1/GF2/GF3. When the DMC-GX1 is mounted, the vertical position detection function in the camera body becomes active. (With a Micro Four Thirds System or Four Thirds System lens.)

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