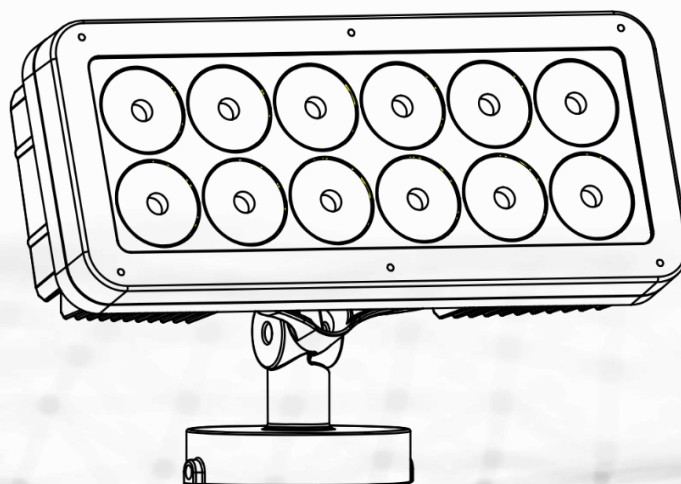


图纸编码	RD-1064-SM-001(ARC-I)				版本号	A
T12 英文说明书					编辑日期	2026/5/13
制作	刘丽萍	审核	韩子晓	批准	余泽松	
物料编码	1320110152					
修改内容						
备注	以 A4 样本打印					



T12

Please read this user manual in full before using this product

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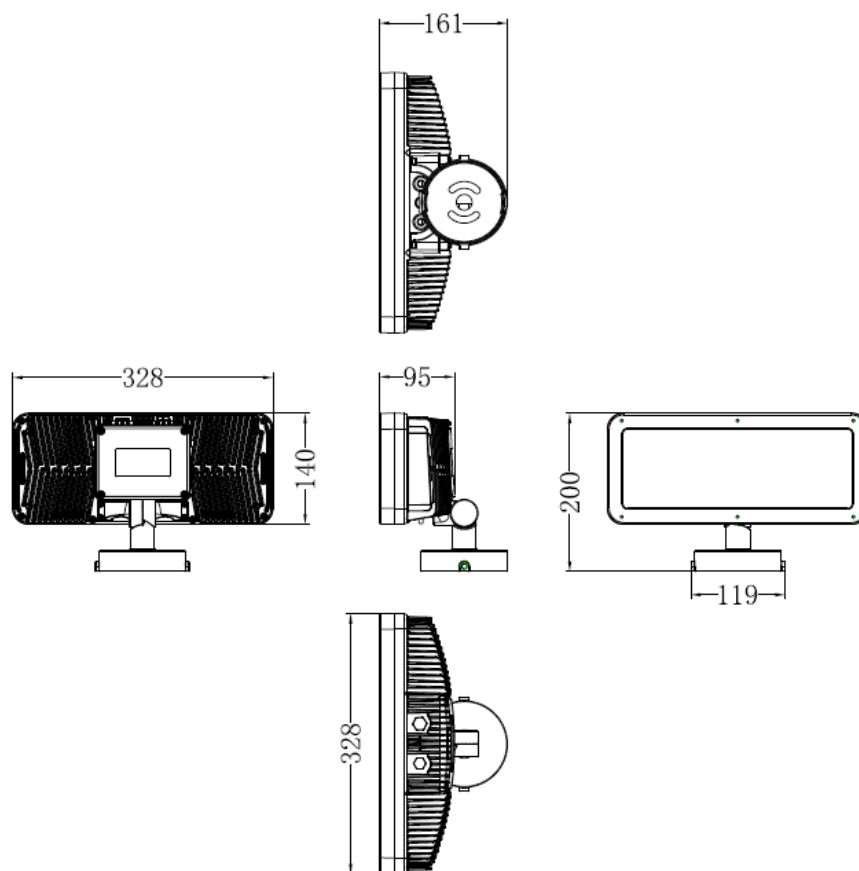
1 PRODUCT

1.1 TECHNICAL SPECIFICATIONS

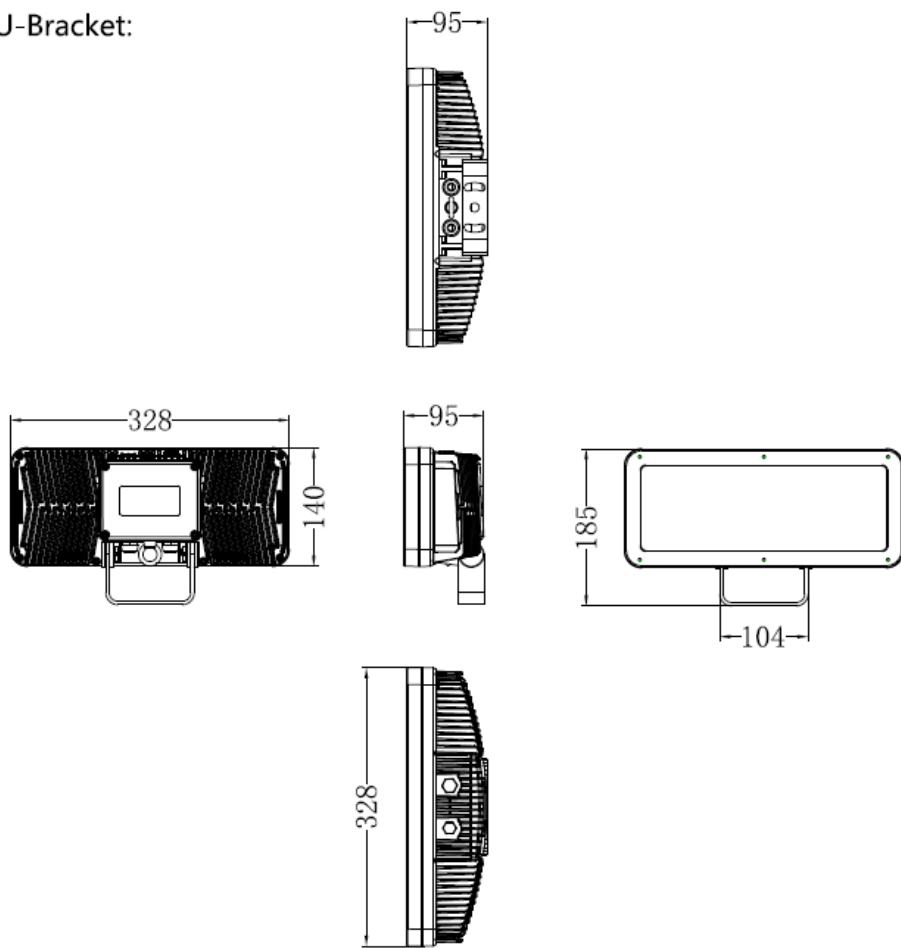
Type	T12
Light source	RGBL/RGBW
Power	150W
Voltage Range	100-277V~, 50/60Hz
Protection	IP67
Operation Temperature	-20℃~45℃
Dimensions	328x161x200mm (Concealed Wire Single-Arm Brackett)
Weight	4.2KG(Concealed Wire Single-Arm Bracket)

Dimension

Concealed Wire Single-Arm Bracket:



U-Bracket:



2 Safety Notes



WARNING !

- To ensure normal and safe operation, the user must comply with all safety regulations and precautions specified in this manual.
- Installation and maintenance of this luminaire shall only be performed by qualified professional technicians.
- This luminaire has been strictly inspected and qualified before delivery. Please operate in accordance with the user manual. Functional failure or damage caused by human error is not covered under warranty.
- After receiving the luminaire, inspect the package for transportation damage first. If the outer package is intact, unpack and check the product for damage incurred during transit. Do not use the product if damaged, and contact our company's staff immediately.
- During operation, the maximum surface temperature of the luminaire housing can reach 70°C (158°F). **Do not touch the housing with bare hands!** Prevent contact with personnel and combustible materials. Do not install the luminaire in areas with risk of accidental contact. Allow the product to cool for at least 15 minutes before handling.
- For replacement, only use lamps and fuses of the same type and electrical ratings.
- When suspending the luminaire, confirm that the mounting structure and fittings can withstand at least 10 times the weight of the fixture.
- Before operation, ensure the housing is securely closed and all screws are tightly fastened. The dedicated safety cable must be correctly fixed to the luminaire prior to use.
- The maximum ambient operating temperature shall not exceed 45°C. Do not operate this product if the ambient temperature (TA) exceeds 45°C (115°F).
- Do not disassemble or repair the product without guidance from professional personnel.
- Luminaire repairs must be carried out by the manufacturer, authorized service agents, or equivalent qualified professionals, or under professional supervision.
- If the external flexible cable or cord of this luminaire is damaged, it must be replaced by the manufacturer, service agent or qualified professionals to eliminate potential hazards.
- This luminaire is prohibited from being installed near high-voltage power lines or strong electric fields.
- The luminaire must be installed in a well-ventilated area with a minimum clearance of 0.5 meters from adjacent surfaces.
- Do not mount the luminaire directly on combustible materials.

CAUTION!

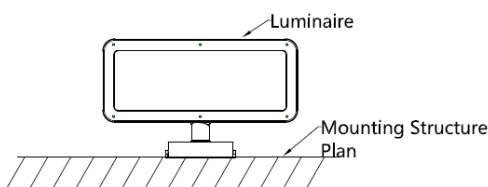
- Please check carefully whether the mains voltage is consistent with the rated voltage marked on the unit, and ensure the operating voltage is within the range specified in the technical parameters.
- Do not touch the power cable with wet hands.
- Before connecting to 110V~220V AC power, confirm that the socket is well grounded. This luminaire must be grounded with a yellow-green two-color earth wire.
- All electrical connections, repairs and maintenance must be carried out by qualified professional personnel.

- Completely cut off the power supply of the luminaire before idle use, cleaning or maintenance work.
- Prevent the power cable from being squeezed, bent or damaged by sharp edges. Inspect the fixture and power cable regularly.
- Always disconnect the power supply when the luminaire is not in use or before cleaning. Unplug the power cable only by the plug. Never pull the cable directly to disconnect the power.
- Do not frequently switch the luminaire on and off in a short time, which will shorten the service life of the product.

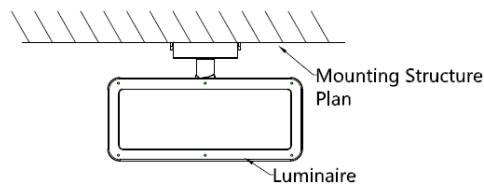
3 INSTALLATION

- ◆ Please confirm the label and mounting position of the luminaire.
- ◆ Do not pull, lift or drag the outgoing cable of the luminaire directly.
- ◆ Handle the luminaire with care during transportation and installation. Avoid collision that may damage the surface coating; do not throw or drop the fixture violently.
- ◆ Place the luminaire at the pre-installed position and adjust its orientation first.
- ◆ Fasten the luminaire to the mounting position with bolts.
- ◆ Adopt M8 bolts of Class 8.8 or above, and fasten securely with self-locking nuts.
- ◆ Each luminaire shall be fixed with no less than two bolts.
- ◆ During installation, the display panel must face upward at all times. Reverse mounting and side mounting are prohibited. Please confirm with our technical personnel for special installation methods.
- ◆ The installation method and connecting accessories shall be customized according to actual site conditions.
- ◆ Before processing mounting accessories or drilling holes, confirm the hole positions and installation details with our technical staff.
- ◆ Please contact our team to obtain the mounting dimension drawing of the luminaire.
- ◆ When installing the luminaire at height, an anti-fall safety cable must be installed.
- ◆ Ensure the safety cable is installed firmly and reliably.
- ◆ Tighten and lock all shackles equipped with nuts.
- ◆ Each luminaire model is matched with a dedicated anti-fall safety cable. Do not mix and use across different models.

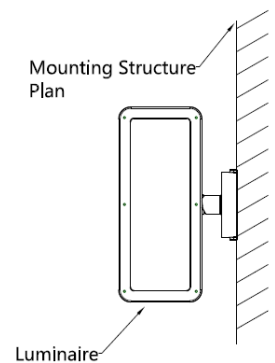
Mounting Diagram Reference



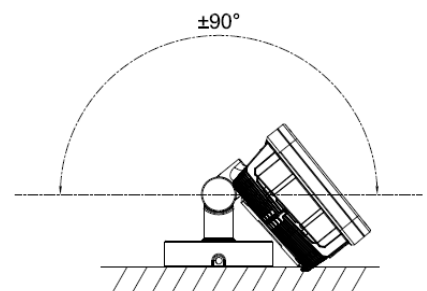
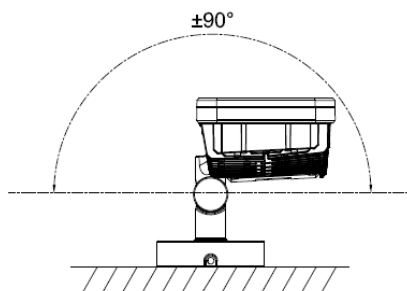
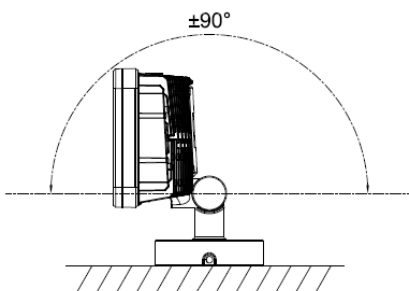
Horizontal Installation Drawing



Horizontal Installation Drawing



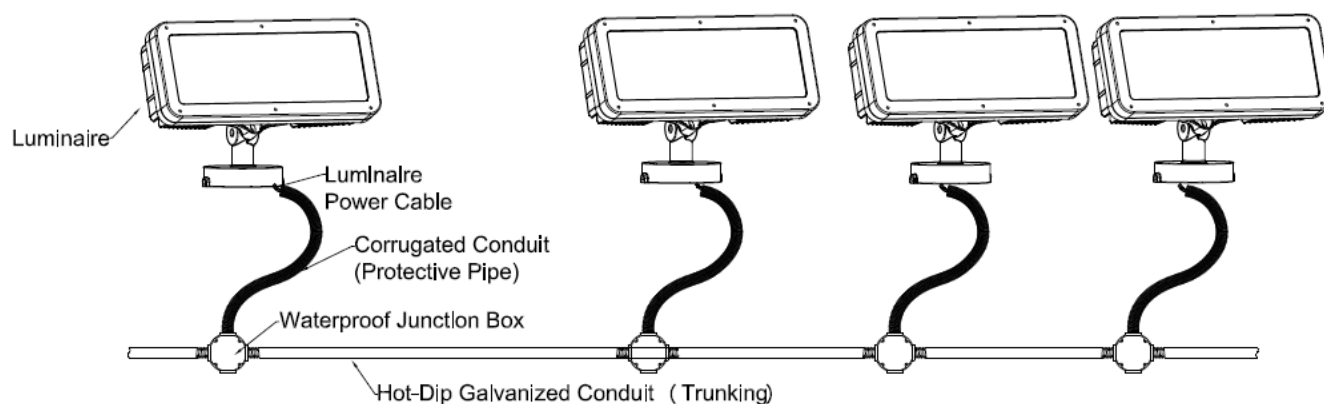
Side Mounting Diagram



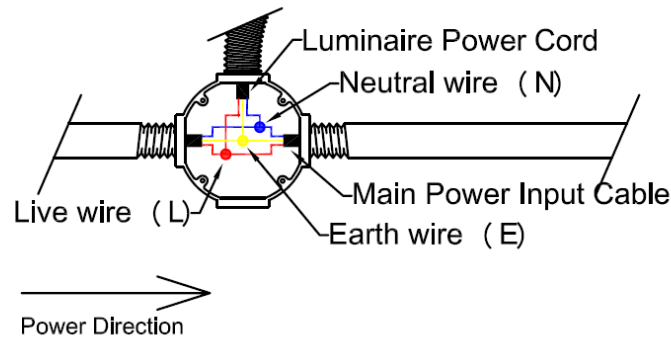
Luminaire Tilt Angle Adjustment

4 POWER CONNECTIONS

- ◆ The input voltage of this product is AC 100-277V, 50/60Hz. Please ensure the input voltage is within this range.
- ◆ All electrical connection work must be performed by qualified and certified installers.
- ◆ In Europe and China, the live wire (L) shall be brown, the neutral wire (N) shall be blue, and the grounding wire shall be green or yellow-green.
- ◆ In the Americas, the live wire (L) shall be black, the neutral wire (N) shall be white, and the grounding wire shall be green or yellow-green.
- ◆ A delayed start function shall be configured for each power supply circuit of the luminaire, with a start delay of 3 seconds per circuit (3s, 6s, 9s...). The quantity of luminaires connected to each circuit shall be determined according to on-site conditions and power rating. No more than 25 luminaires are allowed on each single-phase circuit.
- ◆ Phase voltage balance must be maintained in the electrical system.
- ◆ All wire connections shall ensure reliable contact. Joints must be wrapped with three-layer waterproof protection and installed inside waterproof junction boxes.
- ◆ Power cables and signal cables shall be routed in separate conduits with independent wiring; combined routing in one single conduit is prohibited.
- ◆ All luminaires must be properly grounded. For three-phase power supply, the neutral wire and grounding wire shall not be connected via switches.
- ◆ The power cable of each luminaire shall not be cut shorter than 80 cm.
- ◆ Disconnect the mains power before wiring and installation. Live-line operation is strictly prohibited.
- ◆ All cable connectors shall not be placed on the ground or in waterlogged areas to prevent short circuit caused by water accumulation.
- ◆ All wire joints shall be tinned in advance, followed by three-layer waterproof wrapping, or connected by waterproof junction boxes.
- ◆ Before powering on the luminaires, confirm correct connection of power and signal lines, and ensure no on-site construction work is in progress.
- ◆ Please refer to the electrical connection diagram for all wiring operations.



Electrical Connection Diagram I



Electrical Connection Diagram II

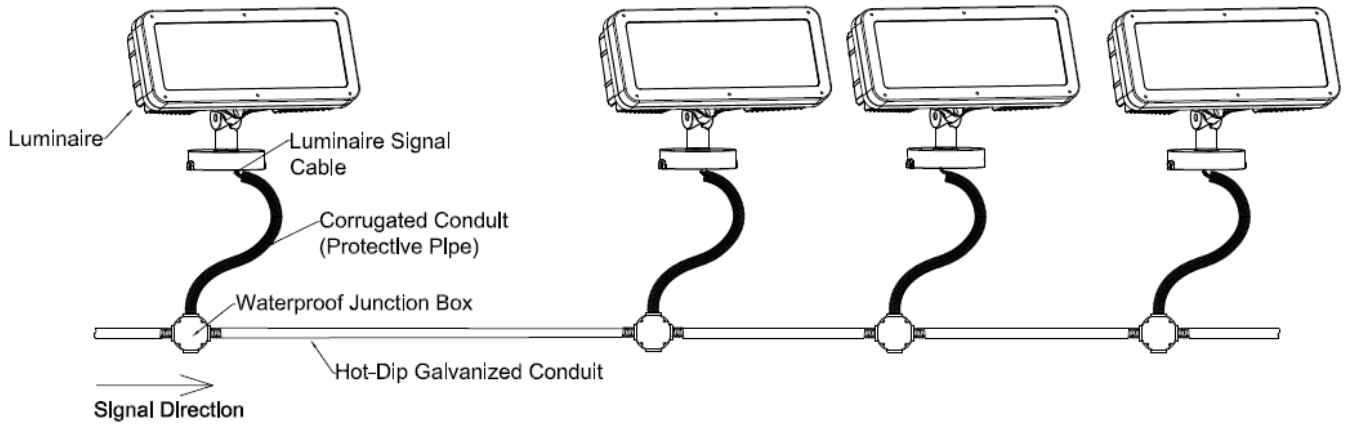
5 Data network requirements

- ◆ The luminaire has two types of signal outlet cables: 4-core & 1-screened bare wire and Y-type 1-to-2 male-female cable.
- ◆ If the luminaire is fitted with a Y-type 1-to-2 male-female signal cable, the male and female connectors shall not be cut off. For signal connection of the entire control system, comply with the rule: male connector for signal input, female connector for signal output.
- ◆ All joints of signal male and female connectors must be fully tightened and wrapped with one layer of waterproof adhesive tape.
- ◆ For luminaires adopting 4-core & 1-screened bare signal wire, the cable shall not be cut to less than 80 cm in length.
- ◆ When the DMX signal cable length between the DMX console and luminaires, or between individual luminaires, exceeds 60 meters, an additional signal amplifier must be installed.
- ◆ Signal amplifiers shall be arranged with a spacing limit of 60 meters. If the distance between two adjacent amplifiers exceeds 60 meters, another amplifier shall be added, regardless of whether luminaires are connected in between.
- ◆ Signal amplifier layout shall follow the limit of maximum 20 luminaires per segment. Once 20 luminaires are connected between two amplifiers, a new amplifier is required even if the distance is within 60 meters.
- ◆ The laying and connection of all signal amplifiers in the whole control system shall strictly follow the combined principle: max. 20 luminaires or max. 60 meters.
- ◆ The installation position and quantity of amplifiers shall be determined according to on-site conditions and actual signal strength.
- ◆ Signal cables and power cables shall be routed in separate conduits and wired independently. Shared conduit routing is prohibited to avoid signal interference.
- ◆ Signal cables are forbidden to connect with high-voltage power, otherwise it will cause permanent damage to the luminaire.
- ◆ The default DMX address of the first luminaire is set to 001. The address calculation formula for subsequent luminaires: $(X-1) \times N + 1$ (X = luminaire sequence number; N = channel quantity). Example: If the first luminaire address is 001 with 4 channels, the address of the 10th luminaire is 37, i.e. DMX address 037.
- ◆ The DMX address of each luminaire must be consistent with the setting of the DMX console.

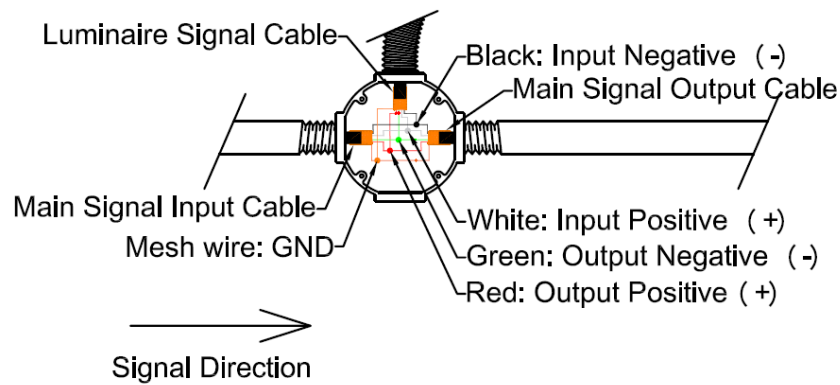
Mismatched addresses will lead to loss of control or abnormal random flickering.

- ◆ DMX addresses can be reused as required.
- ◆ DMX address codes can be set to any value within the range of 001 to 512.

4-Core 1-Shielded Bare Wire Signal Connection Diagram

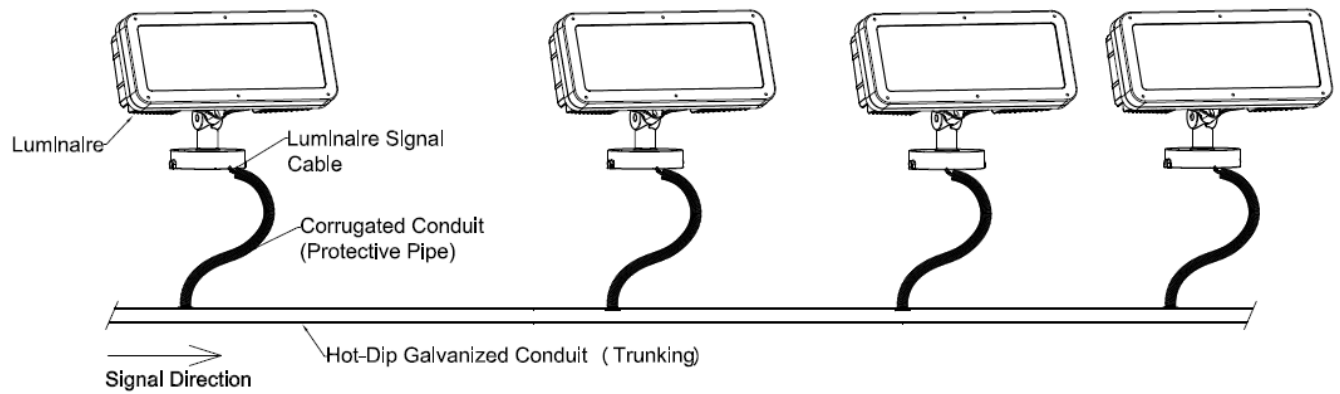


4-Core 1-Shielded Bare Wire Signal Connection Diagram I

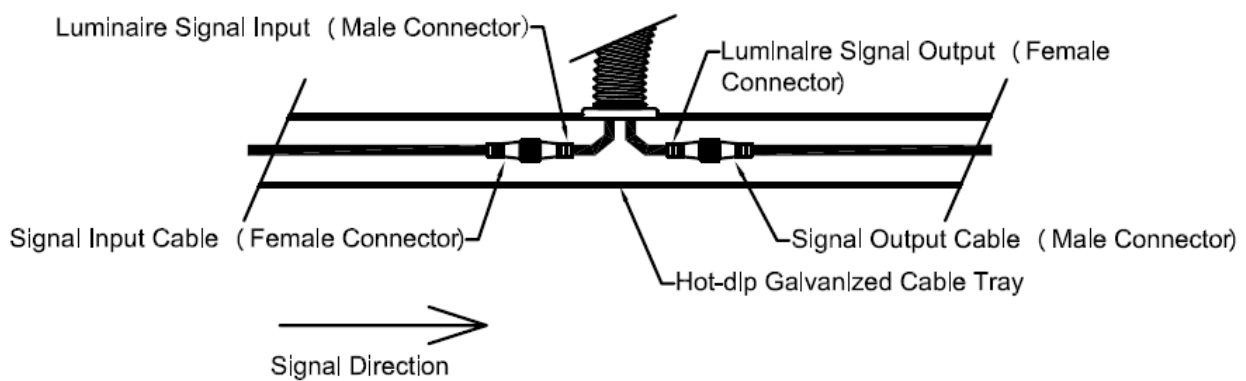


4-Core 1-Shielded Bare Wire Signal Connection Diagram II

Y-Type 1-to-2 Male-Female Cable Signal Connection Diagram



Y-Type 1-to-2 Male-Female Cable Signal Connection Diagram I



Y-Type 1-to-2 Male-Female Cable Signal Connection Diagram II

6 USING A DMX512 CONTROLLER

6.1 DMX CONTRO

Note: This product has seven DMX512 channel configurations: ARC1, ARC1+D, ARC2, ARC2+D, SOLID, ARC FULL, SPECIAL2.

DMX Modes		SOLID	ARC1	ARC1+D	ARC2	ARC2+D
CHANNEL	VALUE	FUNCTION				
1	0-255	ALL LED	RED	DIMMER	RED	DIMMER
2	0-255		GREEN	RED	GREEN	RED
3	0-255		BLUE	GREEN	BLUE	GREEN
4	0-255			BLUE	LIME/CCT WHITE	BLUE
5	0-255					LIME/CCT WHITE

ARC FULL	SPECIAL2	VALUE	FUNCTION
CHANNEL			
1	1	0-255	DIMMER
2	2	0-255	RED
3	3	0-255	GREEN
4	4	0-255	BLUE
	5	0-255	LIME/CCT WHITE
5	6	PRESET COLOR	
		0-10	NO FUNCTION
		11-255	PRESET COLOR
6	7	CCT	
		0-9	NO FUNCTION
		10	1800K
		10-25	1800-2200K Linear transition
		25	2200K
		25-40	2200-2700K Linear transition
		40	2700K
		40-55	2700-3000K Linear transition
		55	3000K
		55-70	3000-3200K Linear transition
		70	3200K
		70-85	3200-4000K Linear transition
		85	4000K
		85-100	4000-4500K Linear transition
		100	4500K
		100-115	4500-5000K Linear transition
		115	5000K
		115-130	5000-5600K Linear transition
		130	5600K
		130-145	5600-6000K Linear transition

		145	6000K
		145-160	6000-6500K Linear transition
		160	6500K
		160-175	6500-7000K Linear transition
		175	7000K
		175-190	7000-8000K Linear transition
		190	8000K
		190-205	8000-10000K Linear transition
		205-255	10000K
7	8	STROBE	
		0-9	NO FUNCTION
		10-255	1-25Hz
8	9	CONTROL (EXECUTE AFTER 3 SECONDS)	
		000-010	NO FUNCTION
		011-100	RESERVED
		101-110	DIMMER OFF
		111-120	DIMMER DIM4
		121-130	LIME MODE (Default)
		131-140	LIME TO 1800K
		141-150	LIME TO 2200K
		151-160	LIME TO 2700K
		161-170	LIME TO 3000K
		171-180	LIME TO 3200K
		181-190	LIME TO 4000K
		191-200	LIME TO 4500K
		201-210	LIME TO 5000K
		211-220	LIME TO 5600K
		221-230	LIME TO 6000K
		231-240	LIME TO 6500K
		241-245	LIME TO 7000K
		246-250	LIME TO 8000K
		251-255	LIME TO 10000K

Annex 1

PRESET COLOR	Value	Color Names		x	y
	0-10	NO FUNCTION			
	11-15	RESERVE	Loving Amber	0.407	0.321
COLOR 1	16-20	R40	Light Salmon	0.499	0.321
COLOR 2	21-25	L24	Scarlet	0.561	0.296
COLOR 3	26-30	L164	Flame Red	0.659	0.302
	31-35	RESERVE	Easy White	0.389	0.344
	36-40	RESERVE	Warm Peach	0.448	0.353
COLOR 4	41-45	L08	Dark Salmon	0.498	0.347
COLOR 5	46-50	L25	Sunset Red	0.566	0.359
	51-55	RESERVE	Medium Bastard Amber	0.37	0.335
COLOR 6	56-60	L237	CID(To Tungsten)	0.43	0.365
COLOR 7	61-65	R321	Soft Golden Amber	0.477	0.406
COLOR 8	66-70	L652	Urban Sodium	0.535	0.399
	71-75	RESERVE	LCT Yellow(Y1)	0.34	0.363
COLOR 9	76-80	L765	LEE Yellow	0.389	0.412
COLOR 10	81-85	L513	Ice And A Slice	0.38	0.447
	86-90	RESERVE	Spring Yellow	0.41	0.502
	91-95	RESERVE	LEE Plus Green	0.324	0.388
	96-100	RESERVE	CalColor 30 Green	0.318	0.44
	101-105	RESERVE	Fern Green	0.234	0.543
COLOR 11	106-110	L90	Dark Yellow Green	0.184	0.641
	111-115	RESERVE	LEE Fluorescent3600K	0.286	0.37
COLOR 12	116-120	R92	Tuquoise	0.235	0.36
	121-125	RESERVE	Kelly Green	0.185	0.459
	126-130	RESERVE	Forest Green	0.162	0.496
	131-135	RESERVE	Cosmetic Aqua Blue	0.3	0.318
COLOR 13	136-140	L728	Steel Green	0.256	0.302
COLOR 14	141-145	L117	Steel Blue	0.223	0.278
COLOR 15	146-150	L354	Special Steel Blue	0.173	0.265
	151-155	RESERVE	Paler Lavender	0.284	0.284
COLOR 16	156-160	L501	New Colour Blue	0.246	0.249
COLOR 17	161-165	L174	Dark Steel Blue	0.204	0.205
	166-170	RESERVE	Daylight Blue	0.159	0.158
	171-175	RESERVE	Pale Lavender	0.288	0.254
	176-180	RESERVE	Surprise Pink	0.24	0.183
COLOR 18	181-185	L142	Pale Violet	0.209	0.148
	186-190	RESERVE	Perfect Lavender	0.177	0.07
	191-195	RESERVE	Light Pink	0.335	0.289
COLOR 19	196-200	L794	Pretty'n Pink	0.335	0.251
COLOR 20	201-205	L328	Follies Pink	0.335	0.18
	206-210	RESERVE	Magical Magenta	0.327	0.138
	211-215	RESERVE	Pale Rose	0.35	0.318
COLOR 21	216-220	L127	Smokey Pink	0.397	0.265
COLOR 22	221-225	L192	Flesh Pink	0.41	0.237
	226-230	RESERVE	Special Rose Pink	0.465	0.193
	231-235	RESERVE	Moroccan Pink	0.378	0.324
COLOR 23	236-240	L157	Pink	0.457	0.272
COLOR 24	241-245	R332	Cherry Rose	0.489	0.295
	246-250	RESERVE	Cool LED Bright Pink	0.57	0.263
	251-255	NO FUNCTION			



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