

FOS

technologies

FOS Helix Pro



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATION

Voltage: 100/240 Volt AC, 50/60 Hz.

Power Consumption: 450 Watt.

Light Source: 19x 15 Watt RGBW

Beam angle: 4 - 60°

Effect: Beam, wash and kaleidoscope type effects.

Control: Auto, Music, Master/Slave, DMX

DMX Channels:

- **Standard (21 Ch)**
- **Normal (23 Ch)**
- **Shapes (35 Ch)**
- **Extend (78 Ch)**
- **Extend RGBW (97 Ch)**
- **Full (92 Ch + 99 Ch)**

Protection Class: IP20 (for indoor use only)

Dimensions: 415 x 275 x 425 mm

Weight: 18,1 Kg

SAFETY WARNING

This product must be installed by a qualified professional. All maintenance must be carried out by a qualified electrician. A minimum distance of 0.5 m must be maintained between the equipment and a combustible surface. The product must always be operated in a well-ventilated area. DO NOT stare directly into the light source. Always disconnect the power before carrying out any maintenance. The earth must always be connected to the ground. Ensure that all parts of the equipment are kept clean and free of dust.

PROTECTION AGAINST SOLIDS AND WATER

Only for IP-rated fixtures

The protection level of a housing is set by applied standards. For classification there is used the IP-Code. It contains the declaration „IP“ and two following numbers. The first number characterizes the protection against harmful effects of solids, the second is rating the water protection. It is important to distinguish whether encapsulation and harmful effect! There can be housing that is not capsuled completely but still avoids harmful effect of solids or water.

PROTECTION EXAMPLES:

IP20: Protection against intruding objects >12,5mm „Finger protected “; No waterproofing. **TYPICAL PROTECTION FOR INDOOR USE FIXTURES**

IP33: Protection against intruding objects >2,5mm; Falling water within an angle of 60° has no harmful effect **TYPICAL PROTECTION OF LED-LIGHTS USING RECESSED POWERCON AND DMX SOCKET.** This protection is linked to the mounting position of the fixture and always refers to typical mounting situation like a Floor spot used standing on the ground.

IP54: complete protection against solids and low-pressure water from any side **THIS TYPE OF FIXTURES CAN BE USED UNDER NORMAL OUTDOOR CONDITIONS.**

IP65: shielded against dust and pressurized water from any side. **TYPICAL PROTECTION FOR OUTDOOR RATED EVENTFIXTURES USING WATERPROOFED POWER AND SIGNAL LINK.**

IP67: shielded against dust and protected for accidental briefly submerge. **PROTECTION AGAINST ACCIDENTIAL SUBMERGING ON TEMPORARY FLOODED AREA.**

TEMPORARY USE

Event equipment is designed for temporary use. This are typical purpose as concerts, festivals, theatre, clubs and disco use and referable venues. Long-term use, specially under outdoor conditions and fixed outdoor installation can bring damage in aging materials and affect the coated surface. Sealings as well as cables are made from rubber material and will age by long-term UV-emission as sunlight and should be checked frequently.

LIMITATIONS OF IP PROTECTION

IP-Rating doesn't mean unlimited outdoor use and protection against any kind of environmental influence! Especially sunlight and included UV will bring accelerated aging. Some fixtures need special

parts or processes to fit the rated IP-Protection, like mounting covers or caps or similar. Sealings and other plastic or rubber materials are aging parts. They must be checked frequently to ensure the protection and safety of the fixtures. Also specified torque of screws can affect protection!

Installation

Hanging: The fixture can be mounted in a hanging position using the supporting bracket. The bracket should be secured to the mounting truss or structure using a standard mounting clamp. Please note that when hanging the unit, a safety cable should also be used.

UPRIGHT: The fixture can be mounted in an upright or sitting position using the supporting brackets.



NOTE! If the signal cable is over 60 m between the DMX512 controller and fixture or between two fixtures, then a DMX signal amplifier is needed as well.

Menu Screen

You can easily navigate through menu's options with the four buttons under the screen. Navigating in the menu is simple! With the Up / Down buttons, you are moving through menu's choices, pressing Enter, you are entering the sub menu of the option you have chosen, with the Up / Down buttons you're moving through the sub menu's options, with Enter, you are confirming your choice. The fixture is equipped with a touch screen, making the navigation easier! The **FOS Helix Pro** offers the following options:

System Setup

Run mode:

- DMX512
- Sound
- Auto 1
- Auto 2
- Auto 3

Address: Set the DMX address

Channel Mode:

- 21 Ch
- 23 Ch
- 35 Ch
- 78 Ch
- 92 Ch
- 97 Ch
- 99 Ch

Invert Pan:

- On
- Off

Invert Tilt:

- On
- Off

Pan / Tilt Swap:

- On
- Off

Encoder:

- On
- Off

No Signal:

- Keep
- Clean

Screen Saver:

- On
- Off

Language:

- English
- Chinese

Load defaults

Manual Control

Motor Calibration

- Pan*
- Tilt*

- Zoom*
- Rotation*

*These options should be adjusted only by a technician!

System Test

System Info

Channel Modes

Standard (21 Ch)

1. **Red**
2. **Red Fine**
3. **Green**
4. **Green Fine**
5. **Blue**
6. **Blue Fine**
7. **White**
8. **White Fine**
9. **Linear CTO**
 - 0 – 9 Off
 - 10 – 255 Warm to Cold
10. **Color Macros:**
 - 0 – 9 Off
 - 10 – 255 Gradual Color Change
11. **Shutter:**
 - 0 – 3 Shutter Open
 - 4 – 203 Synchronous Strobe
 - 204 – 255 Random Strobe
12. **Dimmer**
13. **Dimmer Fine**
14. **Pan**
15. **Pan Fine**
16. **Tilt**
17. **Tilt Fine**
18. **No Function**
19. **Reset**
 - 0 – 250 No function

- **251 – 255** Reset after 5 seconds

20. Zoom

21. Lens Rotation:

- **0 – 127:** Lens index
- **128 – 191:** CW Rotation from fast to slow
- **192 – 255:** CCW Rotation from slow to fast

Normal (23Ch)

1. Pan

2. Pan Fine

3. Tilt

4. Tilt Fine

5. Pan / Tilt Speed

6. Zoom

7. Lens Rotation

- **0 – 127** Rotation Index
- **128 – 191** CW Rotation
- **192 – 255** CCW Rotation

8. Dimmer

9. Strobe:

- **0 – 3** Shutter Open
- **4 – 203** Synchronous Strobe
- **204 – 255** Random Strobe

10. Red

11. Green

12. Blue

13. White

14. Color Temperature

15. Color Macros

16. Static Effects (Different static effect every 5 DMX values)

17. Dynamic Effects (Different dynamic effect every 5 DMX values)

18. Dynamic Effects Speed:

- **0 – 127:** CW rotation from fast to slow
- **128 – 255:** CCW rotation from slow to fast

19. Background Red

20. Background Green

21. Background Blue

22. Background White

23. Reset:

- **0 – 250** No function
- **251 – 255** Reset

Shapes (35 Ch)

1. **Red**
2. **Red Fine**
3. **Green**
4. **Green Fine**
5. **Blue**
6. **Blue Fine**
7. **White**
8. **White Fine**
9. **Linear CTO**
10. **Color Macros**
11. **Shutter:**
 - **0 – 3** Shutter Open
 - **4 – 203** Synchronous Strobe
 - **204 – 255** Random Strobe
12. **Dimmer**
13. **Dimmer Fine**
14. **Pan**
15. **Pan Fine**
16. **Tilt**
17. **Tilt Fine**
18. **Function**
19. **Reset:**
 - **0 – 250** Off
 - **251 – 255** Reset
20. **Zoom**
21. **Lens Rotation:**
 - **0 – 127** Rotation Index
 - **128 – 191** CW Rotation
 - **192 – 255** CCW Rotation
22. **Shape Selection:**
23. **Shape Speed**
24. **Shape Fade:**
 - **0** Single Color
 - **1 – 255** Double Color fade (*With Shape Color channels 25, 26, 27, 28*)

25. Red (*Shape Color*)
26. Green (*Shape Color*)
27. Blue (*Shape Color*)
28. White (*Shape Color*)
29. Shape Dimmer
30. Background LED Dimmer
31. Shape Transition
32. Shape Offset
33. Shapes Shutter
34. Background Shutter
35. Background Select

Extend (78Ch)

1. Red
2. Red Fine
3. Green
4. Green Fine
5. Blue
6. Blue Fine
7. White
8. White Fine
9. Linear CTO
10. Color Macros:
11. Shutter:
 - 0 – 3 Shutter Open
 - 4 – 203 Synchronous Strobe
 - 204 – 255 Random Strobe
12. Dimmer
13. Dimmer Fine
14. Pan
15. Pan Fine
16. Tilt
17. Tilt Fine
18. Function
19. Reset:
 - 0 – 250 Off
 - 251 – 255 Reset
20. Zoom
21. Lens Rotation:
 - 0 – 127 Rotation Index

- **128 – 191** CW Rotation
- **192 – 255** CCW Rotation

22. LED 1 Red

23. LED 1 Green

24. LED 1 Blue

25. LED 2 Red

26. LED 2 Green

27. LED 2 Blue

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76. LED 19 Red

77. LED 19 Green

78. LED 19 Blue

Extended RGBW (97 Ch)

1. Red

2. Red Fine

3. Green

4. Green Fine

5. Blue

6. Blue Fine

7. White

8. White Fine

9. Linear CTO

10. Color Macros:

11. Shutter:

- **0 – 3** Shutter Open
- **4 – 203** Synchronous Strobe
- **204 – 255** Random Strobe

12. Dimmer

13. Dimmer Fine

14. Pan

15. Pan Fine

16. Tilt

17. Tilt Fine

18. Function

19. Reset:

- **0 – 250** Off
- **251 – 255** Reset

- 20. Zoom
- 21. Lens Rotation
- 22. LED 1 Red
- 23. LED 1 Green
- 24. LED 1 Blue
- 25. LED 2 White
- 26. LED 2 Red
- 27. LED 2 Green
- 28. LED 2 Blue
- 29. LED 2 White

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- 30. LED 19 Red
- 31. LED 19 Green
- 32. LED 19 Blue
- 33. LED 19 White

Full (92 Ch)

- 1. Red
- 2. Red Fine
- 3. Green
- 4. Green Fine
- 5. Blue
- 6. Blue Fine
- 7. White
- 8. White Fine
- 9. Linear CTO
 - 0 – 9 Off
 - 10 – 255 Warm to Cold
- 10. Color Macros:
 - 0 – 9 Off
 - 10 – 255 Gradual Color Change
- 11. Shutter:
 - 0 – 3 Shutter Open
 - 4 – 203 Synchronous Strobe
 - 204 – 255 Random Strobe
- 12. Dimmer

- 13. Dimmer Fine
- 14. Pan
- 15. Pan Fine
- 16. Tilt
- 17. Tilt Fine
- 18. Function
- 19. Reset:
 - 0 – 21 Off
 - 22 – 255 Reset
- 20. Zoom
- 21. Lens Rotation:
 - 0 – 127 Rotation Index
 - 128 – 191 CW Rotation
 - 192 – 255 CCW Rotation

- 22. Shape Selection
- 23. Shape Speed
- 24. Shape Fade
- 25. Shape R
- 26. Shape G
- 27. Shape B
- 28. Shape W
- 29. Shape Dimmer
- 30. Background Dimmer
- 31. Shape Transition
- 32. Shape Offset
- 33. Foreground Strobe
- 34. Background Strobe
- 35. Background Select
- 36. LED 1 Red
- 37. LED 1 Green
- 38. LED 1 Blue
- 39. LED 2 Red

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- 90. LED 19 Red
- 91. LED 19 Green
- 92. LED 19 Blue

Full (97 Ch)

1. **Red**
2. **Red Fine**
3. **Green**
4. **Green Fine**
5. **Blue**
6. **Blue Fine**
7. **White**
8. **White Fine**
9. **Linear CTO**
 - **0 – 9 Off**
 - **10 – 255 Warm to Cold**
10. **Color Macros:**
 - **0 – 9 Off**
 - **10 – 255 Gradual Color Change**
11. **Shutter:**
 - **0 – 3 Shutter Open**
 - **4 – 203 Synchronous Strobe**
 - **204 – 255 Random Strobe**
12. **Dimmer**
13. **Dimmer Fine**
14. **Pan**
15. **Pan Fine**
16. **Tilt**
17. **Tilt Fine**
18. **Function**
19. **Reset:**
 - **0 – 250 Off**
 - **251 – 255 Reset**
20. **Zoom**
21. **Lens Rotation:**
 - **0 – 127 Rotation Index**
 - **128 – 191 CW Rotation**
 - **192 – 255 CCW Rotation**
22. **LED 1 Red**
23. **LED 1 Green**
24. **LED 1 Blue**
25. **LED 1 White**
26. **LED 2 Red**

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- 94. LED 19 Red
- 95. LED 19 Green
- 96. LED 19 Blue
- 97. LED 19 White

Full (99 Ch)

- 1. Pan
- 2. Pan Fine
- 3. Tilt
- 4. Tilt Fine
- 5. Pan / Tilt Speed
- 6. Zoom
- 7. Lens Rotation
 - 0 – 127 Rotation Index
 - 128 – 191 CW Rotation
 - 192 – 255 CCW Rotation
- 8. Dimmer
- 9. Strobe:
 - 0 – 3 Shutter Open
 - 4 – 203 Synchronous Strobe
 - 204 – 255 Random Strobe
- 10. Red
- 11. Green
- 12. Blue
- 13. White
- 14. Color Temperature
- 15. Color Macros
- 16. Static Effects (Different static effect every 5 DMX values)
- 17. Dynamic Effects (Different dynamic effect every 5 DMX values)
- 18. Dynamic Effects Speed:
 - 0 – 127: CW rotation from fast to slow
 - 128 – 255: CCW rotation from slow to fast
- 19. Background Red
- 20. Background Green
- 21. Background Blue
- 22. Background White

23. Reset:

- **0 – 250** No function
- **251 – 255** Reset

24. LED 1 Red

25. LED 1 Green

26. LED 1 Blue

27. LED 1 White

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97. LED 19 Green

98. LED 19 Blue

99. LED 19 White

Photometric Data

Red	83700 Lux @ 2,5 m	2550 Lux @ 5 m	1150 Lux @ 7,5 m
Green	13800 Lux @ 2,5 m	3800 Lux @ 5 m	1780 Lux @ 7,5 m
Blue	15300 Lux @ 2,5 m	4460 Lux @ 5 m	1970 Lux @ 7,5 m
White	18000 Lux @ 2,5 m	5300 Lux @ 5 m	2320 Lux @ 7,5 m
RGBW	50400 Lux @ 2,5 m	15500 Lux @ 5 m	6680 Lux @ 7,5 m

General Information

Replacing a fuse:

Always disconnect the fixture from main power before replacing a fuse. Use only the appropriate fuse, with the same type and rating. A fuse with different rating, can damage the fixture in case of failure.

Risk of electric shock and / or fire:

The fixture must be earthed, supplied always with its nominal voltage and cleaned periodically from dust. For cleaning use only, a moist cloth. Never use liquids or force water. After cleaning, let the fixture dry before use.

