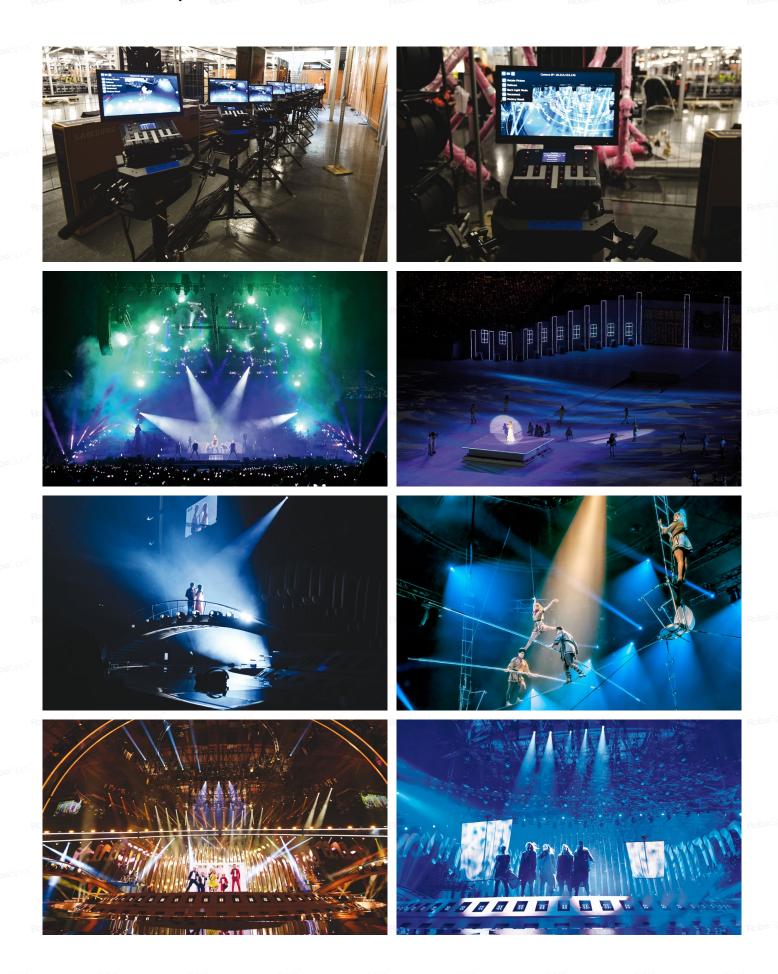
# Robo Spot MULTI DEVICE C O N T R O L



## **Robo**Spot<sup>™</sup>



## Robo Spot MULTI DEVICE C O N T R O L



Introc Ca RoboSpot BaseStation
Introducing the revolutionary RoboSpot™ follow spot system, a device that allows follow spot operators to remotely control up to 12 fixtures simultaneously without the safety concerns and impracticality of placing personnel at the top venues such as stadiums, indoor arenas, concert halls, theatres, TV and film sets. Stunning visual displays are now possible with as many as 12 perfectly synchronised fixtures following a performer across the stage.

With RoboSpot, it is no longer necessary to send operators into the rafters of venues to operate heavy and cumbersome traditional follow spots that take up valuable space in the world's live entertainment venues. Operators can now safely control multiple Robe fixtures from any location while reducing set-up times and operating costs.

The Robe RoboSpot system features a BaseStation with a large 15.6-inch HD touch screen for the operator to observe the performance from a "first person" viewpoint. A full range of ergonomic assignable hand controls gives control of all fixture features, such as pan, tilt, intensity, focus, colour, iris and many others, all fully customisable for ease of operation. The screen receives the live video feed from the RoboSpot MotionCamera or from the fixture-mounted RoboSpot camera, allowing the operator's commands to be instantly transferred to the luminaires via DMX control with no lag for perfect motion tracking across the stage.

Extra controls are available via the touch screen display, four programmable jog-wheels, and ten additional fully configurable buttons giving a truly customised user experience. The remote lighting desk still retains control of the internal features of the fixtures, such as light intensity and colour. All these features combine to make RoboSpot a highly innovative follow spot system.

RoboSpot may now be used purely on IP networks. Thanks to RDMNet implementation into Robe products, we take the existing capabilities of remote device management to the next level. This advanced protocol standardizes the behaviour and configuration over flat or routed network structures.

Device discovery, settings and operations, especially over long distances, can now be performed directly between the Robe RoboSpot and Robe fixtures, thus eliminating the need to add other equipment like splitters or nodes. Setting DMX addresses, Modes or Personality preferences remotely on Robe lights is now unified whether wired, wireless or networked.

By integrating RDMNet, we offer the most efficient and effective way of remotely managing their devices. With the ability to see changes made by other controllers, RDMNet provides a new level of flexibility and control previously unavailable.

RDMNet delivers unparalleled functionality, scalability, and ease of use for the RoboSpot system.

#### Main Features

- 15.6" monitor
- QVGA Robe touch screen with battery backup
- 4 control jog-wheels
- 10 preset buttons with a direct access of the pre-programmed
- Activation & Blackout buttons
- Pan & Tilt freeze buttons
- Manual movement control with position indication on the
- 2 faders mounted on the handles with direct control of the key features 0–100 % (for example dimmer and iris), assignable to any BMFL properties (focus, zoom, frost etc.)
- Manual movement control with position indication on the screen
- User setting of controllable attributes
- Saving and uploading of custom settings Compatible with the Robe BMFL™ FollowSpot / FollowSpot LT, BMFL™ Spot, BMFL™ Blade, BMFL™ WashBeam,
  BMFL™ WashBeam EV, ESPRITE®, ESPRITE® FS, iESPRITE®, FORTE®, FORTE® FS, iFORTE®, iFORTE® FS, iFORTE® LTX WB, iFORTE® LTX FS, TX1 PosiProfile™, T1 Profile™, T1 Profile FS™, T2 Profile™, T2 Profile FS™, DL7S Profile™, DL4S Profile™, iSpiiderX®, iPointe®, iPointe65®, MegaPointe®, Pointe®, SPOTE™, CUETE®, PAINTE® SPOT, Folite\*, SPOID , OCTICE\*, PRINTE\*, PRINTE\* SPOID , OCTICE\*, PRINTE\*, PRINT
- One RoboSpot can control up to 12 fixtures

#### Thermal Specification

- Maximum ambient temperature: 40 °C (104 °F) Minimum operating temperature: 0 °C (32 °F)

#### Control and Programming

- Display: QVGA Robe touch screen with battery backup)
- Movement control: manual

#### Electrical Specification and Connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: 15W
- Power in connector: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in/out: RJ45

#### Approvals

- CE Compliant
- cETLus Compliant

#### Video Inputs

□ Ethernet port in: RJ45

#### Mechanical specification

- Height: 606 mm (23.8")
- Width: 693 mm (27.3")
- Depth: 472 mm (18.6")
- Weight: 16.5 kg (36.4 lbs)

#### Included Items

- User Manual
- Tripod
- Adaptor for tripod
- Spigot
- Power cord including powerCON TRUE1 In connector

#### Riagina

Mounting positions: on tripod (supplied with the product)

#### Optional Accessories

- Monitor Shield and Note Holder for RoboSpot BaseStation: 10980409
- Monitor Shield and Note Holder II for RoboSpot BaseStation: 10980678
- Water-resistant RoboSpot system protection cover:
- RoboSpot MotionCamera: 10580301 Single Top Loader Case: 10120236

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RoboSpot™ BaseStation is a Trademark of Robe











































RoboSpot MotionCamera
The RoboSpot MotionCamera is a revolutionary moving head fixture featuring an integrated HD camera remotely controlled via DMX to pan, tilt, zoom and autofocus. Featuring a full HD camera with high light sensitivity capabilities down to 0.3 Lux illumination levels, the fixture provides a "first person view" for the follow spot operator to track the performer across the stage. Video signals are instantly transferred to the RoboSpot BaseStation via a high-speed Ethernet cat5 cable.



#### <u>Camera</u>

- Type: SNZ-6320
- Resolution: 1920x1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom 16x digital zoom
- Streaming: H.264, MPEG dual codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB)
- Minimum illumination: 0.3 Lux

#### Control and Programming

- Setting & Addressing: two-row LCD display & 4 control buttons
- Protocols: USITT DMX-512, RDM
- Wireless CRMX<sup>™</sup> technology from Lumen Radio: On request
- DMX Protocol modes: 1
- Control channels: 8
- Pan/Tilt resolution: 16 bit
- Zoom: 8 bit

#### Movement

- Tilt movement: 270°
- Pan movement: 540°
- Movement control: Standard and Speed
- Automatic Pan/Tilt position correction

#### Thermal Specification

- Maximum ambient temperature: 45 °C (113 °F) Maximum surface temperature: 55 °C (131 °F)
- Minimum operating temperature: -5 °C (23 °F)

#### Electrical Specification and Connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: 35 W
- Power in/out connector: Neutrik powerCON
- DMX and RDM data in/out: Locking 5-pin XLR
- Camera output: RJ45

#### <u>Approvals</u>

- CE Compliant
- □ cETLus Compliant (pending)

#### Mechanical specification

- Height: 386 mm (15.2")
- Width: 277 mm (10.9")
- Depth: 147 mm (5.8")
- Weight: 5.7 kg (12.6 lbs)

#### Included Items

- User Manual
- Omega Adaptor CL-regular
- Power cord including powerCON TRUE1 In connector

#### <u>Riggins</u>

- Mounting positions: Horizontally or vertically
- 1x Omega adaptor with 1/4-turn quick locks
- Unversal operating position
- Mounting points: 1 pair of 1/4-turn locking points
- Safety cable attachment point

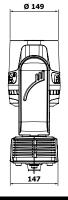
#### <u>Optional Accessories</u>

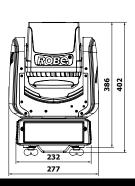
- Wireless DMX external module: 10980127
- Doughty Trigger Clamp: 17030386
- Safety wire 35 kg: 99011963
- Daisy Chain powerCON TRUE1 In/Out, EU, 2m, Indoor: 13052439
- Daisy Chain powerCON TRUE1 In/Out, EU, 5m, Indoor: 13052444
- Robin Spikie/MotionCamera Single Foam Shell: 20020321
- Single Top Loader Case Robin Spikie/MotionCamera: 10120193

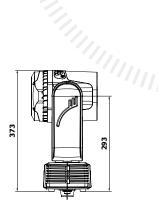
#### <u>Legal</u>

- RoboSpot™ MotionCamera is a Trademark of ROBE lighting s. r. o.
- $\mathsf{Robo}\mathsf{Spot}^{\scriptscriptstyle\mathsf{TM}}$  MotionCamera is patented by Robe lighting s. r. o. and is protected by one or more pending or issued

















































RoboSpot Camera
The RoboSpot Camera is a ready-to-mount device for Robe FollowSpot luminaires - BMFL FollowSpot, BMFL FollowSpot LT, T1 Profile FS and Esprite FS. Together with RoboSpot BaseStation they create a perfect package for remote follow spotting during the show. The high quality camera offers automatic adjustment for low light, a wide zoom range and provides a first-person-view for the follow spot operator. Video signal of the internal camera is transferred in real time to the RoboSpot BaseStation unit via Ethernet with minimal delay.



#### <u>Camera</u>

- Type: SNZ-6320
- Resolution: 1920x1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom 16x digital zoom
- Streaming: H.264, MPEG dual codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB) Minimum illumination: 0.3 Lux

#### Thermal Specification

- Maximum ambient temperature: 55 °C (131 °F) Minimum operating temperature: -10 °C (14 °F)

#### Electrical Specification and Connections

- Input voltage: 12V DC, PoE (IEEE802.3af class 3)
- Power consumption: max. 9 W (12V DC) / max. 10 W (PoE)
- Camera output: RJ45

#### Mechanical specification

- □ Height: 59.9 mm (2.36")
- Width: 72 mm (2.83")
- Depth: 135.4 mm (5.33")
- Weight: 0.54 kg (1.19 lbs)

#### <u>.egal</u>

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#### BMFL™ FollowSpot

Created specifically for follow spot operation, this custom modified version of BMFL comes with specific features to provide both motorised movement and manual operation with follow spot handles. Based on the powerful BMFL WashBeam it blasts beams of extra bright output and has an abundance of great features.

The BMFL FollowSpot takes advantage of its wide 160 mm front lens and a high CRI 1700W lamp. With a custom light source designed for Robe it produces an astounding 251.000 lux at 5 metres and has a wide zoom range of 5° to 45° with precise focusing.

Manually or remotely controllable features include smooth color mixing and CTO flags, two color wheels, multiple variable frost filters, focus, zoom and quick pulsing iris.

Follow spot operation can be extended by using LightMaster handles - an optional accessory. The BMFL FollowSpot is pre-wired for installation of the digital camera on the head and is connected with the new RoboSpot base station for off-stage follow spot operation.

#### Source

- Light source type: Compact short-arc metal halide lamp
- Base: PGJX28
- Approved model: OSRAM Lok-it! HTI 1700/PS
- Lifetime: 750 hours @ 1700 W / 1500 W / Ouiet mode
- Colour temperature: 6.000 K
- Control: Automatic and remote on/off
- Ballast: Electronic

#### Optical System

- Robe's proprietary optical design
- High efficiency zoom optical system, ratio 9:1
- Zoom range: 5°-45°
- Output lens diameter: 160 mm
- Dichroic glass reflector for maximising the light efficiency
- High efficient component optics
- Fixture total lumen output:
  - 39.770 lm @ 1700 W - 36.985 lm @ 1500 W
- 32.610 lm @ Quiet mode
- Brightness: 251.000 lx @ 5 m

#### Dynamic Effects

- Cvan: 0 -100 %
- Magenta: 0-100 %
- Yellow: 0-100 % Variable CTO: 2.700 - 6.000 K
- Colour Wheel 1: 6 fixed dichroic colours: deep red, deep blue,
- orange, green, magenta, congo blue + white Colour Wheel 2: 6 replaceable "SLOT&LOCK" dichroic
- colours: pink, lavender, laser green, 9000 K CTB, minus half and minus green + white
- Iris: Motorized, stepless, pulse effects up to 3 Hz Frost: Variable Light, Medium plus repleceable Heavy
- (two another frosts included)
- Motorized zoom and focus
- Shutter: Separate dual blade system, variable strobe effect up to 10 Hz, full black out
- Dimmer: Optimized dual blade system for exceptional smooth dimmina

#### Control and Programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2) Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser
- for easy fault finding Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- Web serve
- Wireless  $\mathsf{CRMX}^{\mathsf{TM}}$  technology fromLumen Radio: On request
- DMX Protocol modes: 2
- Control channels: 33, 27
- Pan/Tilt resolution: 16 bit CMY & CTO: 8 bit
- Iris: 8 or 16 bit
- Frost: 8 bit
- Zoom: 8 or 16 bit
- Focus: 8 or 16 bit
- Dimmer: 8 or 16 bit

#### <u>Movement</u>

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed Controllable speed of Pan/Tilt movement
- EMS™- Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- Automatic Pan/Tilt position correction

#### Thermal Specification

- Maximum ambient temperature: 45 °C (113 °F)
- Maximum surface temperature: 170 °C (338 °F)
- Minimum operating temperature: -5 °C (23 °F)
- Total heat dissipation: max. 5800 BTU/h (calculated)

#### Electrical Specification and Connections

- Power supply: Electronic auto-ranging Input voltage range: 100-240 V, 50/60 Hz Power consumption: 2.000 W at 230 V / 50 Hz
- Power in connector: Neutrik powerCON
- DMX and RDM data in/out: Locking 5-pin XLR
- Ethernet port in: RJ45

#### <u>Approvals</u>

- CF Compliant
- cETLus Compliant

#### <u>Mechanical specification</u>

- ☐ Height: 813 mm (32") head in vertical position
- Width: 483 mm (19")
- Depth: 335 mm (13.2")
- Weight: 35 kg (77.2 lbs) Ingress protection rating: IP20

#### Rigging

- Mounting positions: 0°, 32°, 90°
- Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks Safety cable attachment point
- Pan and Tilt transport locks

#### Included Items

- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON In connector
- Frost filter set: 15050007

#### <u>Optional Accessories</u>

- Lamp Osram Lok-it HTI 1700/PS: 14080049
- BMFL Handles 2 pcs in box: 10980233
- BMFL Side Handle: 10980396
- RoboSpot Camera: 10080311
- Doughty Trigger Clamp: 17030386
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120226
- Dual Top Loader Case: 10120227

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- BMFL™ FollowSpot is patented by Robe lighting s. r. o. and protected by one or more pending or issued patents

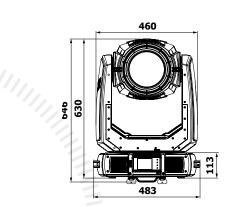














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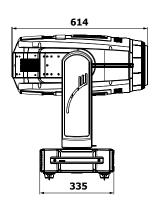
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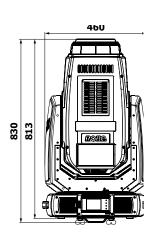
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#### BMFL™ FollowSpot LT

The of Further adding to the ground breaking RoboSpot system, the FollowSpot LT is designed for the larger venue that requires a longer throw distance, tighter beam and greater output power.

The LT is the same size and weight as the standard BMFL FollowSpot, which is substantially smaller than other products of similar power. The proprietary optical design provides a 8:1 zoom ratio (1° to 8°) and an output exceeding 455.000 lux at 5 metres.

Like the standard BMFL FollowSpot, the LT can be operated as a manual, stand-alone follow spot using the Robe LightMaster-Side and LightMaster-Rear control kits. Similarly, the LT can be operated remotely using the Robe RoboSpot MDC remote follow spot system and is pre-wired for the Digital Camera

Packed with all the features you would expect from a BMFL series product, including, imperceptible colour mixing, fixed colour filters, 6.000 k native colour temperature, Cri>92, Variable CTO to 2.700 & CTB to 9.000 K, fixed & variable frost filters, focus, zoom and a fast iris.



- Light source type: Compact short-arc metal halide lamp
- Base: PGJX28
- Approved model: OSRAM Lok-it! HTI 1700/PS
- Lifetime: 750 hours @ 1700 W / 1500 W / Quiet mode
- Colour temperature: 6.000 K
- Control: Automatic and remote on/off
- Ballast: Electronic

- Robe's proprietary optical design
- High efficiency zoom optical system, ratio 8:1
- Zoom range: 3,5°-8° optical; 1°-8° optical + iris
- Output lens diameter: 180 mm
- Dichroic glass reflector for maximising the light efficiency
- High efficient component optics
- Fixture total lumen output:
  - 34.600 lm @ 1700 W 32.180 lm @ 1500 W
- 28.370 lm @ 1200 W (Quiet mode)
- Brightness: 455.000 lx @ 5 m

- Cyan: 0-100%
- Magenta: 0-100%
- Yellow: 0-100%
- Variable CTO: 2.700 6.000 K Colour Wheel 1: 6 fixed dichroic colours: deep red, deep blue,
- orange, green, magenta, congo blue + white Colour Wheel 2: 6 replaceable "SLOT&LOCK" dichroic
- colours: pink, lavender, laser green, 9.000 K CTB, minus half and minus green + white
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- Frost: Variable Light, Medium plus repleceable Heavy (two another frosts included)
- Motorized zoom and focus
- Shutter: Separate dual blade system, variable strobe effect up to 10 Hz, full black out
- Dimmer: Optimized dual blade system for exceptional smooth dimmina

#### ontrol and Programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser for easy fault finding
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- Web server
- Wireless CRMX<sup>™</sup> technology from Lumen Radio: On request
- DMX Protocol modes: 2 Control channels: 33, 27
- Pan/Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- Iris: 8 or 16 bit
- Frost: 8 bit
- Zoom: 8 or 16 bit Focus: 8 or 16 bit
- Dimmer: 8 or 16 bit

#### <u>Movement</u>

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed
- Controllable speed of Pan/Tilt movement
- EMS™- Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patent pending)
- Automatic Pan/Tilt position correction

- Maximum ambient temperature: 45 °C (113 °F)
- Maximum surface temperature: 170 °C (338 °F)
- Minimum operating temperature: -5 °C (23 °F)
- Total heat dissipation: max. 5800 BTU/h (calculated)

- Power supply: Electronic auto-ranging Input voltage range: 200-240 V, 50/60 Hz
- Power consumption: 2.000 W at 230 V / 50 Hz
- Power in connector: Neutrik powerCON
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in: RJ45

- CF Compliant
- cETLus Compliant

- Height: 813 mm (32") head in vertical position
- Width: 483 mm (19") Depth: 335 mm (13.2")
- Weight: 38.1 kg (83.99 lbs)
- Ingress protection rating: IP20

- Mounting positions: 0°, 32°, 90° Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point
- Pan and Tilt transport locks

- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON In connector

#### Optional Accessories

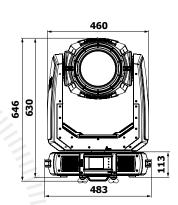
- Lamp Osram Lok-it HTI 1700/PS: 14080049
- BMFL Handles 2 pcs in box: 10980233
- BMFL Side Handle: 10980396
- RoboSpot Camera: 10080311
- Doughty Trigger Clamp: 17030386
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120226
- Dual Top Loader Case: 10120227

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- BMFL™ FollowSpot LT is patented by Robe lighting s. r. o. and protected by one or more pending or issued patents

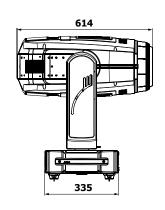




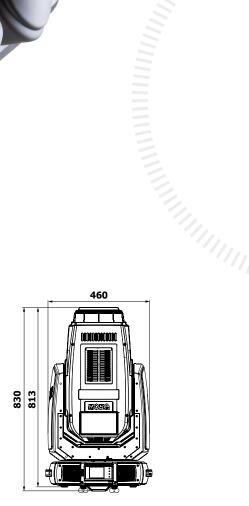














#### T1 Profile FS™

T1. The new ONE and only fixture you need for theatre, television and touring and now with the option to be connected to the Robe innovative RoboSpot system.

The T1 Profile FollowSpot is equipped with the digital camera on the head and can be connected with the RoboSpot BaseStation for off-stage follow spot operation.

Specifically designed to fulfil the challenging requirements of these diverse applications within one comprehensive fixture. The new revolutionary MSL™ (Multi-Spectral Light) LED engine's output reaches 12.600 lumens. It's impressively bright. T1 Profile is full of theatrical subtlety. With CMY colour control, DataSwatch™ filters containing a selection of pre-programmed colours via the new generation RCC™ (Robe Colour Calibration) algorithm and a wide ranging 2.700K to 8.000K CCT control, all variations of colour are possible for even the most demanding designers. The precise needs of theatrical dimming are catered to with our super smooth Robe 18-bit dimming system. In addition, the high CRI of 95+ provides natural skin tones.

For television work, we have included a plus and minus green channel and Cpulse™ special flicker-free management for all vision systems such as HD and UHD cameras. All this combined with our crisp framing shutter system, full zoom range of 0,5° and 10° variable frosts, specially designed breakup and aerial gobos, animation wheel and prism, gives you total control of your designs in theatre, television and touring. You need only ONE. T1.



- Light source type: MSL™ 550 W Multi-Spectral LED engine (Patented)
- LED life expectancy: min. 40.000 hours
- Colour rendition: CRI: 95, CRI R9: 91, TM30-18 Rf: 93, TM30-18 Rg: 103, TLCI: 94 Typical lumen maintenance: L70/B50 @ 40.000 hours
- Light source warranty: 3 years or 20.000 hours

#### Optical System

- Robe's proprietary optical design High - efficiency zoom optical system, ratio 7:1
- Zoom range: 7°-49°, covers favoured field angles of most Theatre and TV lights
- Fixture total lumen output: 12.600 lm (integrating sphere) 10.075 lm (goniophotometer)
- Output lens diameter: 140 mm

#### Dynamic Effects

- Factory calibrated whites and colours via the new RCC™ (Robe Colour Calibration) system, automatic or on-call selfrecalibration of the LED engine without the use of any external tool (Patent pending)
- Colour mixing: additive with CMY control mode
- Variable CTO: 2.700 K–8.000 K DataSwatch™ filters: pre-programmed 237 colours and tones including most used whites 2.700 K, 3.200 K, 4.200 K, 5.600 K and 8.000 K
- Tungsten lamp effect: 750 W, 1.000 W, 1.200 W, 2.000 W, 2.500 W lamp emulation
- + Green correction function
- Adjustable CRI from 80 to 95+ MCE $^{\text{TM}}$  Split and multicoloured effects created directly from the LED engine (Patented)
- Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + -  $60^{\circ}$
- Rotating gobo wheel: 7 rotating, indexable and replaceable breakup and aerial gobos + open, all gobos specially selected for theatrical and TV productions
- Animation wheel: Aluminium animation wheel, used alone or in combination with gobos, rotating in both directions at variable speed Prism: 6 - facet 8° prism rotating in both directions at variable
- Iris: Motorized, stepless, pulse effects up to 3 Hz Frosts: MagFrost™ magnetic paddle fast change system
- providing exchangeable frosts containing as standard a very light 0.5° for instant softening of the projected gobo or framing shutters, and a medium  $10^\circ$  for even wash, both specifically selected for theatre and TV use
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz
- Pre-programmed random strobe & pulse effects
- L3™ (Low Light Linearity) Imperceptible 18 bit dimming for ultra smooth fade to black
- Extremely quiet operation suitable for all types of production in Theatre and TV
- Cpulse™ special flicker free management for HD and UHD
- ${\sf AirLOC^{\scriptscriptstyle\mathsf{TM}}} \ (\mathsf{Less} \ \mathsf{Optical} \ \mathsf{Cleaning}) \ \mathsf{technology} \ \mathsf{greatly} \ \mathsf{reduces}$ the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

#### <u>Control and Programming</u>

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser for easy fault finding

- □ Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- Robe Ethernet Access Portal
- Epass™- Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity - on request
- Wireless CRMX<sup>™</sup> technology from Lumen Radio: On request
- DMX Protocol modes: 3
- Control channels: 49, 33, 53
- Pan/Tilt resolution: 16 bit
- Colour mixing: 8 or 16 bit (internal 18 bit)
- Variable CTO: 8 bit
- Adjustable CRI: 8 bit
- + Green correction: 8 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 8 or 16 bit
- Animation wheel: 8 bit
- Prism indexing & rotation: 8 bit
- Iris: 8 or 16 bit
- Frost: 8 bit 700m: 8 or 16 hit
- Focus: 8 or 16 bit
- Dimmer: 8 or 16 bit (internal 18 bit)

#### Movement

- Pan movement: 540°
- Tilt movement: 280°
- Movement control: Standard and Speed
- Automatic Pan/Tilt position correction
- EMS™- Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- MAPS™ Motionless absolute positioning system for Pan & Tilt (Patented)

#### <u>Rotating gobos</u>

- 7x rotating glass gobos
- Image diameter: 25.0 mm
- Outside diameter: 26.8 mm
- Thickness: 1.1 mm
- Max. thickness: 4 mm
- High temperature borofloat or better glass "SLOT&LOCK" system for easy replacement of gobos

#### Effect Wheel

- Single animation wheel
- Material: Aluminium
- Can be used alone or in combination with rotating gobos
- Rotating in both directions, variable speed

#### Framing Shutters

#### vste<u>m</u>

- Patented Plano4™ framing shutters module
- Blades: 4 Blades, each with separate movement and rotation control
- Movement: smooth with variable speed
- Smooth and very precise motion of framing shutters
- Rotation: +- 60° of the complete framing system

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom
- 32x digital zoom
- Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Minimum illumination: 0.05 Lux

#### Thermal Specification

- Maximum ambient temperature: 45 °C (113 °F)
- Maximum surface temperature: 70 °C (158 °F)
- Minimum operating temperature: -5°C (23°F)

#### Noise Levels

- Sound pressure level: 24 dB(A) at 1 m (quiet mode)
  - 30 dB(A) at 1 m (auto mode)
- ☐ Sound power level: 32 dB(A) (quiet mode) 38 dB(A) (auto mode)

#### Electrical Specification Connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50 / 60 Hz
- Power consumption: max. 750 W at 230 V / 50 Hz (all LEDs On)
- Power in connector: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in: RJ4

#### <u>Approvals</u>

- CE Compliant
- cETLus Compliant (Patent pending)

#### Mechanical specification

- Height: 726 mm (28.6") head in vertical position
- Width: 400 mm (15.7")
  Depth: 258 mm (10.2") head in horizontal position
- Weight: 25.5 kg (56.2 lbs)
- Ingress protection rating: IP20

#### Rigging

- Mounting positions: Horizontally or vertically
- Universal operating position Mounting points: 2 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point Pan and Tilt transport locks

#### Included Items

- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON TRUE1 In connector
- RoboSpot Camera
- Gel frame adaptor

#### Optional Accessories

- 7.5" Gel Frame: 10980443 (compatible with standard
- adaptor 10980440 only)
  Gel frame adaptor: T1 with Top Hat 10980474
- Top hat: 10980451 (compatible with optional adaptor
- 10980474 only)
- Doughty Trigger Clamp: 17030386 Frost 0.5° (exchange) assembled: 10980583
- Frost 1° (exchange) assembled: 10980578
- Frost 5° (exchange) assembled: 10980573 Frost 10° (exchange) assembled: 10980497
- Frost 20° (exchange) assembled: 10980574 Frost 30° (exchange) assembled: 10980584 Hot-Spot lens in gobo holder: 10980483
- Safety wire 36 kg: 99011963 Single Top Loader Case: 10120244-03
- Dual Top Loader Case: 10120245-03 Foam Shell: 20020340-01

- T1 Profile  $FS^{TM}$  is the Trademarks of Robe lighting s. r. o. T1 Profile  $FS^{TM}$  is patented by Robe lighting s. r. o. an
- lighting s. r. o. and protected by one or more pending or issued patents

































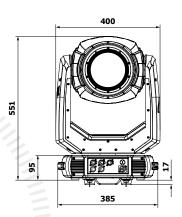




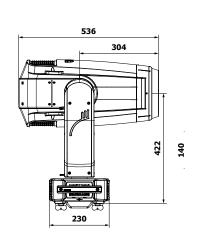




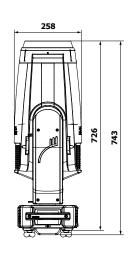




















































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#### T2 Profile FS™

T2. Taking Multispectral perfection even further! While simultaneously maintaining the absolute colour finesse of Robe's phenomenally successful T1 series, featuring the MSL™ (Multi-Spectral) LED engine, our T2 Profile™ provides an enhanced output of more than 22.000 lumens, measured at the front lens, via its 850W MSL™ source, to throw their beautiful light even further than before. With a zoom range of 5–55°, T2 Profile™ is ideally suited to its longer-throw role in theatre, television, and touring.

> T2 Profile™ is again full of theatrical subtlety. With CMY colour control, DataSwatch™ filters containing a selection of pre-programmed colours via our renowned RCC™ (Robe Colour Calibration) algorithm and a wide-ranging 2.700K to 8.000K CCT control, all variations of colour are possible. With absolutely no difference in colour produced by T1 and T2 platforms, you can use them together with confidence to provide consistent colour across your lighting rig, perfect for even the most demanding designers.

The precise needs of theatrical dimming are catered for with our super-smooth L3™ dimming system producing imperceptible fades to black. The high CRI of 95+ assures natural rendition of all skin tones. Specifically, for television work, we have included a plus and minus green channel and the Cpulse™ flicker-free management system for all vision systems including HD and UHD cameras, all controllable directly from your console. All this combined with our acclaimed four plane shuttering system, two rotating gobo wheels, an animation wheel, two rotating prisms, changeable 1° and 5° variable frosts with full zoom range coverage, gives you total control over your designs.

2 utilises our innovative reduces the level of the T2 Pr Designed to operate in noise-sensitive environments such as television studios, theatres, and houses of worship, T2 utilises our innovative AirLOC™ system. Meaning "Less Optical Cleaning," this technology not only aids noise reduction but also dramatically reduces the level of airborne particles drawn over the optics, keeping them in pristine condition for far longer.

The T2 Profile FS™ is equipped with the digital camera on its head and can be connected with the RoboSpot™ BaseStation for off-stage follow spot operation.

#### <u>Source</u>

- Light source type: MSL™ 850W Multi-Spectral LED engine (Patented)
- LED life expectancy: min. 40.000 hours

- Colour rendition: CRI: 95, CRI R9: 91, TM30-18 Rf: 93, TM30-18 Rg: 103, TLCI: 94
- Typical lumen maintenance: L70/B50 @ 40.000 hours
- Light source warranty: 3 years or 20.000 hours

#### <u>ptical System</u>

- Robe's proprietary optical design
- High-efficiency zoom optical system, ratio 11:1
- Zoom range: 5° 55°, covers favoured field angles of most Theatre and TV lights
- Fixture total lumen output: 22.000 lm (integrating sphere) 17.600 lm (goniophotometer)
- Output lens diameter: 180 mm

#### <u>ynamic Effects and</u>

- Factory calibrated whites and colours via the new RCC™ (Robe Colour Calibration) system, automatic or on-call self-re-calibration of the LED engine without the use of any external tool (Patent pending) Colour mixing: CMY/RGB or RGBAL
- White light: Variable CCT 2.700K 8.000K
- DataSwatch™ filters: pre-programmed 237 colours and tones including most used whites 2.700K, 3.200K, 4.200K, 5.600K and 8.000K
- Tungsten lamp effect: 750W, 1.000W, 1.200W, 2.000W, 2.500W lamp emulation for whites from 2.700K to 4.200K (red shift and thermal delay)
- Green correction function
- Adjustable CRI from 80 to 95+
  MCE™ Split and multicoloured effects created directly from the LED engine (Patented)
- Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + -  $60^{\circ}$
- Rotating gobo wheel: 6 rotating, indexable and replaceable breakup and aerial gobos + open, all gobos specially selected for theatrical and TV productions, patented slot & lock system
- Static gobo wheel: 8 static, replaceable breakup gobos + open, all gobos specially selected for theatrical and TV productions, patented slot & lock system
- Animation wheel: Aluminium animation wheel, used alone or in combination with gobos, rotating in both directions at variable speed
- MLP<sup>™</sup> Patented Multi-Level Prisms allow multiple prisms to be "stacked" while retaining individual speed and direction control. With variable shape and size it creates unlimited dynamic, multi-level flower and beam effects.
  - Prism 1: Independent 6 facet linear prism rotating in both directions at variable speed
  - Prism 2: Independent 6 facet circular prism rotating in both directions at variable speed
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- MagFrost™ magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing shutters, and a medium 5° for even wash, both specifically selected for theatre and TV use

- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz, pre-programmed random strobe & pulse effects
- High resolution electronic dimming: 0–100%
- $L3^{\text{TM}}$  (Low Light Linearity) Imperceptible 18 bit
- dimming for ultra smooth fade to black Extremely quiet operation suitable for all types
- of production in Theatre and TV  $\mathsf{Cpulse}^{\scriptscriptstyle\mathsf{TM}}$  - special flicker-free management for HD and
- UHD cameras, ready for 8K and 16K AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical
- elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

#### ontrol and Programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, built-in analyser for easy fault finding, NFC app controller
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- REAP™ Robe Ethernet Access Portal
- Epass<sup>™</sup>- Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity
- Wireless CRMX<sup>™</sup> technology from LumenRadio on request
- DMX Protocol modes: 3 Control channels: 52, 36, 56
- Pan & Tilt resolution: 16 bit
- Colour mixing: 8 or 16 bit (internal 18 bit) Variable CCT: 8 bit
- Adjustable CRI: 8 bit
- + Green correction: 8 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 8 or 16 bit
- Animation wheel: 8 bit
- Prism indexing & rotation: 8 bit
- Iris: 8 or 16 bit
- Frost: 8 bit 700m: 8 or 16 bit
- Focus: 8 or 16 bit
- Dimmer: 8 or 16 bit (internal 18 bit)

#### <u>Movement</u>

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed Automatic Pan & Tilt position correction
- EMS™ Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or
- vibration (Patented) MAPS™ - Motionless absolute positioning system for Pan & Tilt (Patented) - on request

#### Static Gobos

- 8x rotating glass gobos
- Image diameter: 25 mm
- Outside diameter: 30.8 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass Slot & lock system for easy replacement of gobos

#### Rotating Gobos

- 6x rotating glass gobos
- Image diameter: 25 mm
- Outside diameter: 30.8 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

#### ffect Wheel

- Single animation wheel
- Material: Aluminium
- Diameter: 121 mm
- Can be used alone or in combination with rotating gobos
- Rotating in both directions at variable speed

#### <u>raming Shutters System</u>

- Patented Plano4™ framing shutters module
- Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: smooth with variable speed
- Smooth and very precise motion of framing shutters
- Rotation: +- 60° of the complete framing system

#### <u>hermal Specification</u>

- Maximum ambient temperature: 45 °C (113 °F)
- Maximum surface temperature: 70 °C (158 °F)
- Maximum operating temperature: -5 °C (23 °F)

  Total heat dissipation: max. 3.924 BTU/h (calculated)

- Sound pressure level: 23 dB(A) at 1 m (quiet mode)
  - 29 dB(A) at 1 m (auto mode)
- Sound power level: 31 dB(A) (quiet mode) 37 dB(A) (auto mode

#### Electrical Specification and Connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100–240 V, 50 / 60 Hz
- Power consumption: max. 1.150W
- Power connector in: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in/out: RJ45 for Embedded Epass<sup>TN</sup>
- switch 10/100 Mbps
- Ethernet port out: RJ45 T2 Profile FS, camera video output

#### <u>Approvals</u>

- CE Compliant
- cETLus Compliant

#### Mechanical Specification

- Height: 802 mm (31.6") head in vertical position
- Width: 483 mm (19")
- Depth: 335 mm (13.2") head in vertical position
- Weight: T2 Profile™: 36.9 kg (81.4 lbs)
- T2 Profile FS™: 37.5 kg (82.67 lbs) Ingress protection rating: IP20

















































#### Rigging

- Mounting positions: 0°, 32°, 90° Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks Safety cable attachment point
- Pan & Tilt transport locks

#### <u>Included Items</u>

- □ User Manual
- Omega Adaptor CL-regular 2 pcs: 10980033 Power cord including powerCON TRUE1 In connector Gel frame adaptor: 99016721
- RoboSpot Camera for T2 Profile FS™

#### Camera (T2 Profile FS)

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom
- 32x digital zoom Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Minimum illumination: 0.05 Lux

#### Optional Accessories

- 7.5" Gel Frame: 10980561
- Top hat: 10980591
- Frost 0.5° (exchange) assembled: 10980581

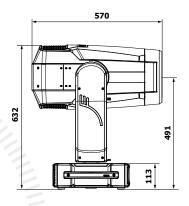
- Frost 1° (exchange) assembled: 10980564 Frost 5° (exchange) assembled: 10980565 Frost 10° (exchange) assembled: 10980556
- Frost 20° (exchange) assembled: 10980577

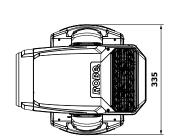
- Frost 30° (exchange) assembled: 10980582 Doughty Trigger Clamp: 17030386 Omega Adaptor Tall CL-regular 2 pcs in box: 10980501
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120271 Dual Top Loader Case: 10120272
- Foam Shell: 20020396

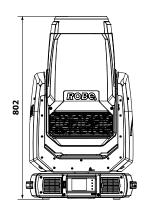
#### <u>Legal</u>

- T2 Profile<sup>™</sup> and T2 Profile FS<sup>™</sup> are Trademarks
- of Robe lighting s. r. o. T2 Profile™ and T2 Profile FS™ are patented by Robe lighting s. r. o. and protected by one or more pending
  - or issued patents























































#### ESPRITE® FS

of with the state of the state The all-new ESPRITE® FS - LED Automated Luminaire - has a newly developed, fast-change, low-cost, transferable light engine ingeniously solving the problem of performance longevity for those preferring the higher brightness of white source LEDs as an obvious replacement for their aging stock of discharge workhorses.

The ESPRITE® FollowSpot is equipped with the digital camera on the head and can be connected with the RoboSpot BaseStation for off-stage follow spot operation.

The self-referencing, data capturing WTE™ 650 W (White Transferable Engine) LED source, designed, developed and manufactured within our own factory, allows for rapid and economical "lamplike" exchange to give the fixture a life well beyond those of non-user replaceable LED sources. Performance has not been compromised with the 27.000 lm fixture output producing a piercing 85.000 lux at 5 m. This is enhanced by our legendary precision optics to produce crystal clear white light. The comprehensive feature set includes Flat field CMY mixing, variable CTO, two fast colour wheels, rotating and static gobo wheels, 6-facet rotating prism, 1° soft edge and 5° even wash frosts, an animation wheel and spectacular multi-colour effects. Quick, accurate, easy framing is provided via our patented fast framing shutter module with individual blade control and +/-60° rotation capability for extra fine control.

ESPRITE® FS by design removes any airflow over the optics, resulting in reduced residue deposits thus extending periods between cleaning. Furthermore, the unique Hot-Spot feature allows you to move from a flat field beam to a 6:1 ratio hot-spot beam giving uniform intensity when overlaying beam edges to create smooth washes of light; Cpulse™ flicker free management system for the latest cameras and our L3™ Low Light Linearity dimming for ultra-smooth fade to black for seamless integration into traditional lighting rigs.

#### Source

- Light source type: TE™ 650W HP White LED Engine (Patented)
  - □ HP High Performance Engine for maximum light output and optimal colour characteristics
  - □ LED Engine output: 55.000 lm
  - □ Fixture total lumen output: 34.000 lm (integrated sphere) 27.000 lm (goniophotometer)
  - □ Colour temperature output: 6.700K
  - $\hfill\Box$  CRI: 70, remotely selectable filters for CRI 80 and CRI 90 □ Illuminance: 85,000 lx @ 5 m
- Light source type: **TE™ 650W HCF White LED Engine** (Patented)
  - HCF High Colour Fidelity Engine for the best light quality and colour rendition
- □ LED Engine output: 37.500 lm
- □ Fixture total lumen output: 24.000 lm (integrated sphere) 19.000 lm (goniophotometer)
- □ Colour temperature output: 6.000K
- □ CRI: 96, TLCI: 97, TM-30-18 Rf: 92, TM-30-18 Rg: 99
- □ Illuminance: 59.000 lx @ 5 m
- LED life expectancy: min. 50.000 hours
- Typical lumen maintenance: L70/B50 @ 50.000 hours
- Light source warranty: 4 years or 20.000 hours

#### <u>Optical System</u>

- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio: 9:1 Zoom range: 5.5° 50°
- Output lens diameter: 150 mm

#### <u>Dynamic Effects</u>

- Cyan: 0-100 %
- Magenta: 0-100 %
- Yellow: 0-100 %
- Variable CTO: 3.000K 6.700K - Green correction function

- Colour Wheel 1: 5 fixed dichroic colours + white Colour Wheel 2: 5 fixed dichroic colours + white
- Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + -  $60^{\circ}$  Rotating gobo wheel: 7 rotating, indexable and replaceable
- breakup and aerial gobos + open, patented slot & lock system
- Static gobo wheel: 9 static and replaceable gobos  $\mbox{+}$  open Animation wheel: Aluminium animation wheel, used alone
- or in combination with gobos, rotating in both directions at variable speed
- Prism: 6 facet prism rotating in both directions at variable speed
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- Frosts:  $MagFrost^{TM}$  magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing shutters, and a medium 5° for even wash, both specifically selected for theatre and TV use
- Hot-Spot: from flat field to 6:1 hot-spot
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz
- High resolution electronic dimming: 0-100 %
- L3™ (Low Light Linearity) Imperceptible 18 bit dimming for ultra smooth fade to black
  Cpulse™ special flicker free management for HD and UHD
- cameras, ready for 8 K and 16 K
  AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

#### Control and Programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with  $\ensuremath{\mathsf{3}}$ editable programs (each up to 100 steps), built-in analyser
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- Wireless CRMX<sup>™</sup> technology from Lumen Radio on request
- Epass™- Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity - on request
- DMX Protocol modes: 4
- Control channels: 49, 42, 50, 43
- Pan/Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- + Green correction: 8 bit
- Colour wheel positioning: 8 or 16 bit Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 8 or 16 bit
- Static gobo wheel positioning: 8 bit
- Animation wheel: 8 bit
- Animation wheel rotation: 8 bit
- Iris: 8 or 16 bit
- Frost: 8 bit
- Zoom: 8 or 16 bit Focus: 8 or 16 bit
- Dimmer: 8 or 16 bit (internal 18 bit)

#### <u>Movement</u>

- Pan movement: 540°
- Tilt movement: 265°
- Movement control: Standard and Speed
- EMS™- Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- Automatic Pan/Tilt position correction

#### <u>Rotating gobos</u>

- 7x rotating glass gobos
- Outside diameter: 26.8 mm
- Image diameter: 23.5 mm
- Thickness: 1.1 mm
- Max. thickness: 4 mm
- High temperature borofloat or better glass

#### <u>Static Gobos</u>

- 9x static glass gobos
- Outside diameter: 26.8 mm Image diameter: 23.5 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass

#### iffect Wheel

- Single animation wheel
- Material: Aluminium
- Can be used alone or in combination with rotating gobos
- Rotating in both directions, variable speed

#### <u>Framing Shutters</u> ⁄stem

Patented Plano4™ framing shutters module

- 4 Blades, each with separate movement and rotation control
- Smooth movement with variable speed control ultrafast
- blade movements for creating mid-air effects
- Pre-programmed Shape and blade sequences
- +- 60° of the complete framing system

#### Camera

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom
- 32x digital zoom Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Minimum illumination: 0.05 Lux

#### <u>Thermal Specification</u>

- Maximum ambient temperature: 45 °C (113 °F) Maximum surface temperature: 80 °C (176 °F)
- Minimum operating temperature: -5 °C (23 °F)

#### Noise Levels

- Sound pressure level: 27 dB(A) at 1 m (quiet mode)
  - 42 dB(A) at 1 m (auto mode)
- Sound power level: 35 dB(A) (quiet mode) 50 dB(A) (auto mode)

#### Electrical Specification

#### and Connections

- Input voltage range: 100-240 V, 50/60 Hz Power consumption:
- Standard mode max. 870 W at 230 V / 50 Hz High-power mode max. 950 W at 230 V / 50 Hz
- Power in connector: Neutrik powerCON TRUE1 DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in: RJ45
- Ethernet port out: RJ45 camera video output
- Ethernet port in/out: RJ45 (instead of 3-pin XLR) for Embedded Epass™ switch 10/100 Mbps - on request

#### <u>Approvals</u>

- □ CE Compliant

#### cETLus Compliant (Patent pending) <u>Mechanical specification</u>

- Height: 733 mm (28.9") head in vertical position
- Width: 443 mm (17.4")
- Depth: 264 mm (10.4") head in vertical position Weight: 29.4 kg (64.8 lbs)
- Ingress protection rating: IP20

#### Rigging

- Mounting positions: Horizontally or vertically
- Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point
- Pan and Tilt transport locks

#### <u>Included Items</u>

- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON TRUE1 In connector
- RoboSpot Camera

#### Optional Accessories

- Esprite TE™ 650W HP White LED Engine: 14080066

  Esprite TE™ 650W HCF White LED Engine: 14080071

  Esprite TE™ 650W TGW White LED Engine: 14080079

  Frost 0.5° (exchange) assembled: 10980497

  Frost 10° (exchange) assembled: 10980497

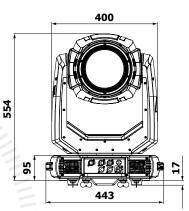
- Frost 10° (exchange) assembled: 10980497
   Frost 20° (exchange) assembled: 10980574
   Frost 30° (exchange) assembled: 10980584
   Hot-Spot lens in gobo holder: 10980483
   Gel frame adaptor: 10980463
   Gel frame: 10980464
   Doughty Trigger Clamp: 17030386
   Omega Adaptor Tall CL 2 pcs in box: 10980501
   Safety wire 36 kg: 99011963
   Single Top Loader Case: 10120254
   Dual Top Loader Case: 10120255
   Foam Shell: 20020357

- Foam Shell: 20020357
- Top hat: 10980568

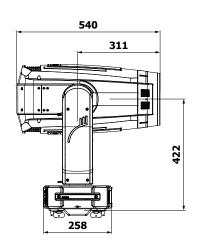
#### <u>Legal</u>

- □ ESPRITE® FS is a Trademark of Robe lighting s. r. o. □ ESPRITE® FS is patented by Robe lighting s. r. o. and protected by one or more pending or issued patents

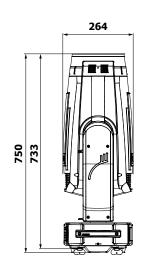














#### FORTE® FS

man. rea Forte means Excellence, Speciality, Strength. Our FORTE® certainly lives up to its name! With a choice of premium performance engines from our revolutionary TRANSFERABLÉ ENGINE technology, giving you the ability to maintain light quality, combined with a fixture packed full of specialist innovation, you have the luminaire ready to lead you into the future.

You can now choose between the TE™ 1.000W HP White LED Engine (HP – High Performance), producing the highest output possible, or the TE™ 1.000W HCF White LED Engine (HCF – High Colour Fidelity) for those requiring exception colour quality. Now you can fit either engine within the same fixture, without alignment or warranty issues, within five minutes! Without the expense, and complication of needing separate luminaires with differing sources, TRANSFERABLE ENGINES give you the right engine, in the right fixture, at the right time!

 $The \, revolution ary \, self-referencing, \, data \, capturing \, engines \, are \, all \, designed, \, developed \, and \, manufactured \, revolution \, are \, considered and \, manufactured \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, are \, considered and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \, revolution \, and \, revolution \, are \, considered and \,$ within our own factory (Robe patented technology). Performance has not been compromised, with the TE™ 1.000W HP White 6.700K LED Engine producing a piercing 50.000 lm and the TE™ 1.000W HCF White 6.000K LED Engine 35.000 Im with its exceptionally high inherent CRI of 96. The L70/B50 ratings of 50.000 hours, means longevity is assured.

Harnessing the strength of the self-referencing, data capturing TRANSFERABLE ENGINES, FORTE® has wide ranging 5 - 55 degree zoom capability to fulfil all your spot, wash and beam applications, contained within its class-

leading 41 kg frame. Usual output loss at the narrow zoom setting is taken care of via our ingenious Robe Patent pending narrow zoom output boost, improving performance by over 15 %, giving you a dramatically increased output, perfect for sabre like beams.

Robe's new, cutting-edge, CMY colour mixing system provides beautifully smooth colour transitions. Combined with two colour wheels. CRI 80 and 90 filters (HP Engine), and a variable CTO from 3.000K - 6.700K gives FORTE® total colour finesse.

The comprehensive, dynamic effects package includes; two fully indexable, rotatable gobo wheels each with 6 gobos using the fast change Robe slot and lock system; two stackable 6-facet prisms, one linear, one round; animation wheel and an ultra-fast motorized iris. The two rapid insert interchangeable frosts, a soft 1° and a medium 5° for silky smooth washes cover the entire zoom range of 5-55 degrees with no restricted range cut off.

FORTE® gives you total control via our ultra-precise patented framing shutter system, with separate blade control and the entire assembly capable of +- 60° rotation; Cpulse™ PWM control and direct Plus/Minus Green control for broadcast precision; EMS™ (Electronic Motion Stabiliser) technology, for instant stop and hysteresis elimination, making FORTE® the ideal fixture for RoboSpot™; L3™ (Low Light Linearity) dimming producing imperceptible fades to black.

FORTE® possesses a comprehensive protocol suite; USITT DMX 512, RDM, ArtNet, MA Net 2, and sACN. REAP™ (Robe Ethernet Access Portal) is included for direct communication over Ethernet networks. DMX Wireless control is available on request. All this allows seamless integration into all control networks.

The FORTE® FS is equipped with the digital camera on the head and can be connected with the RoboSpot™ BaseStation for off-stage follow spot operation.

#### Source

- Light source type: **TE™ 1.000W HP White LED Engine** (Patented)
  - □ HP High Performance Engine for maximum light output and optimal colour characteristics
  - LED Engine output: 82.000 lm
  - □ Fixture total lumen output: 50.000 lm (integrated sphere) 40.000 lm (goniophotometer)
  - Colour temperature output: 6.700K CRI: 70, remotely selectable filters for CRI 80 and CRI 90
  - Illuminance: 113.000 lx @ 5 m
  - Light source type: **TE**<sup>™</sup> **1.000W HCF White LED Engine** (Patented)
  - □ HCF High Colour Fidelity Engine for the best light quality and colour rendition.
  - LED Engine output: 55.000 lm
  - □ Fixture total lumen output: 35.000 lm (integrated sphere) 28.000 lm (goniophotometer)
  - Colour temperature output: 6.000K
  - CRI: 96, TLCI: 97, TM-30-18 Rf: 92, TM-30-18 Rg: 99 Illuminance: 78.000 lx @ 5 m
- LED life expectancy: min. 50.000 hours
- Typical lumen maintenance: L70/B50 @ 50.000 hours Light source warranty: 4 years or 20.000 hours
- Optical System
- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio 11:1
- Zoom range: 5° 55°
- Output lens diameter: 180 mm

#### Dynamic Effects and **Features**

- Cvan: 0-100%
- Magenta: 0-100%
- Yellow: 0-100%
- Variable CTO: 3.000K 6.700K
- + Green correction function
- Colour Wheel 1: 5 fixed dichroic colours + white
- Colour Wheel 2: 5 fixed dichroic colours + white Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete framing system +-60°

- Rotating gobo wheel 1: 6 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- Rotating gobo wheel 2: 6 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- Animation wheel: Aluminium animation wheel, used alone or in combination with gobos, rotating in both directions at variable speed
- MLP™ Patented Multi-Level Prisms allow multiple prisms to be "stacked" while retaining individual speed and direction control. With variable shape and size it creates unlimited dynamic, multi-level flower and beam effects
- Prism 1: Independent 6 facet linear prism rotating in both directions at variable speed
- Prism 2: Independent 6 facet circular prism rotating in both directions at variable speed
- MagFrost™ magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing shutters, and a medium 5° for even wash, both specifically selected for theatre and TV use
- Hot-Spot: From flat field to 6:1 hot-spot (optional)
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz, pre-programmed randomstrobe & pulse effects
- High resolution electronic dimming: 0–100%
- L3™ (Low Light Linearity) Imperceptible 18 bit dimming for ultra smooth fade to black
- Extremely quiet operation suitable for all types of production in Theatre and TV
- $\mathsf{Cpulse}^{\scriptscriptstyle\mathsf{TM}}$  special flicker free management for HD and UHD cameras, ready for 8K and 16K
- AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

#### Control and Programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation

- with 3 editable programs (each up to 100 steps), built-in
- analyser for easy fault finding Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2,
- REAP™ Robe Ethernet Access Portal Wireless CRMX™ technology from Lumen Radio on request
- Epass™ Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity
- DMX Protocol modes: 1
- Control channels: 54
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- + Green correction: 8 bit
- Colour wheel positioning: 16 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 16 bit
- Animation wheel: 8 bit Animation wheel rotation: 8 bit
- Iris: 16 bit
- Frost: 8 bit
- 700m: 16 bit
- Focus: 16 bit
- Dimmer: 16 bit (internal 18 bit)

#### <u>Movement</u>

- Pan movement: 540°
- Tilt movement: 270° Movement control: Standard and Speed
- Controllable speed of Pan & Tilt movement
- EMS™ Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patent pending)
- Automatic Pan & Tilt position correction

#### Rotating Gobos

- 12 x Fully rotating, indexable glass gobos on two wheels
- Outside diameter: 30.8 mm
- Image diameter: 25.0 mm
- Thickness: 1.1 mm
  - Max. thickness: 3.5 mm High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

#### Effect Wheel

- Single animation wheel
- Material: Aluminium
- Diameter: 112 mm Can be used alone or in combination with rotating gobos
- Rotating in both directions at variable speed

#### Camera - FORTE FS

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom
- 32x digital zoom Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Minimum illumination: 0.05 Lux

#### Framing Shutters System

- Patented Plano4™ framing shutters module
- Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: Smooth with variable speed, ultra-fast blade movements for creating mid-air effects
- Rotation: +- 60° of the complete framing system

#### Thermal Specification

- Maximum ambient temperature: 45 °C (113 °F)
- Maximum surface temperature: 100 °C (212 °F) Minimum operating temperature: -5 °C (23 °F)

#### Noise Levels

- Sound pressure level: 33 dB(A) at 1 m (quiet mode) 44 dB(A) at 1 m (auto mode)

  Sound power level: 41 dB(A) (quiet mode)
- 52 dB(A) (auto mode)

#### Electrical Specification and **Connections**

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: max. 1200W
- Power connector in: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in/out: RJ45 for Embedded Epass<sup>TM</sup> switch 10/100 Mbps
- Ethernet port out: RJ45 FORTE FS, camera video output

#### <u>Approvals</u>

- CE Compliant cETLus Compliant

#### Mechanical specification

- Height: 843 mm (33.2")
- Width: 483.5 mm (19")
- Depth: 335 mm (13.1") head in vertical position
- Weight: FORTE 41 kg (90.4 lbs)
- FORTE FS 42.2 kg (93.1 lbs)

#### Ingress protection rating: IP20

#### <u>Rigging</u>

- Mounting positions: 0°, 32°, 90°
- Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point
- Pan & Tilt transport locks

#### Included Items

- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON TRUE1 In connector
- RoboSpot Camera for FORTE FS

#### Optional Accessories

- Frost 0.5° (exchange) assembled: 10980581

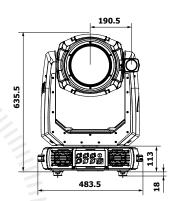
- Frost 1° (exchange) assembled: 10980564 Frost 5° (exchange) assembled: 10980565 Frost 10° (exchange) assembled: 10980556

- Frost 20° (exchange) assembled: 10980577 Frost 30° (exchange) assembled: 10980582 Module of PC lens: 10980611
- Module of Fresnel lens: 10980610

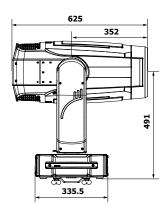
- Hot-Spot lens in gobo holder: 10980557 Doughty Trigger Clamp: 17030386 Omega Adaptor Tall CL-regular 2 pcs in box: 10980501
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120267-01 Dual Top Loader Case: 10120268
- Foam Shell: 20020395-01

#### Legal

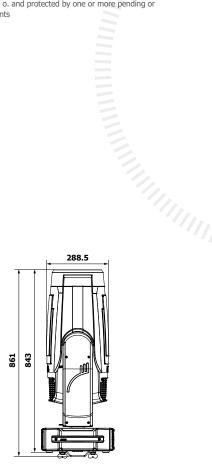
- FORTE® is Registered Trademark of Robe lighting s. r. o.
- FORTE® Profile and FORTE® FS are patented by Robe lighting s. r. o. and protected by one or more pending or issued patents













#### iFORTE® FS

Even the mighty need the right protection! With unique game-changing patented technology, you can shift the power outside, rain or shine, dust, smoke and haze, with the iFORTE®!

The most powerful member of the Robe iSeries, the IP65-rated iFORTE® combines far-reaching output and feature-rich effects in a fully protected package, capable of handling all the challenges of being outdoors.

iFORTE® negates the traditional weight penalty associated with IP-rated fixtures being only 1.5 kg heavier than the indoor FORTE®. With its class-leading form factor, size and appearance, and all the features and identical performance of the indoor original, iFORTE® enables seamless integration with each other, even on the same truss if desired!

The ingenious ingress protection system has been specifically designed to allow standard maintenance and preparation procedures, such as TRANSFERABLE ENGINE exchange and gobo replacement without any additional tools, as gobo change or maintenance work can be done on-site.

The onboard RAINS™ (Robe Automatic Ingress Neutralization System) manages humidity, temperature and pressure control using an active monitoring system to automatically remove any moisture detected within the fixture and provides constant monitoring to ensure peak performance. iFORTE® runs an ingenious Self Pressure Test to check internal pressure. This self-test, taking no more than 3 minutes, provides an error message if covers were not replaced correctly or locking screws were incorrectly tightened (Patent pending).

Thoir li Their lightweight magnesium alloy covers, with aluminium alloy substructure, provide a dust-free environment for the optics, eliminating the need for frequent cleaning, routine maintenance, and UV damage to plastic parts.

To maintain consistently high lumen output, even with the rigours of outdoor performance, water, dirt, dust, haze, and smoke are repelled from the front lens with our unique parCoat™ hydrophobic, oleophobic resistant coating. Furthermore, it allows easy removal without scratching or damage

By including NFC (Near-Field Communication) technology, you can access setup, diagnostic and performance features, even when the fixture is not powered, directly from your mobile device using the Robe Com app.

iFORTE® TE™ 1.000W iSE HP (High Performance) White LED TRANSFERABLE ENGINE generates the same, piercing 50.000 lumen fixture output. The identical 11:1 zoom optical system, with a 5.5° to 55° zoom range, provides all the flexibility you require.

Removing the need for distracting pre-use pan and tilt calibration movement, our patented MAPSTM (Motionless Absolute Positioning System) allows the fixture to fully calibrate while remaining static. Very useful when fixtures are located within confined spaces.

Our cutting-edge CMY colour mixing system provides beautifully smooth mixing and transitions. Combined with two colour wheels, CRI 80 and 90 filters (HP Engine), and a variable CTO from 3.000 - 6.700 K give iFORTE® total colour finesse.

With the patented Plano4™ four individual plane framing shutters, two fully indexable rotating gobo wheels, an animation wheel, two independent 6-facet prisms and two MagFrost 1° and 5° frosts, you have all the creative tools you need.

Keeping up with technological advances, we have incorporated Epass™ for maintaining network connectivity, and for television users, Cpulse™ is included for flicker-free management of HD and UHD camera systems.

The iFORTE® FollowSpot is equipped with a full HD digital camera mounted on the head, again with parCoat™ lens protection. The IP65-rated camera features 32x optical and 32x digital zooms and is suitable for light levels down to 0.05 lux. It connects to the industry-leading RoboSpot™ BaseStation for remote-controlled follow spot operation.

iFORTE® FS - Robe reliability in all weathers.

#### Source

- Light source type: TE™ 1.000W iSE HP White LED Engine (Patented)
- HP High Performance Engine for maximum light output
- and optimal colour characteristics
- □ LED Engine output: 82.000 lm
- Fixture total lumen output: 50.000 lm (integrated sphere) 40.000 lm (goniophotometer)
- Colour temperature output: 6.700K
   CRI: 70, remotely selectable filters for CRI 80 and CRI 90
- Illuminance: 113.000 lx @ 5 m
- Light source type:  $\mathbf{TE}^{\mathsf{TM}}$  1.000W iSE HCF White LED
  - Engine (Patented)

    HCF High Colour Fidelity Engine for the best light quality and colour rendition

  - □ LED Engine output: 49.000 lm
    □ Fixture total lumen output: 35.000 lm (integrated sphere) 28.000 lm (goniophotometer)

  - Colour temperature output: 6.000K CRI: 96, TLCI: 91, TM-30-18 Rf: 90, TM-30-18 Rg: 98
- ☐ Illuminance: 78.000 lx @ 5 m LED life expectancy: min. 50.000 hours
- Typical lumen maintenance: L70/B50 @ 50.000 hours
- Light source warranty: 4 years or 20.000 hours

#### <u> ptical Syste</u>m

- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio: 11:1 Zoom range:  $5^{\circ}$   $55^{\circ}$
- Output lens diameter: 180 mm
- $\operatorname{parCoat}^{\mathsf{TM}}$  (particle resistant coating) unique hydrophobic and oleophobic coating helps prevent water, dirt, dust, haze and smoke from adhering to the output lens

#### vnamic Effects and <u>eatures</u>

- Cyan: 0 100%
- Magenta: 0 100%

- Yellow: 0 100%
- Variable CTO: 3.000K 6.700K Colour Wheel 1: 5 fixed dichroic colours+ white
- Colour Wheel 2: 5 fixed dichroic colours + white Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + - 60°
- Rotating gobo wheel 1: 6 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- Rotating gobo wheel 2: 6 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- Animation wheel: Aluminium animation wheel, used alone or in combination with gobos, rotating in both directions at
- variable speed MLP™ Patented Multi-Level Prisms allow multiple prisms to be "stacked" while retaining individual speed and direction control.
  With variable shape and size it creates unlimited dynamic, multi-level flower and beam effects
  - Prism 1: Independent 6 facet linear prism rotating in both directions at variable speed
  - Prism 2: Independent 6 facet circular prism rotating in both directions at variable speed
- $\mathsf{MagFrost}^{\scriptscriptstyle\mathsf{TM}}$  magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing shutters, and a medium 5° for even wash, both specifically
- selected for theatre and TV use Hot-Spot: From flat field to 6:1 hot-spot (optional)
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz, pre-programmed random strobe & pulse effects
- High resolution electronic dimming: 0 100% L3<sup>™</sup> - (Low Light Linearity) Imperceptible 18 bit dimming
- for ultra smooth fade to black Extremely quiet operation suitable for all types of production in Theatre and TV
- Cpulse™ special flicker-free management for HD and UHD cameras, ready for 8K and 16K

- □ AirLOC<sup>™</sup> (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

  POLAR+™ for power saving and instant operation in
- extremely cold weather conditions

#### Control and Programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: OVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser for easy fault finding, NFC app controller
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- REAP™ Robe Ethernet Access Portal
- Wireless CRMX™ technology from Lumen Radio
- Epass™ Ethernet pass through switch which sustains
  - Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity
- RAINS™ (Robe Automatic Ingress Neutralization System) manages humidity, temperature and pressure control using an active monitoring system to automatically remove any moisture detected within the fixture and provides constant monitoring to ensure peak performance
- DMX Protocol modes: 2
- Control channels: 54, 56
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- Colour wheel positioning: 16 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 16 bit Animation wheel: 8 bit
- Animation wheel rotation: 8 bit
- Iris: 16 bit Frost: 8 bit
- - Zoom: 16 bit
  - Focus: 16 bit Dimmer: 16 bit (internal 18 bit)

#### Movement

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed
- Controllable speed of Pan & Tilt movement EMS  $^{\text{TM}}$  Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
  MAPS™ - Motionless absolute positioning system for
- Pan & Tilt (Patented)
- Automatic Pan & Tilt position correction

#### Rotating Gobos

- 12x fully rotating, indexable glass gobos on two wheels
- Outside diameter: 30.8 mm
- Image diameter: 25.0 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

#### Effect Wheel

- Single animation wheel
- Material: Aluminium
- Diameter: 112 mm
- Can be used alone or in combination with rotating gobos
- Rotating in both directions at variable speed

#### Camera - iFORTE FS

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom 32x digital zoom
- Vision: Day & Night (ICR), WDR (120dB), Defog
  Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Minimum illumination: 0.05 lux parCoat™ (particle resistant coating) unique hydrophobic and oleophobic coating helps prevent water, dirt, dust, haze and smoke from adhering to the output lens

#### Framing Shutters System

- Patented Plano4™ framing shutters module Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: Smooth with variable speed, ultra-fast for creating mid-air effects
- Rotation: +- 60° of the complete framing system

#### Thermal Specification

- Maximum ambient temperature: 50 °C (122 °F)
- Maximum surface temperature: 80 °C (176 °F) Minimum operating temperature: -50 °C (-58 °F)
- Electrical Specification and Connections
- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: max. 1250 W
- Power connector in: IP65 Neutrik powerCON TRUE1
- DMX and RDM data in/out: IP65 Locking 5-pin XLR connectors
- Ethernet port in: IP65 RJ45 connector
- Ethernet port out: IP 65 RJ45 camera video output
- Ethernet port in/out: RJ45, for Embedded Epass™ switch 10/100

#### <u>Approvals</u>

- **CE Compliant**
- cETLus Compliant

#### <u>Mechanical Specification</u>

- Height: 856 mm (33.7") head in vertical position
- Width: 480 mm (18.89")
- Depth: 335 mm (13.1") head in vertical position Weight: iFORTE 42.5 kg (93.7 lbs)
- iFORTE FS 43.8 kg (96.5 lbs)
- Ingress protection rating: IP65

#### Rigging

- Mounting positions: 0°, 32°, 90° Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks Safety cable attachment point
- Pan & Tilt transport locks

#### <u>Included Items</u>

- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON TRUE1 In connector: US:13052277-01 EU:13052276-01
- Camera for iFORTE® FS

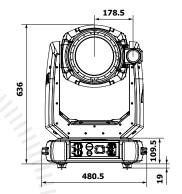
#### Optional Accessories

- iForte iSE-TE™ 1.000W HP White LED Engine: 14080081 iForte iSE-TE™ 1.000W HCF White LED Engine: 14080082
- Frost 0.5° (exchange) assembled: 10980581
- Frost 1° (exchange) assembled: 10980564 Frost 5° (exchange) assembled: 10980565
- Frost 10° (exchange) assembled: 10980556
- Frost 20° (exchange) assembled: 10980577 Frost 30° (exchange) assembled: 10980582

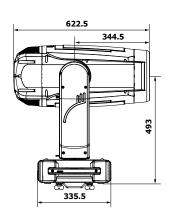
- Hot-Spot lens in gobo holder: 10980557
- Doughty Trigger Clamp: 17030386
- Safety wire 50 kg: 99011957 Single Top Loader Case: 10120295
- Dual Top Loader Case: 10120296
- Foam Shell: 20020439

#### egal

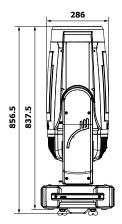
- iFORTE® is Registered Trademark of Robe lighting s. r. o.
- iFORTE® Profile and iFORTE® FS are patented by Robe lighting s. r. o. and protected by one or more pending or issued patents













#### **iFORTE® LTX FS**

Are you looking for the ultimate long throw, high output, all-environment LED WashBeam or Follow spot for true, stadium-level reach capable of outperforming all others? Your answer – The Robe® iFORTE® LTX WB and iFORTE® LTX FS!

Redefining the boundaries of output, optical excellence, and performance while retaining all the subtleties of theatrical precision, these iSERIES IP65-rated Robe® fixtures are truly the next-generation unrivalled WashBeam and remote-controlled camera equipped follow spot luminaires for live concert touring,

Our latest, most powerful, internally designed, developed, patented, and manufactured iSE-TE™ 1000W XP (Xtra Performance) IP65-rated White LED TRANSFERABLE ENGINE produces an incredible, industry leading 355.000 lx at 5 m. They will never be wanting in terms of reach and impact!

Data capturing TRANSFERABLE ENGINE technology offers all the advantages of field exchange, costeffective replacement, and the ability to keep up with LED development to ensure exceptionally long fixture life. With typical lumen maintenance of L70/B50 50.000 hours, the 4-year 20.000-hour warranty gives peace of mind, whatever the weather.

In line with its outstanding performance, the iFORTE® LTX luminaires create imposing visual statements with their domineering, solid beam from the 245 mm front lens.

\*ics to attair With innovative optics to attain absolute WashBeam functionality, the fixtures contain three zoom modes. The standard Optical Mode for the widest  $3.5^{\circ}$  -  $52^{\circ}$  coverage; Follow Spot Mode  $2^{\circ}$ - $52^{\circ}$ ; Long Throw Follow Spot Mode, using xR7<sup>TM</sup> technology, with an ultra-tight  $0.7^{\circ}$  –  $2^{\circ}$  beam to deliver crisp, incisive beams, without any intensity loss due to the engaged iris over long distances.

Colour generation is via a CMY colour mixing system. With two colour wheels and a variable CTO of 3.000 - 6.700K, you have all the tools to cover everything from the densest saturates to the most refined pastel shades.

The PLANO4™ four individual plane blade system, with 120° module rotation, delivers precise, endlessly repeatable framing without shape restriction.

The iFORTE® LTX WB and iFORTE® LTX FS are not all about power. They are packed full of features and effects, including; One rotating, indexable gobo wheel with 5 replaceable gobos; Two aluminium animation wheels with variable speed and directional control; Two independently controlled stackable prisms-one 6-facet circular and one 6-facet linear; Two MagFrost™ interchangeable 1° and 20° frosts.

The luminaires feature our advanced L3™ 18-bit dimming system, and Cpulse™ flicker-free management for the latest camera systems. Both are equipped with Epass™ in and out ports for automatically maintained network connectivity and a separate, dedicated camera port.

The iFORTE® LTX WB features camFIT™, meaning its pre-wired and pre-balanced for the addition of the dedicated IP65-rated Robospot™ camera if required. Together with EMS™ (Electronic Motion Stabiliser) technology for instant stop and hysteresis elimination, the iFORTE™ LTX WB and FS are the perfect RoboSpot partner.

Removing the need for pre-use pan and tilt calibration, MAPS™ (motionless Absolute Positioning System) allows fixtures to calibrated without movement. This also removes audience distraction while resetting during a performance.

The highly advanced patented RAINS™ (Robe Automatic Ingress Protection System) technology actively manages the fixture's internal microclimate removing internal moisture build-up caused by constant heating and cooling to provide maximum protection for electronics. With simple maintenance procedures, Robe has revolutionised how outdoor fixtures are managed and protected. Streamlined preparation saves time.

These units run an ingenious Self Pressure Test to check internal pressure. Requiring no special tools and taking under 3 minutes, the test provides an error message where gaskets and covers were not replaced correctly or locking screws incorrectly tightened, ensuring maximum protection.

To maintain consistently high lumen output, even with the rigours of outdoor performance, water, dirt, dust, haze, and smoke are repelled from the front lens and camera lens with our unique parCoat™ hydrophobic, oleophobic-resistant coating. Furthermore, it allows easy removal of deposits without scratching or damage.

For operation in extreme cold, the iFORTE® LTX WB and FS models contain our innovative POLAR+TM technology. This special standby mode maintains sensors and communication while reducing power consumption. When activated, POLAR+™ will automatically maintain an internal temperature level, allowing instant operability down to minus 50 degrees centigrade!

Ideally suited for remote outdoor installations, REAPTM, the Robe Ethernet Access Portal communication software, viewed as a web browser, shows real-time fixture monitoring of all parameters, including complete RAINS™ status information such as pressure and internal saturation levels.

By including NFC (Near-Field Communication) technology, you can access setup, diagnostic and performance features, even without power, directly from your mobile device using the Robe Com app.

Our iFORTE® LTX WB and FS provide highly versatile packages of extreme output LED WashBeam and long throw Follow spot luminaires, specifically designed for indoor and outdoor use.

#### iFORTE® LTX - Robe reliability in all weathers.

#### <u>Source</u>

- Light source type: iSE-TE™ 1.000W XP White LED Engine (Patented)
  - XP Xtra Performance Engine for maximum light output and optimal colour characteristics
  - LED Engine output: 90.200 lm
  - Fixture total lumen output: 55,000 lm (integrated sphere) 43.800 lm (goniophotometer)
  - Colour temperature output: 6.700K
  - CRI: 70, remotely selectable filters for CRI 80 and CRI 90
- Illuminance: 355.000 lx @ 5 m
- LED life expectancy: min. 50.000 hours
- Typical lumen maintenance: L70/B50 @ 50.000 hours
- Light source warranty: 4 years or 20.000 hours

#### Optical System

- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio: 15:1
- Zoom range:
  - 3.5° 52° (standard optical zoom) 2° - 52° (follow spot mode - using optical zoom + iris) 0.7° - 2° (long throw follow spot mode - using iris)
- Output lens diameter: 245 mm

#### Dynamic Effects and

#### Features 5

- Cvan: 0 100% Magenta: 0 - 100%
- Yellow: 0 100%
- Variable CTO: 3.000K 6.700K
- Colour Wheel 1: 5 fixed dichroic colours+ white
- Colour Wheel 2: 5 fixed dichroic colours + white
- Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + - 60°
- Rotating gobo wheel: 5 rotating, indexable and replaceable breakup and aerial gobos + beam reducer + open, patented slot & lock system
- Animation wheel: 2 Aluminium animation wheels, used alone or in combination with gobos, rotating in both directions at variable speed
- Prism 1: Independent 6-facet linear prism rotating in both directions at variable speed
- Prism 2: Independent 6-facet circular prism rotating in both directions at variable speed

- MagFrost<sup>™</sup> magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing
- shutters, and 5° for even wash, both specifically selected for theatre and TV use
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- xR7™ eXtreme Reach Follow Spot technology enables you to achieve unprecedented light levels, even the narrowest beam angle of 0.7 degrees
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz, pre-programmed random strobe & pulse effects
- High resolution electronic dimming: 0 100%  $L3^{\text{TM}}$  (Low Light Linearity) Imperceptible 18 bit dimming
- for ultra smooth fade to black Extremely quiet operation suitable for all types of production
- in Theatre and TV Cpulse™ - special flicker-free management for HD and UHD
- cameras, ready for 8K and 16K AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

- POLAR+™ for power saving and instant operation in extremely cold weather conditions
- CamFit™ Prewired for later camera installation

#### Con<u>trol and Programming</u>

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser for easy fault finding, NFC app controller
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- REAP™ Robe Ethernet Access Portal
- Wireless CRMX<sup>™</sup> technology from Lumen Radio
- $\mathsf{Epass}^{\scriptscriptstyle\mathsf{TM}}$  Ethernet pass through switch which sustains  $\mathsf{Ethernet}_\square$ integrity, when the fixture has no power, to automatically maintain network connectivity
- DMX Protocol modes: 1
- Control channels: 54
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- Colour wheel positioning: 16 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 16 bit
- Animation wheel: 8 bit
- Animation wheel rotation: 8 bit
- Iris: 16 bit
- Frost: 8 bit
- Zoom: 16 bit Focus: 16 bit
- Dimmer: 16 bit (internal 18 bit)

#### <u>Movement</u>

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed
- Controllable speed of Pan & Tilt movement
- EMS™ Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- Automatic Pan & Tilt position correction
- MAPS™ Motionless absolute positioning system for Pan and Tilt (Patented)

#### **Rotating Gobos**

- 5x rotating glass gobos + beam reducer
- Outside diameter: 30.8 mm
- Image diameter: 25.0 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm

- □ High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

#### Effect Wheel

- Dual animation wheel Material: Aluminium
- Diameter: 112 mm
- Can be used alone or in combination with rotating gobos
- Rotating in both directions at variable speed

#### Framing Shutters System

- Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: Smooth with variable speed, ultra-fast for creating mid-air effects
- Rotation: +- 60° of the complete framing system

#### - iFORTE LTX FS Camera

- Type: XNZ-L6320A
- Resolution: 1920 x 1080, 16:9 Full HD (1080p) resolution support
- Zoom: 32x optical zoom 32x digital zoom
- Vision: Day & Night (ICR), WDR (120dB), Defog
- Streaming: H.265, H.264, MJPEG Codec, Multiple streaming
- Minimum illumination: 0.05 lux
- parCoat™ (particle resistant coating) unique hydrophobic and oleophobic coating helps prevent water, dirt, dust, haze and smoke from adhering to the output lens

#### <u>Thermal Specification</u>

- Maximum ambient temperature: 50 °C (122 °F)
- Maximum surface temperature: 100 °C (212 °F) Minimum operating temperature: -50 °C (-58 °F)
- Total heat dissipation: max. 3200 BTU/h (calculated)

#### Electrical Specification and <u>Connections</u>

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: max. 1.250 W Power connector in: IP65 Neutrik powerCON TRUE1
- DMX and RDM data in/out: IP65 Locking 3-pin & 5-pin XLR connectors
- Ethernet port out: RJ45 camera video output
- Ethernet port in/out: IP65 RJ45, for Embedded Epass™ switch

#### Approvals

- CE Compliant
- cETLus Compliant

#### Mechanical Specification

- Height: 904 mm (35.6") head in vertical position
- Width: 480 mm (18.89")
- Depth: 335 mm (13.1") head in vertical position
- Weight: iFORTE LTX 49 kg (108.42 lbs) iFORTE LTX FS 49 kg (108.42 lbs)
- Ingress protection rating: IP65

#### Rigging

- Mounting positions: 0°, 32°, 90°
- Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point
- Pan & Tilt transport locks

#### Included Items

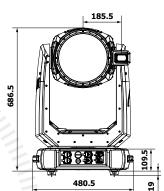
- User Manual
- Omega Adaptor CL-regular 2 pcs
- Power cord including powerCON TRUE1 In connector: LIS-13052277-01
  - EU:13052276-01
- 2° Beam reductor for long throw follow spot operation
- RoboSpot Camera for iFORTE® LTX FS

#### <u>Optional Accessories</u>

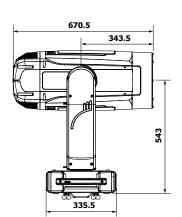
- CamFit kit: 10980885
- Frost 0.5° (exchange) assembled: 10980581
- Frost 1° (exchange) assembled: 10980564
- Frost 5° (exchange) assembled: 10980565 Frost 10° (exchange) assembled: 10980556
- Frost 20° (exchange) assembled: 10980577
- Frost 30° (exchange) assembled: 10980582 Doughty Trigger Clamp: 17030386
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120326 Dual Top Loader Case: 10120327
- Foam Shell: 20020475

#### <u>egal</u>

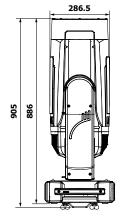
- iFORTE® LTX and iFORTE® LTX FS are Registered Trademarks of Robe lighting s. r. o.
- iFORTE® LTX and iFORTE® LTX FS are patented by Robe lighting s. r. o. and protected by one or more pending or issued patents









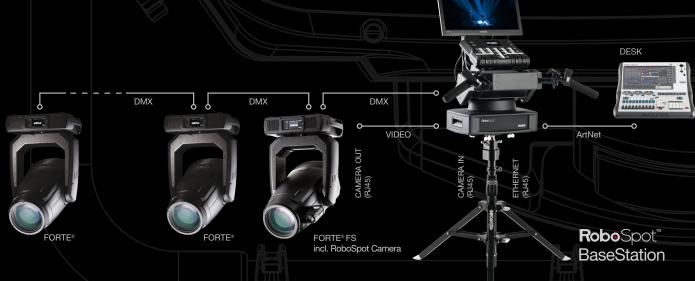




## **Robo**Spot<sup>m</sup>

## CONFIGURATION





RoboSpot system consisting of Robe moving head luminaire with RoboSpot Camera, RoboSpot BaseStation and DMX control desk. Robe moving head luminaires with a mounted RoboSpot Camera on the head for use as the reference follow spot device:



## **CHARTS:**

## **Robo**Spot<sup>™</sup> MULTI DEVICE CONTROL

DESK



**Robo**Spot™ **BaseStation** 

RoboSpot system with RoboSpot MotionCamera, RoboSpot BaseStation and DMX control desk. Up to 12 following fixtures can be connected to the RoboSpot BaseStation through the RoboSpot MotionCamera:







**BMFL™** Blade **BMFL™** WashBeam





























Pointe\*











MEGA



Silver VIVA" CMY



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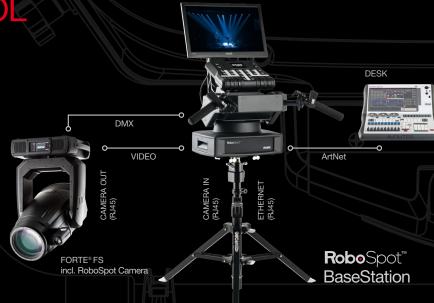


LEDBeam 350™

## **Robo**Spot<sup>™</sup>

## CONFIGURATION





Follow spot system containing DMX control desk, RoboSpot BaseStation and BMFL FollowSpot / LT including RoboSpot Camera. Robe moving head luminaires with a mounted RoboSpot Camera on the head for use as the reference follow spot device:



### **Robo**Spot<sup>m</sup> CHARTS: SINGLE DEVICE CONTROL DESK VIDEO FORTE® RoboSpot® **Robo**Spot™ **MotionCamera BaseStation** Follow spot system containing DMX control desk, RoboSpot BaseStation, RoboSpot MotionCamera and moving head luminaire. The Following fixtures can be connected to this follow spot system: **BMFL™** Blade **BMFL™** WashBeam iESPRiT= FORT= iFORT≣ DL75 Profile™ IFORT LTX WB (T) PROFILE **DL4**\$ Profile™ PROFILE\* iSpiider% iPointe.65



PAINTE

iP∧iNT≣

iBeam350

MEGA

Poor |

**VIVA**"CMY

Pointe<sup>®</sup>







www.robe.cz



**Head office:** ROBE lighting s. r. o. | Hážovice 2090 | 756 61 Rožnov pod Radhoštěm | Czech Republic

Factory: ROBE lighting s. r. o. | Palackého 416 | 757 01 Valašské Meziříčí | Czech Republic

Tel.: +420 571 751 500 | E-mail: robe@robe.cz