

HEDÉN ENGINEERING

Lens Control Systems

Control Boxes

Focus Control Box AE-2 — A focus control unit for professional film-and Video/HD-cameras

- To be used together with the HEDÉN motor M26P, M28VP or M32P forming a high precision null-seeking closed loop servo system providing perfect follow-focus
- Alternative use as an iris control
- Delivered with power and motor cables

SPECIFICATIONS:

Weight:	328 g / 11.57 ozs
Length:	118 mm / 4.65 inches
Width:	68 mm / 2.68 inches
Height:	53.5 mm / 2.09 inches
Power supply:	12-24 V DC
No load current:	Approx. 40 mA



Focus Control Box AE-3 — A focus control unit for professional film-and Video/HD-cameras

- To be used together with the HEDÉN motor M26PT, M28VPT or M32PT forming a high precision null-seeking closed loop servo system providing perfect follow-focus
- Alternative use as an iris control
- Delivered with power and motor cables

SPECIFICATIONS:

Weight:	473 g / 16.68 ozs
Length:	135 mm / 5.31 inches
Width:	76 mm / 2.99 inches
Height:	53.5 mm / 2.09 inches
Power supply:	12-24 V DC
No load current:	Approx. 40 mA



Zoom Control Box AZ-3 — A zoom control unit for professional film-and Video/HD-cameras

- To be used together with the HEDÉN motor M26PT, M28VPT or M32PT forming a high precision null-seeking closed loop servo system
- Zoom speeds from approx. 1 second up to 40 minutes (depending on lens)

SPECIFICATIONS:

Weight:	430 g / 15.16 ozs
Length:	155 mm / 6.10 inches
Width:	62 mm / 2.44 inches
Height:	37 mm / 1.45 inches
Power supply:	12-24 V DC
No load current:	Approx. 40 mA



Servo Motors

Servo Motor M26P — The HEDÉN M26P is a horizontal orientated lens servomotor for professional film-and Video/HD-cameras

- Together with appropriate control unit this motors forms a high precision null seeking closed loop servo system
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size

SPECIFICATIONS:

Weight:	180 g / 6.35 ozs
Length:	88.5 mm / 3.48 inches
Width:	43 mm / 1.69 inches
Body diameter:	26 mm / 1.02 inches
Power supply:	Via control unit
No load current:	Approx. 55 mA
Torque:	Approx. 1.4 Nm
Connector:	LEMO size 1 5-pin



Servo Motor M26PT — The HEDÉN M26PT is a horizontal orientated lens servomotor for professional film-and Video/HD-cameras

- Together with the focus control box AE-3 and zoom control box AZ-3 this motor forms a high precision null seeking closed loop servo system.
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size

SPECIFICATIONS:

Weight:	210 g / 6.56 ozs
Length:	108 mm / 4.25 inches
Body diameter:	26 mm / 1.02 inches
Power supply:	12–24 V DC
No load current:	Approx. 100 mA
Torque:	Approx. 1.20 Nm
Connector:	LEMO size 1 7-pin



Servo Motor M26T — The HEDÉN M26T is a horizontal orientated lens servomotor for professional film-and Video/HD-cameras

- A high precision motor with tachogenerator
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size

SPECIFICATIONS:

Weight:	186 g / 6.56 ozs
Length:	108 mm / 4.25 inches
Body diameter:	26 mm / 1.02 inches
Power supply:	12–24 V DC
No load current:	Approx. 90 mA
Torque:	Approx. 1.20 Nm
Connector:	LEMO size 1 4-pin



Mounting Bracket UM-26

SPECIFICATIONS:

Supported motors: M26P and M26PT



Mounting Bracket UM-26s

SPECIFICATIONS:

Supported motors: M26T



Extension Bracket

SPECIFICATIONS:

Length: 27 mm / 1.06 inches



Extension Bracket Extra Long

SPECIFICATIONS:

Length: 54 mm / 2.12 inches



Servo Motor M28VP — The HEDÉN M28VP is a vertical orientated lens servomotor for professional film-and Video/HD-cameras

- Together with appropriate control unit this motors forms a high precision null seeking closed loop servo system
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- No tools needed for mounting
- Interchangeable snap-on gears with automatic lock action to be mounted on either side of the motor
- In power-off-mode the motor gear is easily turned manually
- Supplied with 4 snap-on gears, modules 0.8 – 0.6 – 0.5 – 0.4 and inserts for 19/15 mm and 5/8 inch rods.
- Integrated adjustable bracket
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size
- Insert for 0.5 inch rods (optional)
- 2 inch diameter snap-on gears (optional)
- Inserts for 0.5 inch rods (optional)
- 2 inch diamater gear (optional)



SPECIFICATIONS:

Weight:	290 g / 11.68 ozs
Length:	118 mm / 4.65 inches
Width:	28 mm / 1.10 inches
Height:	48 mm / 1.90 inches
Power supply:	12-32 V DC
No load current:	Approx. 70 mA
Torque:	1.60 Nm
Connector:	LEMO size 1 5-pin

Servo Motor M28VPT — The HEDÉN M28VPT is a vertical orientated lens servomotor for professional film-and Video/HD-cameras

- Together with the focus control box AE-3 and zoom control box AZ-3 this motor forms a high precision null seeking closed loop servo system
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- No tools needed for mounting
- Interchangeable snap-on gears with automatic lock action to be mounted on either side of the motor
- The M28VP is delivered with 4 snap-on gears, modules 0.8 - 0.6 - 0.5 - 0.4 and inserts for 19/15 mm and 5/8 inch rods
- In power-off-mode the motor gear is easily turned manu:
- Integrated adjustable bracket
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size
- Inserts for 0.5 inch rods (optional)
- 2 inch diameter snap-on gears (optional)



SPECIFICATIONS:

Weight:	383 g / 13.50 ozs
Length:	135 mm / 5.31 inches
Width:	28 mm / 1.10 inches
Height:	48 mm / 1.89 inches
Power supply:	12-24 V DC
No load current:	Approx. 100 mA
Torque:	Approx. 1.25 Nm
Connector:	LEMO size 1 7-pin

Servo Motor M28VT — The HEDÉN M28VT is a vertical oriented lens servo motor for professional film-and Video/HD cameras

- A high precision motor with tacho-generator
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- No tools needed for mounting
- Interchangeable snap-on gears with automatic lock action to be mounted on either side of the motor
- The M28VT is delivered with 4 snap-on gears, modules 0.8 – 0.6 – 0.5 – 0.4 and inserts for 19/15 mm and 5/8 inch rods.
- In power-off-mode the motor gear is easily turned manually
- Integrated adjustable bracket
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size
- Insert for 0.5 inch rods (optional)

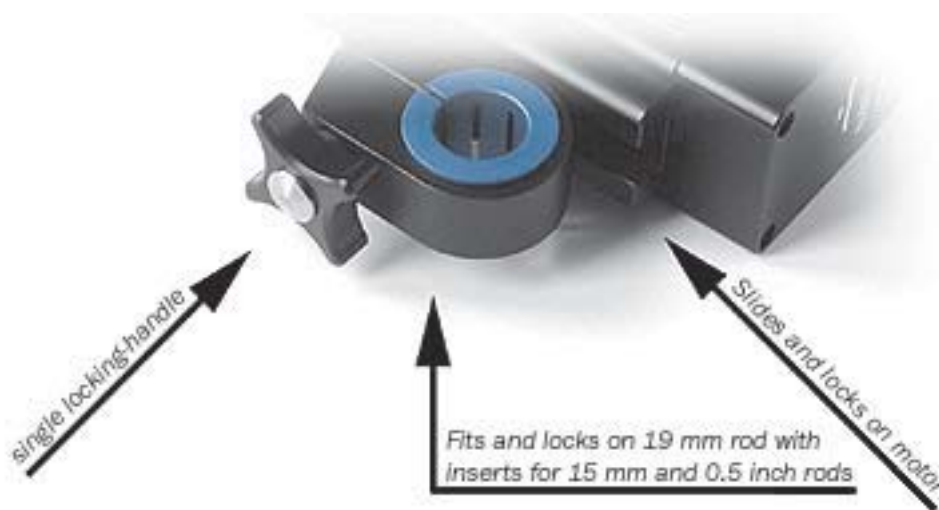
SPECIFICATIONS:

Weight:	348 g / 12.27 ozs
Length:	135 mm / 5.31 inches
Width:	28 mm / 1.10 inches
Height:	35 mm / 1.38 inches
Power supply:	12-32 V DC
No load current:	Approx. 100 mA
Torque:	1.30 Nm
Connector:	LEMO size 1 4-pin



Integrated adjustable bracket

The M28V-series motors features a unique sliding and rotating bracket that is integrated to the motor. With one single locking-handle you can easily mount the motor in a few seconds.



Inserts

The inserts can be fitted on M28VP motors,UM26 and UM26s brackets

SPECIFICATIONS:

Grey:	15 mm
Red:	Panavision std.
Blue:	0.5 inches



Servo Motor M32P — The HEDÉN M32P is a horizontal orientated lens servomotor for professional film-and Video/HD-cameras

- Together with appropriate control unit this motors forms a high precision null seeking closed loop servo system
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size

SPECIFICATIONS:

Weight: 306 g / 10.80 ozs
Length: 113 mm / 4.45 inches
Width: 49 mm / 1.93 inches
Body diameter: 32 mm / 1.26 inches
Power supply: Via control unit
No load current: Approx. 55 mA
Torque: Approx. 1.50 Nm
Connector: LEMO size 1 5-pin



Servo Motor M32PT — The HEDÉN M32PT is a horizontal orientated lens servomotor for professional film-and Video/HD-cameras

- Together with focus control box AE-3 and zoom control box AZ-3 this motor forms a high precision null seeking closed loop servo system.
- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size

SPECIFICATIONS:

Weight: 350 g / 12.34 ozs
Length: 129 mm / 5.08 inches
Body diameter: 32 mm / 1.26 inches
Width: 49 mm / 1.93 inches
Power supply: Via control unit
No load current: Approx. 55 mA
Torque: Approx. 1.60 Nm
Connector: LEMO size 1 7-pin



Servo Motor M32T — The HEDÉN M32T is a horizontal orientated lens servomotor for professional film-and Video/HD-cameras

- Patented two-stage friction drive planetary torque amplifier that provides several unique advantages
- A high precision motor with tachogenerator
- Negligible backlash
- High torque
- Extremely silent
- Lightweight and small size

SPECIFICATIONS:

Weight: 310 g / 10.80 ozs
Length: 129 mm / 4.45 inches
Body diameter: 32 mm / 1.26 inches
Power supply: 12–24 V DC
No load current: Approx. 110 mA
Torque: Approx. 1.60 Nm
Connector: LEMO size 1 4-pin



HEDÉN ENGINEERING

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FAQ's

Q: Whose makes of wireless control units can be used with HEDÉN motors?

A: The Chrosziel Aladdin, MagFox, Fox and Genio work extremely well. Seitz and BFD's also work well.

Q: What are the differences between P, T and PT motors?

A: The P (potentiometer) motor is a positional closed loop servo system which is normally used for focus and iris. Motor position corresponds to control knob position. The T (tacho) motor is used for speed regulation, normally used for zoom control. The PT motor is a focus, zoom and iris motor, to be used with AE-2, AE-3 and AZ-3 control boxes.

Q: The motor is not so powerful and fast as it used to be, what is wrong?

A: This problem can depend on many different factors. HEDÉN motors are very powerful and can handle the stiffest lenses without any problem. Check the lens for defects. Check the backlash between lens gear and motor gear is not too tight. If the problem persists the motor is probably damaged in some way. Send us the motor's serial number and we can tell you what type and how old the motor is. HEDÉN motors are extremely durable and should not break down even under the toughest conditions.

Q: Is it possible to have an optical encoder mounted on HEDÉN motors ?

A: Yes. All the motors with a P in the model number can be fitted with an optical encoder instead of the potentiometer. (Please note motors fitted with an optical encoder will not work with HEDÉN control units but may do with those made by other manufactures).

Q: I would like to buy a complete HEDÉN lens control system, which components should I use?

A: The AE-2 or AE-3 focus control unit and AZ-3 zoom control unit together with M26PT, M32PT or the M28VPT motor will be a perfect combination for superior lens control.

Q: What length of cable can be used between control box (AE-3 or AZ-3) and motor ?

A: At least 100 meters of cable can be used without any loss in motor performance.

Q: How quickly can a M26 motor be mounted?

A: Using the motor mount UM-26 or UM-26s with associated extension brackets the motor can be mounted in a few seconds.

Details and specifications subject to change without notice. E & O E

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