

FOS

technologies

FOS Helix Plus



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, DMX

DMX Channels:

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

Protection Class: IP20 (for indoor use only)

Width: 360 mm

Depth: 255 mm

Height: 460 mm (with zoom lens out)

Weight: 14,1 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 ACCIDENTAL 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 Plus** offers the following options:

Address: Set the DMX address

Run:

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

Test

- All

- Pan & Tilt
- LED

Set:

1. *Disp. Setting:*

- Shutoff Time
- Flip Display
- Key Lock
- Disp flash

2. *Pan Setting:*

- Normal
- Reverse

3. *Tilt Setting*

- Normal
- Reverse

4. *Language*

- English
- Chinese

5. *No DMX Signal*

- Clear (blackout)
- Keep (freeze to the last DMX values)

Info:

- Time Info
- Software Version

Reset: All Reset

Channel Modes

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 – 190** CW Rotation
 - **191 – 192** Rotation Stop
 - **193 – 255** CCW Rotation
8. **Dimmer**
9. **Strobe:**
 - **0 – 3** Shutter Closed
 - **4 – 103** Synchronous Strobe
 - **104 – 107** Shutter Open
 - **108 – 207** Pulse Effect
 - **208 – 212** Shutter Open
 - **213 – 251** Flash Effect
 - **252 – 255** Shutter Open
10. **Red**
11. **Green**
12. **Blue**
13. **White**
14. **Macro Colors**
15. **Pattern Selection**
 - **0 – 28** Off
 - **29 – 31** Pattern 1*
 - **32 – 34** Pattern 2*
 - **35 – 37** Pattern 3*
 - **38 – 40** Pattern 4*
 - **41 – 43** Pattern 5*
 - **44 – 43** Pattern 6*
 - **44 – 46** Pattern 7*
 - **47 – 52** Pattern 8*
 - **53 – 55** Custom Color Pattern 1
 - **56 – 58** Custom Color Pattern 2
 - **59 – 61** Custom Color Pattern 3
 - **62 – 64** Custom Color Pattern 4
 - **65 – 67** Custom Color Pattern 5
 - **68 – 70** Custom Color Pattern 6
 - **71 – 73** Custom Color Pattern 7
 - **74 – 76** Custom Color Pattern 8
 - **77 – 79** Custom Color Pattern 9
 - **80 – 82** Custom Color Pattern 10
 - **83 – 88** Off

- **89 – 91** Custom Color Pattern 11
- **92 – 94** Custom Color Pattern 12
- **95 – 97** Custom Color Pattern 13
- **98 – 100** Custom Color Pattern 14
- **101 – 103** Custom Color Pattern 15
- **104 – 107** Custom Color Pattern 16
- **108 – 109** Off
- **110 – 112** Custom Color Pattern 17
- **113 – 115** Off
- **116 – 118** Custom Color Pattern 18
- **119 – 121** Custom Color Pattern 19
- **121 – 124** Custom Color Pattern 20
- **125 – 127** Custom Color Pattern 21
- **128 – 130** Custom Color Pattern 22
- **131 – 133** Custom Color Pattern 23
- **134 – 136** Custom Color Pattern 24
- **137 – 139** Custom Color Pattern 25
- **140 – 142** Custom Color Pattern 26
- **143 – 145** Custom Color Pattern 27
- **146 – 148** Custom Color Pattern 28
- **149 – 151** Custom Color Pattern 29
- **152 – 154** Custom Color Pattern 30
- **155 – 157** Custom Color Pattern 31
- **158 – 160** Custom Color Pattern 32
- **161 – 163** Custom Color Pattern 33
- **164 – 166** Custom Color Pattern 34
- **167 – 169** Custom Color Pattern 35
- **170 – 172** Custom Color Pattern 36
- **173 – 175** Custom Color Pattern 37
- **176 – 178** Off
- **179 – 181** Custom Color Pattern 38
- **182 – 184** Custom Color Pattern 39
- **185 – 187** Custom Color Pattern 40 (Inner Ring)
- **188 – 190** Custom Color Pattern 41 (Outer Ring)
- **191 – 193** Off
- **194 – 196** Spiral Pattern
- **197 – 255** Off

16. Pattern Movement / Rotation:

- **0 – 63** Rotation Index
- **64 – 158** CW Rotation from fast to slow
- **159 – 160** Rotation Stop
- **161 – 255** CCW Rotation from slow to fast

17. Patterns fade

- 18. Red**
- 19. Green**
- 20. Blue**
- 21. White**

**The patterns are multicolored, when no RGBW color is selected*

***RGBW color selection for the patterns*

- 22. Background color dimmer
- 23. Reset
 - 0 – 126

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 Closed
 - 4 – 103 Synchronous Strobe
 - 104 – 107 Shutter Open
 - 108 – 207 Pulse Effect
 - 208 – 212 Shutter Open
 - 213 – 251 Flash Effect
 - 252 – 255 Shutter Open
- 12. Dimmer
- 13. Dimmer Fine
- 14. Pan
- 15. Pan Fine
- 16. Tilt
- 17. Tilt Fine

18. No Function

19. Reset

- **0 – 1** No function
- **2 – 255** Reset

20. Zoom

21. Lens Rotation

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

- **0 – 9** Off
- **10 – 255** Warm to Cold

10. Color Macros:

- **0 – 9** Off
- **10 – 255** Gradual Color Change

11. Shutter:

- **0 – 3** Shutter Closed
- **4 – 103** Synchronous Strobe
- **104 – 107** Shutter Open
- **108 – 207** Pulse Effect
- **208 – 212** Shutter Open
- **213 – 251** Flash Effect
- **252 – 255** Shutter Open

12. Dimmer

13. Dimmer Fine

14. Pan

15. Pan Fine

16. Tilt

17. Tilt Fine

18. Function

19. Reset:

- **0 – 20** Off
- **21 – 255** Reset

20. Zoom

21. Lens Rotation

22. Shape Selection:

- **0 – 7 Off**
- **8 – 14 Rings Selection**
- **15 - 70 Pixel Effects**
- **71 – 255 Off**

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 LED 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

- **0 – 9 Off**
- **10 – 255 Warm to Cold**

10. Color Macros:

- **0 – 9 Off**
- **10 – 255 Gradual Color Change**

11. Shutter:

- **0 – 3 Shutter Closed**

- **4 – 103** Synchronous Strobe
- **104 – 107** Shutter Open
- **108 – 207** Pulse Effect
- **208 – 212** Shutter Open
- **213 – 251** Flash Effect
- **252 – 255** Shutter Open

12. Dimmer

13. Dimmer Fine

14. Pan

15. Pan Fine

16. Tilt

17. Tilt Fine

18. Function

19. Reset:

- **0 – 20** Off
- **21 – 255** Reset

20. Zoom

21. Lens 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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⋮

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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

- **0 – 9 Off**
- **10 – 255 Warm to Cold**

10. Color Macros:

- **0 – 9 Off**
- **10 – 255 Gradual Color Change**

11. Shutter:

- **0 – 3 Shutter Closed**
- **4 – 103 Synchronous Strobe**
- **104 – 107 Shutter Open**
- **108 – 207 Pulse Effect**
- **208 – 212 Shutter Open**
- **213 – 251 Flash Effect**
- **252 – 255 Shutter Open**

12. Dimmer

13. Dimmer Fine

14. Pan

15. Pan Fine

16. Tilt

17. Tilt Fine

18. Function

19. Reset:

- **0 – 20 Off**
- **21 – 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

:

:

:

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 Closed**
 - **4 – 103 Synchronous Strobe**
 - **104 – 107 Shutter Open**
 - **108 – 207 Pulse Effect**
 - **208 – 212 Shutter Open**
 - **213 – 251 Flash Effect**
 - **252 – 255 Shutter Open**
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**
22. **Shape Selection**
23. **Shape Speed**
24. **Shape Fade**
 - **0 Single Color**
 - **1 – 255**

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

BIT	LEE REFERENCE	COLOUR	BIT VALUE			
			R	G	B	W
209-255	-	white	255	235	66	255
208	-	Dirty white	255	255	122	255
207	-	Alice blue	128	255	143	0
191-206	-	Congo blue	77	0	255	0
184-190	197	Dark Steel Blue	181	255	95	0
180-183	181	Deep lavender	255	168	64	0
179	174	Lilac Tint	255	199	49	0
175-178	170	Daylight Blue	82	214	90	0
174	169	Flame Red	255	46	2	v
172-173	165	Bastard Amber	255	181	28	0
168-171	164	Deep Orange	222	84	0	0
162-167	162	Pale Gold	253	171	26	0
157-161	158	Apricot	255	143	13	0
151-156	152	Bright Blue	0	255	87	0
149-150	147	Primary Green	77	255	0	0
147-148	141	Special lavender	219	197	79	0
146	139	Pale Lavender	255	197	61	0
145	137	Deep Golden	255	58	0	0
142-144	136	Amber	0	255	143	0
138-141	135	Medium Blue	255	53	36	0
136-137	132	Bright Pink	227	41	56	0
134-135	128	Mauve	84	255	13	0
131-133	126	Dark Green	206	255	0	0
129-130	124	Leaf Green	0	186	255	0
128	121	Dark Blue	74	255	82	0
127	119	Light Blue	206	255	56	0
126	118	Steel Blue	206	255	56	0
125	117	Med Blu Green	51	255	51	0
123-124	116	Peacock Blue	255	20	15	0
121-122	115	Magenta	255	109	33	0
120	113	Dark Pink	217	130	28	0
119	111	Middle Rose	255	138	31	0
118	110	Light Salmon	255	148	23	0
117	109	English Rose	255	141	31	0
115-116	108	Light Rose	255	122	0	0
114	107	Orange	255	166	0	0
113	105	Deep Amber	230	160	0	69
112	104	Straw	237	163	0	0
110-111	103	Light Amber	245	202	0	0
100-109	102	Spring Yellow	41	219	0	0
89-99	100	Dark yellow green	0	194	130	0

100-109	102	Spring Yellow	41	219	0	0
89-99	100	Dark yellow green	0	194	130	0
78-88	90	Just Blue	0	255	135	0
68-77	79	Sky Blue	243	117	133	199
62-67	68	Lavender	243	117	39	197
49-61	58	Light Lavender	255	107	0	130
46-48	52	Pink Carnation	255	87	0	107
45	39	Medium Pink	255	112	0	141
35-44	36	Light Pink	255	83	2	0
	35	Sunrise Red				

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.