

01 Specs 01Titel	LED Modul MDD L 2D /DMX/02	12.11.18 MH VS.01	Project No.
Item / No.	Description/ Quantity/ Unit	Unit price	Total price
01.1 Position	Description: DMX-RDM* controlled LED RGB spotlight module consisting of 3 LED-spots, 1 LED-driver and mounting bracket, suited for multi & single dimensional actuators. Suitable for dry and wet assembly. Environmental conditions for dry application: None Environmental conditions for wet application (waterquality): Installation and operation in fresh-, pool- and seawater.** Technical data: Whole Module: Dimensions (ØxH): 325 x 52 [mm] Weight (incl. LED-driver): 6.5 kg Max. nozzle major diameter: 41 mm Luminous flux total: 1719 lm Nominal voltage: 24 V DC Power consumption: 48 W Nominal current: 2.1 A LED-driver: Material controller housing: PBT Dimensions (Lx W x H): 153 x 130 x 89 [mm] Nominal voltage: 24 V DC Max. power consumption: 180 W Max. nominal current: 7.5 A Protection class: IP 68 Weight: 2.9 kg DMX-RDM compatible: Yes Number of output sockets: 4 Pin allocation of output sockets: Pin 1: GND Pin 2: Data In (UART) Pin 3: n.c. Pin 4: Data Out (UART) Pin 5: + 24 V Number of DMX channels: 20 / 5 per Output Configuration/Parameterization in build-in: Yes Overheating protection: Yes Reverse polarity protection: Yes LED-Spots (each): Dimensions lamp housing (Ø x H): 125 x 52 [mm] Material: Stainless steel 1.4404 (AISI 316) / Glas lens Total weight: 1,2 kg Protection class: IP 68 Luminous flux total: 573 lm Luminous flux red: 172 lm Luminous flux green: 307 lm Luminous flux blue: 94 lm Beam angle: 11° Power consumption: 16 W Rated voltage: 24 V DC Rated current: 0,7 A Energy efficiency category: A		

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	Weighted energy consumption: 17,6 kWh / 1000 h Thermal protection: Yes DMX-RDM-controllable** Yes DMX configuration in built-in status possible** Yes Able to perform strobe effects: Yes strobe effect frequency range** 0 - 25 Hz <u>Mounting bracket:</u> Material: Stainless steel 1.4404 (AISI 316L) Position lock: Yes Elongated hole for fixation: Yes Dimensions of the hole: 60 x 6,5 [mm] <u>Cable and connection boxes:</u> All signals with galvanic separation in connection boxes Housing material: PET-GF <u>LED-Driver:</u> <u>DMX-cabling:</u> 1 m DMX cable and DMX connection box Cable (AES/EBU CableBinary 234) 4 x 0.34 mm² DMX plug (XLR): 1 x In 1 x Out Integrated water barrier: yes Pin allocation: Pin 1: shield Pin 2: minus Pin 3: plus Pin 4: n.c. Pin 5: n.c. <u>Power-cabling:</u> 1.0 m 24 V power cable and 24 V connection box Cable (H07RN-F): 2 x 1.5 mm² 24 V Power Plug 2 x special version Integrated water barrier: Yes <u>LED Spots:</u> <u>Plug/Socket/cables:</u> Length hybrid cable (incl. plug): 1m Cable: 4 x 0,34mm² (screened) Patented, waterproof plug: Yes Integrated water barrier: Yes Pin allocation: Pin 1: GND Pin 2: Data In (UART) Pin 3: n.c. Pin 4: Data Out (UART) Pin 5: + 24 V		

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	*DMX RDM [Remote Device Managment] is a bidirectional bus for querying and programing of DMX-devices. A RDM control unit is capable of identifying connected devices and to -partial automatically- configure them. DMX RDM devices can be operated simultaneously with simple DMX devices at the same time. **only in conjunction ith the forementioned LED Driver					
	water-quality-matrix					
		Freshwater	Poolwater			Seawater
	PH.Value	7,2 -7,6	7,2 -7,6			8
	Hardness	8 -15 ° DH; 142 -267 ppm CaCo3	8 -15 ° DH; 142 -267 ppm CaCo3			20 -30 ° DH; 356 - 534 ppm CaCo3
	Free Chlorine	< 0,3 mg/l; < 0,036 moz/gal	0,3 -0,6 mg/l; 0,036 - 0,072 moz/gal			< 0,3 mg/l; < 0,036 moz/gal
	Chlorine concentration	< 250 mg/l; < 30,28 moz/gal	< 200 mg/l; < 24,2 moz/gal			<=22000 mg/l; <=2664 moz/gal
	Salinity	n. d.	n. d.			<= 4%; <= 40.000 ppm
	Total Dry Residue	< 50 mg/l; < 6,06 moz/gal	< 50 mg/l; < 6,06 moz/gal			< 250mg/l; < 30,28 moz/gal
	Temperature	4 -35° C; 39 - 95 ° F	4 -30° C; 39 - 86 ° F			4 - 20 ° C; 39 - 68 ° F
	Supply and delivery according to manufacturer specifications.					
	Product / proof of delivery: LED Modul MDD L 2D /DMX/02 Art. 70977					
	OASE GmbH Tecklenburger Str. 161 48477 Hörstel / Germany Phone: +49 5454 800					
	(or equivalent) Entered by the bidder					