

# DIM FLEX WIRING SYSTEM

Americas (M12 1-Channel)



## MODULAR 0-10V DC DIMMING WIRING SYSTEM FOR FLUENCE SINGLE-CHANNEL LED LIGHT FIXTURES

### FEATURES

- Dramatic pre-wire, installation, and clean-up time and labor cost savings over traditional light fixture 0-10 V DC control wiring
- Plug-and-play connectors for error-free installation and easy maintenance
- Secure and reliable connections
- Suitable for wet locations
- 1 year limited warranty

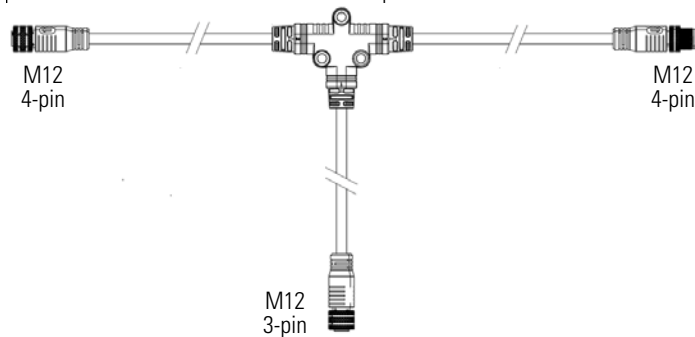


### DIM FLEX WIRING SYSTEM COMPONENTS

#### T-CONNECTOR CABLE

Connects Main Trunk to Power Supply of Light Fixtures

1-T 5 ft & 10 ft | 4-T 20 ft



#### TRUNK EXTENSIONS

Extends length of T-Connector Trunk

5 FT | 12 FT



#### TRUNK TERMINATION

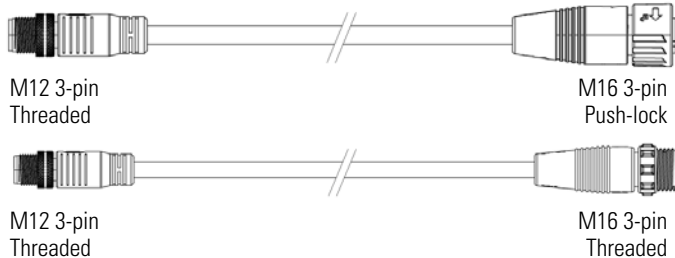
Ends the Trunk Cable Run at the Last Fixture with or without a Shield Ground to the Power Supply



#### ACCESSORIES

##### ADAPTERS

Adapts a Power Supply with Push-Lock or Threaded M16 Dimming Port to DC Flex M12



#### PIGTAIL TRUNK EXTENSION

Begins the Modular Wire Run at the Dimmer or Controller

5 ft | 75 ft



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### REGIONAL COMMERCIAL CODE LEGEND

	Product	Cable Info	Cable Function	-	# Connector Pins	Connector1 (Input)	C1 Type	# Connector Pins	Connector2 (Output)	C2 Type	Length in Meters	Packing
DESCRIPTION	DF - Dim Flex Wiring	U - UL Compliant	1T - 1T-Branch Cable 4T - 4T-Branch Cable ET - Trunk Extension PT - Pigtail Trunk Extension TT - Trunk Termination TG - Trunk Drop Termination (Drain Grounded)	-	X - N/A (Leads) 1 - 1 Pin 2 - 2 Pins 3 - 3 Pins 4 - 4 Pins	P6 - Push Lock M16 P9 - Push Lock M19 T2 - Screw Lock (Threaded) M12 T6 - Screw Lock (Threaded) M16 L3 - 3-wire Leads (Pigtails)	X - N/A (Leads) M - Male F - Female	1 - 1 Pin 2 - 2 Pins 3 - 3 Pins 4 - 4 Pins	P6 - Push Lock M16 P9 - Push Lock M19 T2 - Screw Lock (Threaded) M12 T6 - Screw Lock (Threaded) M16	X - N/A (Leads) M - Male F - Female	XXX - No Cable Length ## - Length	S - Single Pack B - Bulk Pack
EXAMPLE	DF	U	ET	-	4	T2	M	4	T2	F	3.6	S

### ORDERING INFORMATION

Description	Function (Refer to Wiring Diagram)	Regional Commercial Code (RCC)	Ordering PN 12NC Single Pack (S)	Ordering PN 12NC Bulk Pack (B)	Bulk Pack Carton QTY
4-T Branch Dimming Cable, 20 FT Trunk, 1 FT Drop	Connects 4 fixtures to the dimming control line	DFU4T-4T2M3T2F6.0	9124 017 01727	9124 016 56184	5
1-T Branch Dimming Cable, 5 FT Trunk, 1 FT Drop	Connects 1 fixture to the dimming control line	DFU1T-4T2M3T2F1.5	9124 017 01726	9124 016 56183	10
1-T Branch Dimming Cable, 10 FT Trunk, 1 FT Drop	Connects 1 fixture to the dimming control line	DFU1T-4T2M3T2F3.0	9124 017 01725	9124 016 56182	5
Pigtail Trunk Extension Cable, 5 FT	Begins the dimming control line at the dimmer or controller	DFUPT-XL3X4T2F1.5	9124 017 01731	9124 016 56188	10
Pigtail Trunk Extension Cable, 75 FT	Begins the dimming control line at the dimmer or controller	DFUPT-XL3X4T2F22.	9124 017 01730	9124 016 56187	3
Trunk Extension Cable, 5 FT	Extends length of trunk to first or next T-cable	DFUET-4T2M4T2F1.5	9124 017 01733	9124 016 56190	10
Trunk Extension Cable, 12 FT	Extends length of trunk to first or next T-cable	DFUET-4T2M4T2F3.6	9124 017 01732	9124 016 56189	5
Trunk Termination Cable with Ground, 3.5 FT	Ends the dimming control line at the last fixture. Shield grounded to power supply	DFUTG-4T2M3T2F1.0	9124 017 01736	9124 016 56193	10
Trunk Termination Cable without Ground, 3.5 FT	Ends the dimming control line at the last fixture. Shield must be grounded to PE	DFUTT-4T2M3T2F1.0	9124 017 01734	9124 016 56191	10
Dimming Adapter Cable, M12 Screw Lock to M16 Push Lock	Adapts T-cable Drop or Trunk Termination to Push Lock M16 Dimming Port	ACA-XXU3P6FT2M0.1	9124 017 01728	9124 016 56185	20
Dimming Adapter Cable, M12 Screw Lock to M16 Screw Lock	Adapts T-cable Drop or Trunk Termination to Screw Lock M16 Dimming Port	ACA-XXU3T6FT2M0.1	9124 017 01729	9124 016 56186	20



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DESCRIPTION	Product	Cable Info	Cable Function	# Connector Pins	Connector1 (Input)	C1 Type	# Connector Pins	Connector2 (Output)	C2 Type	Length in Meters	Packing
	<b>DF</b> - Dim Flex Wiring	<b>U</b> - UL Compliant	<b>1T</b> - 1T-Branch Cable <b>4T</b> - 4T-Branch Cable <b>ET</b> - Trunk Extension <b>PT</b> - Pigtail Trunk Extension <b>TT</b> - Trunk Termination <b>TG</b> - Trunk Drop Termination (Drain Grounded)	<b>X</b> - N/A (Leads) <b>1</b> - 1 Pin <b>2</b> - 2 Pins <b>3</b> - 3 Pins <b>4</b> - 4 Pins	<b>P6</b> - Push Lock M16 <b>P9</b> - Push Lock M19 <b>T2</b> - Screw Lock (Threaded) M12 <b>T6</b> - Screw Lock (Threaded) M16 <b>L3</b> - 3-wire Leads (Pigtails)	<b>X</b> - N/A (Leads) <b>M</b> - Male <b>F</b> - Female	<b>1</b> - 1 Pin <b>2</b> - 2 Pins <b>3</b> - 3 Pins <b>4</b> - 4 Pins	<b>P6</b> - Push Lock M16 <b>P9</b> - Push Lock M19 <b>T2</b> - Screw Lock (Threaded) M12 <b>T6</b> - Screw Lock (Threaded) M16	<b>X</b> - N/A (Leads) <b>M</b> - Male <b>F</b> - Female	<b>XXX</b> - No Cable Length <b>##</b> - Length	<b>S</b> - Single Pack <b>B</b> - Bulk Pack
EXAMPLE	<b>DF</b>	<b>U</b>	<b>ET</b>	<b>4</b>	<b>T2</b>	<b>M</b>	<b>4</b>	<b>T2</b>	<b>F</b>	<b>3.6</b>	<b>S</b>

### SPECIFICATIONS

Description	Regional Commercial Code (RCC)	Cable Length	Max DC Input Voltage	Max DC Input Current	Input Connector	Output Connector	T-Drop Connector	Cable Type
4-T Branch Dimming Cable, 20 FT Trunk, 1 FT Drop	DFU4T-4T2M3T2F6.0	20.0 ft 6096 mm	12 V	7 A	Push Lock Male M25 3-pin	Push Lock Female M25 3-pin	Screw Lock Female M12 3-pin	AWM UL 21996/UL 22190 300 V 2 x 20 AWG/ 0.5 mm <sup>2</sup> , Plus Drain
1-T Branch Dimming Cable, 5 FT Trunk, 1 FT Drop	DFU1T-4T2M3T2F1.5	5 ft 1524 mm						
1-T Branch Dimming Cable, 10 FT Trunk, 1 FT Drop	DFU1T-4T2M3T2F3.0	10 ft 3048 mm						
Pigtail Trunk Extension Cable, 5 FT	DFUPT-XL3X4T2F1.5	5.0 ft 1524 mm	12 V	7 A	Pigtails	Screw Lock Female M12 4-pin		
Pigtail Trunk Extension Cable, 75 FT	DFUPT-XL3X4T2F2.2	75.0 ft 22860 mm						
Trunk Extension Cable, 5 FT	DFUET-4T2M4T2F1.5	5.0 ft 1524 mm			Screw Lock Male M12 4-pin	Screw Lock Female M12 4-pin		
Trunk Extension Cable, 12 FT	DFUET-4T2M4T2F3.6	12.0 ft 3658 mm						
Trunk Termination Cable with Ground, 3.5 FT	DFUTG-4T2M3T2F1.0	42.0 in 1064 mm					Screw Lock Female M12 3-pin	
Trunk Termination Cable without Ground, 3.5 FT	DFUTT-4T2M3T2F1.0	42.0 in 1064 mm						
Dimming Adapter Cable, M12 Screw Lock to M16 Push Lock	ACA-XXU3P6FT2M0.1	6.0 in 152 mm			Screw Lock Male M12 3-pin	Push Lock Female M16 3-pin		
Dimming Adapter Cable, M12 Screw Lock to M16 Screw Lock	ACA-XXU3T6FT2M0.1	6.0 in 152 mm					Screw Lock Female M16 3-pin	



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### PACKAGE INFORMATION

Description	Regional Commercial Code (RCC)	Ordering PN 12NC	Carton QTY	Weight	Length	Width	Height	HTS Tariff Code
4-T Branch Dimming Cable, 20 FT Trunk, 1 FT Drop	DFU4T-4T2M3T2F6.0S	9124 017 01727	1	3.92 lb 1.78 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	8536.69.8000
	DFU4T-4T2M3T2F6.0B	9124 016 56184	5	19.18 lb 8.70 kg	13.5" 34.3 cm	13.0" 33 cm	9.0" 22.9 cm	
1-T Branch Dimming Cable, 5 FT Trunk, 1 FT Drop	DFU1T-4T2M3T2F1.5S	9124 017 01726	1	0.71 lb 0.32 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFU1T-4T2M3T2F1.5B	9124 016 56183	10	6.61 lb 3.00 kg	13.5" 34.3 cm	13.0" 33 cm	9.0" 22.9 cm	
1-T Branch Dimming Cable, 10 FT Trunk, 1 FT Drop	DFU1T-4T2M3T2F3.0S	9124 017 01725	1	1.52 lb 0.69 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFU1T-4T2M3T2F3.0B	9124 016 56182	5	7.28 lb 3.30 kg	13.5" 34.3 cm	13.0" 33 cm	9.0" 22.9 cm	
Pigtail Trunk Extension Cable, 5 FT	DFUPT-XL3X4T2F1.5S	9124 017 01731	1	0.37 lb 0.17 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFUPT-XL3X4T2F1.5B	9124 016 56188	10	3.53 lb 1.60 kg	13.5" 34.3 cm	13.0" 33 cm	9.0" 22.9 cm	
Pigtail Trunk Extension Cable, 75 FT	DFUPT-XL3X4T2F22.S	9124 017 01730	1	4.56 lb 2.07 kg	15.5" 39.4 cm	5.0" 12.7 cm	15.5" 39.4 cm	
	DFUPT-XL3X4T2F22.B	9124 016 56187	3	11.49 lb 5.21 kg	13.5" 34.3 cm	13.0" 33 cm	9.0" 22.9 cm	
Trunk Extension Cable, 5 FT	DFUET-4T2M4T2F1.5S	9124 017 01733	1	0.40 lb 0.18 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFUET-4T2M4T2F1.5B	9124 016 56190	10	3.75 lb 1.7 kg	13.5" 34.3 cm	13.0" 33 cm	9.0" 22.9 cm	
Trunk Extension Cable, 12 FT	DFUET-4T2M4T2F3.6S	9124 017 01732	1	0.88 lb 0.40 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFUET-4T2M4T2F3.6B	9124 016 56189	5	3.86 lb 1.75 kg	15.5" 39.4 cm	5.0" 12.7 cm	15.5" 39.4 cm	
Trunk Termination Cable with Ground, 3.5 FT	DFUTG-4T2M3T2F1.0S	9124 017 01736	1	0.33 lb 0.15 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFUTG-4T2M3T2F1.0B	9124 016 56193	10	3.09 lb 1.40 kg	15.5" 39.4 cm	5.0" 12.7 cm	15.5" 39.4 cm	
Trunk Termination Cable without Ground, 3.5 FT	DFUTT-4T2M3T2F1.0S	9124 017 01734	1	0.33 lb 0.15 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	DFUTT-4T2M3T2F1.0B	9124 016 56191	10	3.09 lb 1.40 kg	15.5" 39.4 cm	5.0" 12.7 cm	15.5" 39.4 cm	
Dimming Adapter Cable, M12 Screw Lock to M16 Push Lock	ACA-XXU3P6FT2M0.1S	9124 017 01728	1	0.30 lb 0.14 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	ACA-XXU3P6FT2M0.1B	9124 016 56186	20	3.75 lb 1.70 kg	15.5" 39.4 cm	5.0" 12.7 cm	15.5" 39.4 cm	
Dimming Adapter Cable, M12 Screw Lock to M16 Screw Lock	ACA-XXU3T6FT2M0.1S	9124 017 01729	1	0.21 lb 0.095 kg	16.0" 40.7 cm	10.5" 26.7 cm	1.5" 3.9 cm	
	ACA-XXU3T6FT2M0.1B	9124 016 56185	20	5.51 lb 2.50 kg	15.5" 39.4 cm	5.0" 12.7 cm	15.5" 39.4 cm	

### MECHANICAL DRAWINGS

Regional Commercial Code (RCC)	Pin Config. Input Connector	Mechanical Drawing	Pin Config. Output Connector	Pin Config. T-Drop Connector
DFU4T-4T2M3T2F6.0				



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### MECHANICAL DRAWINGS

Regional Commercial Code (RCC)	Pin Config. Input Connector	Mechanical Drawing	Pin Config. Output Connector	Pin Config. T-Drop Connector
DFU1T-4T2M3T2F1.5	M12/M 4-pin Pin 2 NC Pin 1 Dim (-) Pin 3 Dim (+) Pin 4 NC		M12/F 4-pin Pin 1 Dim (-) Pin 2 NC Pin 4 NC Pin 3 Dim (+)	M12/F 3-pin Pin 3 Dim (+) Pin 4 NC Pin 1 Dim (-)
DFU1T-4T2M3T2F3.0	M12/M 4-pin Pin 2 NC Pin 1 Dim (-) Pin 3 Dim (+) Pin 4 NC		M12/F 4-pin Pin 1 Dim (-) Pin 2 NC Pin 4 NC Pin 3 Dim (+)	M12/F 3-pin Pin 3 Dim (+) Pin 4 NC Pin 1 Dim (-)
DFUPT-XL3X4T2F1.5	Red = Dim (+) Black = Dim (-) Bare Wire = Drain		M12/F 4-pin Pin 1 Dim (-) Pin 2 NC Pin 4 NC Pin 3 Dim (+)	N/A
DFUPT-XL3X4T2F2.2	Red = Dim (+) Black = Dim (-) Bare Wire = Drain		M12/F 4-pin Pin 1 Dim (-) Pin 2 NC Pin 4 NC Pin 3 Dim (+)	N/A
DFUET-4T2M4T2F1.5	M12/M 4-pin Pin 2 NC Pin 1 Dim (-) Pin 3 Dim (+) Pin 4 NC		M12/F 4-pin Pin 1 Dim (-) Pin 2 NC Pin 4 NC Pin 3 Dim (+)	N/A
DFUET-4T2M4T2F3.6	M12/M 4-pin Pin 2 NC Pin 1 Dim (-) Pin 3 Dim (+) Pin 4 NC		M12/F 4-pin Pin 1 Dim (-) Pin 2 NC Pin 4 NC Pin 3 Dim (+)	N/A
DFUTG-4T2M3T2F1.0	M12/M 4-pin Pin 2 NC Pin 1 Dim (-) Pin 3 Dim (+) Pin 4 NC		M12/F 3-pin Pin 3 Dim (+) Pin 4 NC Pin 1 Dim (-)	N/A
DFUTT-4T2M3T2F1.0	M12/M 4-pin Pin 2 NC Pin 1 Dim (-) Pin 3 Dim (+) Pin 4 NC		M12/F 3-pin Pin 3 Dim (+) Pin 4 NC Pin 1 Dim (-)	N/A
ACA-XXU3P6FT2M0.1	M12/M 3-pin Pin 3 Dim (+) Pin 1 Dim (-) Pin 4 N/C		M16/F 3-pin Pin 1 Dim (-) Pin 3 Dim (+) Pin 2 N/C	N/A
ACA-XXU3T6FT2M0.1	M12/M 3-pin Pin 3 Dim (+) Pin 1 Dim (-) Pin 4 N/C		M16/F 3-pin Pin 1 Dim (-) Pin 3 Dim (+) Pin 2 N/C	N/A



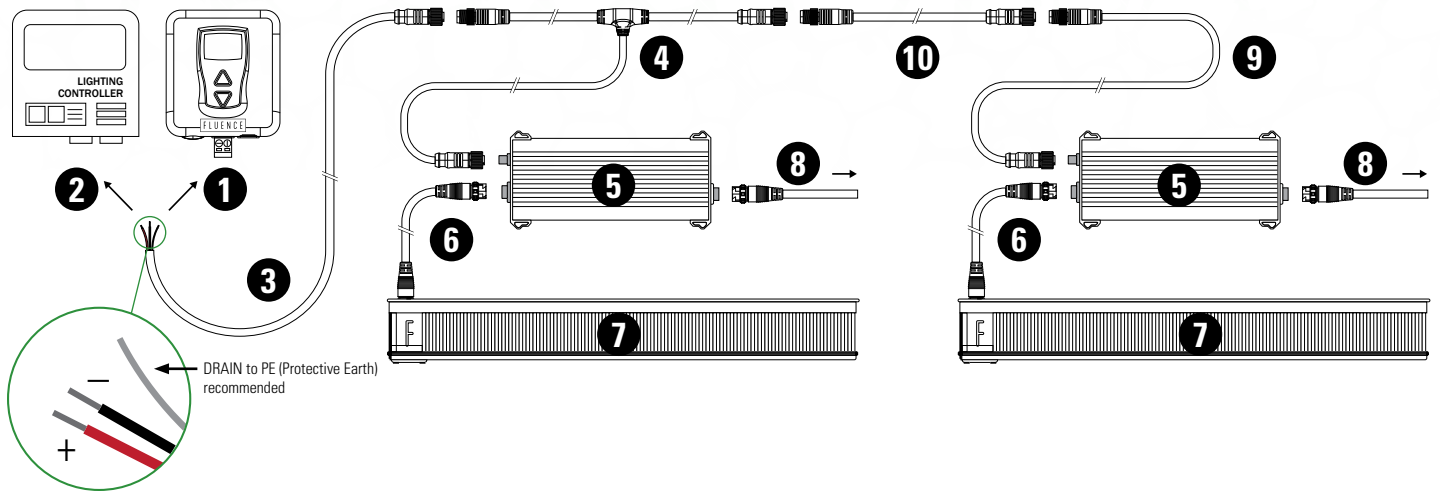
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# DIM FLEX WIRING SYSTEM

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### WIRING DIAGRAM: 0-10V Dimmer Channel to Multiple Fluence LED Light Fixtures



### COMPONENTS

- 1** Fluence Dimmer (DM2AA-1CC2TBMTAP)
- 2** Third Party Light Controller/Dimmer
- 3** DIM Flex Pigtail Trunk Extension  
5 FT (DFUPT-XL3X4T2F1.5) or  
75 FT (DFUPT-XL3X4T2F22.)
- 4** DIM Flex T-Connector Cable to Light Fixture  
1-T 5 FT (DFU1T-4T2M3T2F1.5) or  
1-T 10 FT (DFU1T-4T2M3T2F3.0) or  
4-T 20 FT (DFU4T-4T2M3T2F6.0)
- 5** Power Supply for Light Fixture
- 6** DIM Power Extension Cable to Light Fixture
- 7** Light Fixture
- 8** AC Power Cable to Power Supply
- 9** DIM Flex Trunk Termination to last Light Fixture  
WITH Shield Ground (DFUTG-4T2M3T2F1.0) or  
WITHOUT Shield Ground (DFUTT-4T2M3T2F1.0)
- 10** DIM Flex Trunk Extension  
5 FT (DFUET-4T2M4T2F1.5) or  
12 FT (DFUET-4T2M4T2F3.6)

Need assistance or have questions? Fluence will design your DIM Flex Dimming Wiring System layout for you!

Contact us at: [support@fluence-led.com](mailto:support@fluence-led.com)



Maximum Quantity Connected Light Fixtures (per branch)	Maximum Distance First to Last Light Fixtures (per branch)
Up to 50 Light Fixtures	200-300 ft 61-91.5 m

### NOTES

- A.** Connector Adapter (ACA-XXU3P6FT2M0.1) is required for PSU1 or PSE2 Power Supply with an M16 Push Lock dimming port.
- B.** Connector Adapter (ACA-XXU3T6FT2M0.1) is required for RAZR 234, RAY, SPYDRx, and SPYDRx PLUS.
- C.** Refer to 3rd Party controller/dimmer manufacturer specifications and installation instructions for wiring details when using a controller/dimmer other than by Fluence.
- D.** The maximum quantity is up to 50 connected light fixtures per branch. The rated mA capacity of the light controller/dimmer used may support less fixtures per branch. Please refer to the light controller/dimmer specifications for the application.
- E.** A single point of shield grounding to earth is recommended. This is accomplished by installing a grounded termination cable (DFUTG-4T2M3T2F1.0) to the last fixture in the channel (see # 9). Only the DIM (+) and DIM (-) wires are connected at the leader cable, and the drain wire of the leader cable must be cut. If the ungrounded termination cable (DFUTT-4T2M3T2F1.0) is used, then connect the drain wire of the leader cable to PE (Protective Earth).

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