

## CASTEL-MICRO

This electronically controlled focusing rack has been specially developed for focus stacking in close-up and extreme macro photography of, e.g., insects, minerals, scientific documentation and much more. The CASTEL MICRO has a maximum travel distance of 100 mm and its smallest repeatable step distance is 0.2 micrometer.



## Information

For more information, advice and tips concerning our products contact your photo dealer, the distributor of NOVOFLEX products in your country (have a look at the "Where to buy" section at our website to find your distributor) or visit our website [www.novoflex.com](http://www.novoflex.com)

For personal advice about possible accessories which is suitable for your NOVOFLEX product please contact the following phone number or send us an E-mail.

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## Reverse Adapters RETRO

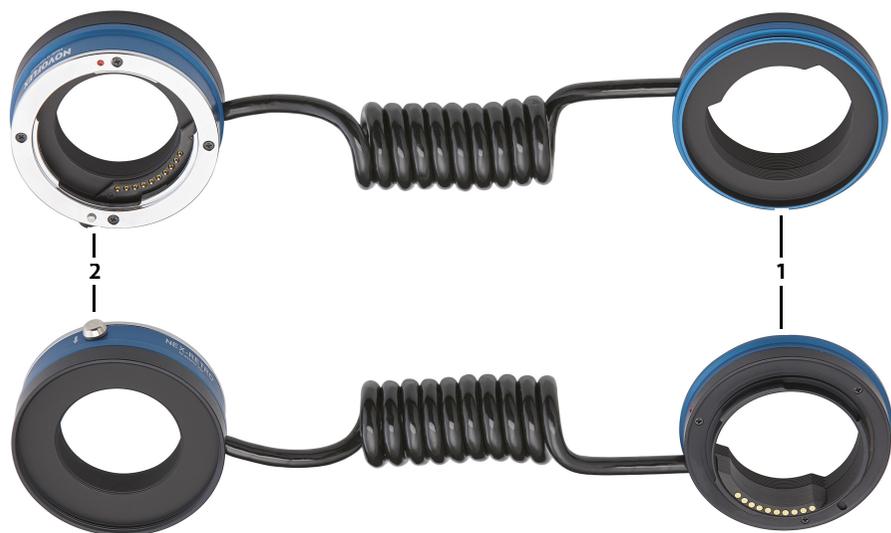
USER MANUAL



Application example: Used as reverse adapters (top) and in combination with the universal bellows unit BAL-F (below). Both pictures show optional accessories.

## Nomenclature

1	Camera connector
2	Lens connector with unlocking button
3	Protective filter
4	Stepping ring (optional)



## Accessories Recommendations

### Stepping Rings

If your lens has a different filter diameter than 58mm, a stepping ring (4) is required for the adaptation.



Lens filter diameter	Stepping ring (order code):
37mm	REDUZIERRING 58/37
46mm	REDUZIERRING 58/46
49mm	REDUZIERRING 58/49
52mm	REDUZIERRING 58/52
55mm	REDUZIERRING 58/55
62mm	REDUZIERRING 58/62
67mm	REDUZIERRING 58/67
72mm	REDUZIERRING 58/72
77mm	REDUZIERRING 58/77
82mm	REDUZIERRING 58/82

### Focusing Racks

For focusing by changing the distance, we recommend our stable focusing racks of the CASTEL series. These include:



#### CASTEL Mini II

Our smallest focusing rack has an adjustment travel of 10cm. Mounting is possible on any standard tripod head or directly on the quick releases Q=BASE II or Q=MOUNT.



#### CASTEL Q

This focusing rack is equipped with a dovetail quick-release on top and holds clamping plates of the Q system (ARCA UniQ/C compatible). The adjustment travel is 12.5cm. Shown here with the adjustment handle CAST-FINE for even finer settings of the slider, e.g. for focus stacking.



#### CASTEL XQ II

Being only 25cm in length, this focusing rack offers a camera movement of 37.5cm thanks to the new and integrated Q=MOUNT XD cross quick-release. When using a second focusing rack, e.g. the CASTEL-Q, CASTEL Mini II or CASTEL-XQ II a cross focusing rack for precise adjustment in two directions can be set up within seconds.

## Practical Tips

The advantage of macro shots in reverse “retro” position is the preservation of optical power and light intensity of the lens used. The more wide-angle the lens used, the greater the achievable magnification. We recommend a standard 28mm wide angle lens, but it is also possible to use zoom lenses of appropriate specification.



### Magnification 1:1

Here, the reverse adapters were used in combination with a **50mm** lens and a 35mm full-frame camera. Distance about 7cm.



### Magnification 2,8:1

Here, the reverse adapters were used in combination with a **28mm** lens and a 35mm full-frame camera. Distance about 3.4cm.

When approaching the limits of macro photography, focusing should be carried out by changing the distance between camera system and subject, rather than manual or automatic adjustment of the focusing ring of the lens. Since even small changes decide on the distribution of sharpness in the image, we recommend the use of a NOVOFLEX focusing rack series CASTEL.



Application example: Used as reverse adapters RETRO in combination with the focusing rack CASTEL Mini II.

## Product Description

The automatic NOVOFLEX reverse adapters RETRO open up the world of extreme close-up photography with outstanding quality for owners of Canon EOS, EOS-R, Fuji X, L-Mount (Leica, Panasonic, Sigma), Nikon Z, MicroFourThirds and Sony E-Mount-wide-angle or zoom lenses. The lens is mounted with the help of the reverse adapters in the inverse position on the camera body. The rings transfer all control functions.

Example: With a Canon EOS 28-105 mm zoom lens in reverse position, you get an image ratio of 1:7 with a focal length of 105 mm up to 2.8:1 at 28 mm.

This is a wider setting range than is possible with a macro lens. The NOVOFLEX automatic reverse adapters are supplied with a standard 58 mm filter diameter. Stepping rings (4) are available for other filter sizes.

Since high magnifications often require very short shooting distances, it is recommended to mount the protective filter (3) included in the delivery on the opposite side. The rear lens, which becomes the front lens in reverse position, is thus protected from collisions with the subject. In addition, the penetration of dirt and moisture is prevented e.g. in outdoor use.

Our BAL-F, BALPRO and CASTBAL series bellows units can be upgraded to full-fledged automatic bellows units, when combining them with these RETRO reverse adapters. This works also with the BALPRO T/S and CASTBAL T/S with tilt/shift function for the near and macro range. Corresponding adapter rings (see page 4) are necessary for this.

## Operation

### Use of the reverse adapters

1. The camera connector (1) is inserted (like a lens) into the bayonet of the camera.
2. On the lens side, the camera connector has a 58mm thread, into which the lens is screwed in. For lens filter diameters other than 58mm, suitable stepping rings (see page 7) are optionally available as accessories.
3. The lens is connected to the lens connector (2) in the same way as with the camera. Now all connections are made.
4. To protect the rear lens, it is recommended to use the protective filter (3).
5. To disassemble the reversing ring, loosen the corresponding release button on the lens mount and camera body in reverse order. Please note that you push the unlocking button (2) on the lens connector ring away from the lens in the direction of the engraved arrow.

## Use with the universal bellows BAL-F, BALPRO or CASTBAL with auto-focus, exposure and aperture transmission

The RETRO reverse adapters are mounted on the respective bellows unit with the help of two adapter rings (special accessories, not included in delivery). Depending on the bellows units, the following adapter rings are required:

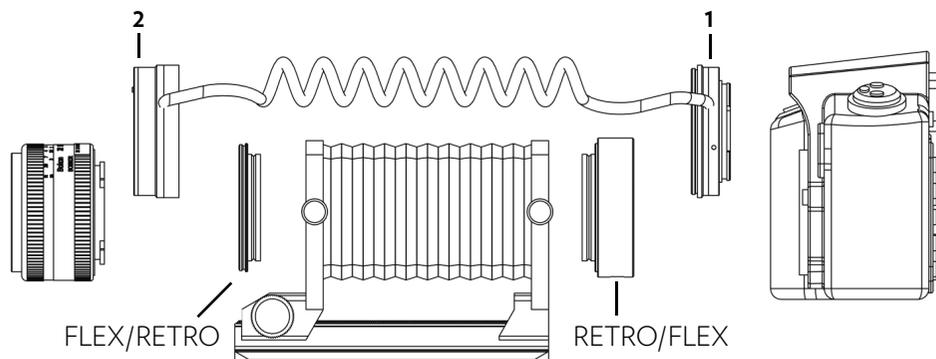
### Bellows unit Adapter rings (lens and camera side)

Bellows unit	Adapter rings (lens and camera side)
BAL-F	FLEX/RETRO and RETRO/FLEX
BALPRO	PRO/RETRO and RETRO/PRO
CASTBAL	UNI/RETRO and RETRO/UNI

1. The camera-side adapter ring is screwed into the camera connector (1) of the RETRO reverse adapters. The camera is attached and locked accordingly.
2. The lens-side adapter ring is screwed into the lens connector (2) of the RETRO reverse adapters. The lens is now inserted in the bayonet of the lens connector and locked.
3. Now insert both connection units into the openings of the bellows unit and lock them with the fixing screws on the front- and backstandart.
4. To disassemble, release the corresponding unlock button on the camera body. To dismantle the lens connector of the reverse adapters from the lens, push the unlock button (2) in the direction of the engraved arrow.



Lens in normal position



Assembly example (center and bottom): Use of the RETRO reverse adapters in combination with the universal bellows unit BAL-F.

## The lens in reverse position on a bellows unit

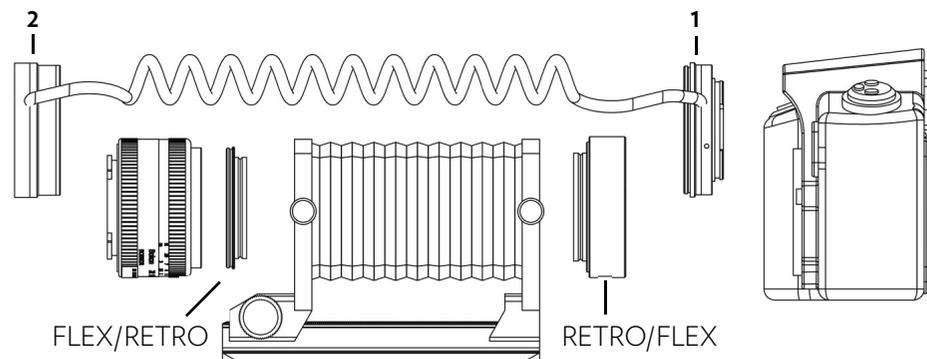
The assembly corresponds to the installation in normal position, but this time the lens and not the lens connector is screwed into the lens-side adapter ring 58mm bellows unit. If the lens has a different filter diameter than 58mm, appropriate stepping rings (see page 7) are optionally available as accessories. The lens connector (2) of the reverse adapters is inserted into the bayonet ring of the lens. Now the protective filter (3) can be mounted.



Lens in reverse position

For lenses with larger front lens diameter, a spacer is available to allow attachment to the front standart. Alternatively, the installation can be made reversed with the lens attached to the rear standart.

To disassemble, release the corresponding unlock button on the camera body. To dismantle the lens connector of the reverse adapters from the lens, push the unlock button (2) in the direction of the engraved arrow. Now the lens can be unscrewed from the lens connector of the reverse adapters.



Assembly example (center and bottom): Use of the RETRO reverse adapters in combination with the universal bellows unit BAL-F, with the lens mounted in **reverse position**.