



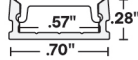
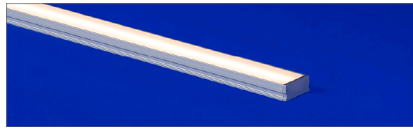
# ESSENTIALS THIN-FLAT (01)

## WARM DIM APPLICATIONS

### 24VDC Linear Fixtures - Surface & Recessed



410.2 & 410.16  
Closet Rated  
in 1.5HE



- Thin, low-profile surface mount linear fixture
- Choose from diffused, polar, frosted, or clear lens options for varying diode visibility and beam angles
- Mounting options include stainless steel clips, magnets, and low-profile magnet mounts
- Suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot per NEC regulations
- Can be suitable for exterior use when specified as wet, contact factory for more information
- Used in applications to provide warmer CCTs as the light is dimmed
- When using DALI and DMX power supplies, LED wattage must be doubled

#### INFORMATION REQUIRED FOR LIGHTING SCHEDULE

1	2	3	4	5	6
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS
				STD	

#### ADDITIONAL INFORMATION REQUIRED TO ORDER

7	8	9	10	11	12	13	14	15
WIRE INPUT/ OUTPUT	CONNECTOR/ WIRE IN	CONNECTOR/ WIRE OUT	WIRE COLOR	WIRE TYPE	MOUNTING	FINISH	LENGTH (IN)	EXACT/ OPTIMAL

Sample Part Number: **TH1WD-6.0-19/30-DRY-STD-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E**

1	PRODUCT	2	WATTS/FT	3	CCT	4	RATED	5	EFFICIENCY	6	LENS
	<b>TH1WD</b>  LED engine is built with 2 wires suitable for phase dimming control. See following pages for compatible power supplies.		<b>6.0</b> 6.0W/ft		<b>19/27</b> 1900K/2700K <b>19/30</b> 1900K/3000K		<b>DRY</b> IP20 <b>WET</b> IP67  Can be suitable for exterior use, contact factory for more information WET rated strips are only compatible without a lens		<b>STD</b> Standard		<b>DF</b> Diffused <b>PR</b> Polar <b>FR</b> Frosted <b>CL</b> Clear <b>N/A</b> For wet rated LED Strips  For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages. WET rated strips are only compatible without a lens.
	<b>TH1DW</b> <b>TH1DW-USA</b>  Select USA option for BAA and BABA projects. Only DRY or WET ratings apply.  LED engine is built with 3 wires requiring 0-10V, DMX or DALI control. Using DALI, DMX, or non QTL power supplies may double watts/ft. See following pages for compatible power supplies.		<b>1.5HE</b> 1.5W/ft HE <b>2.5HE</b> 2.5W/ft HE		<b>20/27</b> 2000K/2700K <b>20/30</b> 2000K/3000K <b>27/40</b> 2700K/4000K <b>27/55</b> 2700K/5500K		<b>DRY</b> IP20 <b>WET</b> IP67  Can be suitable for exterior use, contact factory for more information WET rated strips are only compatible without a lens				
			<b>1.5HE</b> 1.5W/ft HE <b>2.5HE</b> 2.5W/ft HE		<b>24/30</b> 2400K/3000K <b>27/40</b> 2700K/4000K		<b>DMP</b> IP54				
7	WIRE INPUT/OUTPUT	8	CONNECTOR/WIRE IN	9	CONNECTOR/WIRE OUT	10	WIRE COLOR				
	<b>SINGLE (Input only)</b> <b>S1</b> End Feed <b>S2</b> Bottom Feed  <b>PASS THROUGH (Input/output)</b> <b>P1</b> End Feed <b>P2</b> Bottom Feed		<b>BW</b> Bare Wire (Standard 24") <b>BRL</b> Barrel <b>CON6</b> Connector 6" <b>CON24</b> Connector 24"  <b>BW</b> Bare Wire (Standard 24") <b>BRL</b> Barrel <b>CON6</b> Connector 6" <b>CON24</b> Connector 24"		<b>CLS</b> Closed End (No feed)  <b>BW</b> Bare Wire (Standard 24") <b>BRL</b> Barrel <b>CON6</b> Connector 6" <b>CON24</b> Connector 24"		<b>WH</b> White <b>BK</b> Black <b>N/A</b> For Barrel  wet barrel only available in black				
	For continuous mounting, consider bottom feed.		BRL only available with TH1WD BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)		BRL only available with TH1WD BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)						
11	WIRE TYPE	12	MOUNTING	13	FINISH	14	LENGTH (IN)	15	EXACT/OPTIMAL		
	<b>CL2</b> Class 2 <b>N/A</b> For Barrel		<b>SST</b> Stainless Steel <b>M4</b> Low Profile Magnet <b>MG</b> Magnet		<b>ST</b> Satin <b>BK</b> Black <b>CU</b> Custom  Custom finishes require a longer lead time, consult factory		Minimum length is 12", maximum length is 98" not including end caps. Contact us for lengths under 12".		<b>O</b> Optimal Illumination <b>E</b> Exact Specified Length  Exact fixtures match the exact length you specify, but they may have dim spots at the ends. Optimal fixtures are slightly shorter than the length specified, but provide full illumination from end to end. See Exact/Optimal Fixture Length charts.		



# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

## 24VDC Linear Fixtures - Surface & Recessed

### 1 PRODUCT - DIMENSIONS



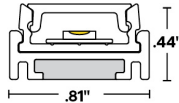
Profile with flat lens



Profile with stainless steel mounting clip



Profile with magnet mounting clip



Profile with low profile magnet

### 2 DELIVERED LUMENS

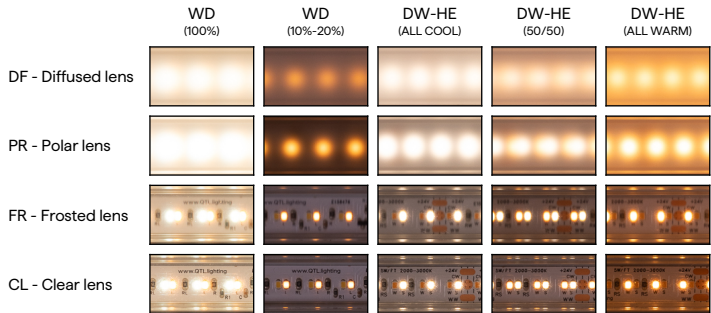
[Calculated L70 = 70000 hrs]  
Tested with TH1WD-6.0-30-DRY-STD

	3000K	
	LM/FT	CRI
CL	441	97
FR	426	97
PR	399	97
DF	366	97

[Calculated L70 = 70000 hrs]  
Tested with TH1DW-\*\*-30-DRY-STD

	1.5HE W/FT		2.5HE W/FT	
	3000K		3000K	
	LM/FT	CRI	LM/FT	CRI
CL	165	98	263	98
FR	163	98	256	98
PR	156	98	243	98
DF	141	98	222	98

### 6 DIODE VISIBILITY



### TEMPERATURE RATINGS

		WD 6.0 W/FT		DW 1.5 HE W/FT		DW 3.0 HE W/FT		DW 2.5 HE W/FT		DW 5.0 HE W/FT	
		Min	Max	QTL power supply other than DALI, DMX		DALI, DMX, or non-QTL power supply		QTL power supply other than DALI, DMX		DALI, DMX, or non-QTL power supply	
				Min	Max	Min	Max	Min	Max	Min	Max
DRY	Ambient Operating Temp - Surface	-4°F	110°F	-4°F	145°F	-4°F	130°F	-4°F	130°F	-4°F	115°F
DMP	Ambient Operating Temp - Surface	**	**	-4°F	140°F	-4°F	125°F	-4°F	125°F	-4°F	110°F
WET	Ambient Operating Temp - Surface	-4°F	105°F	-4°F	140°F	-4°F	125°F	-4°F	125°F	-4°F	110°F

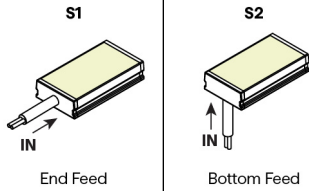


# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

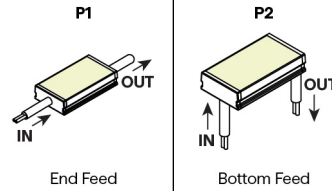
24VDC Linear Fixtures - Surface & Recessed

## 7 WIRE INPUT/OUTPUT

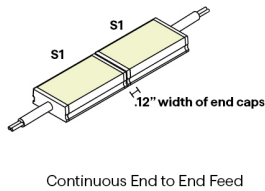
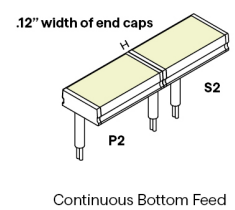
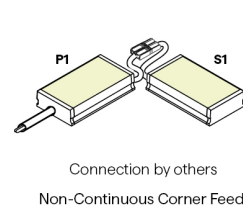
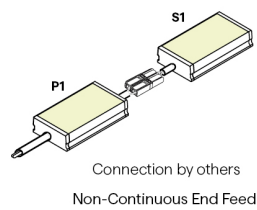
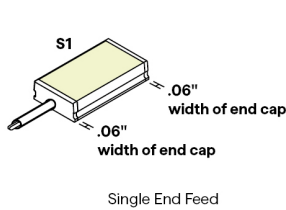
SINGLE (Input only)



PASS THROUGH (Input/Output)

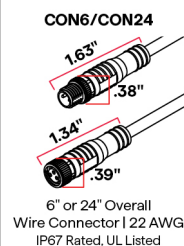
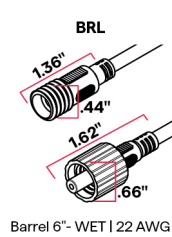
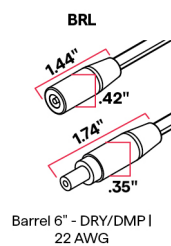
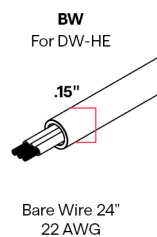
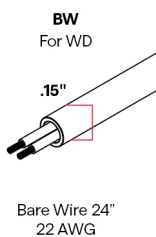


## CONFIGURATION OPTIONS

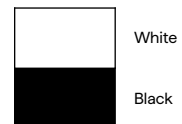


## 8 / 9 CONNECTOR/WIRE - IN/OUT

Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



## 10 WIRE COLOR





# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

## 12 MOUNTING

### SST



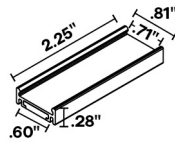
Stainless Steel Clip

2 clips provided for 4' or less; 4 clips provided for greater than 4'

To order separately use SST-01

Each clip comes with a #4 x 5/8" Flat Head SS

### M4

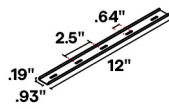


Low Profile Magnet

One M4 provided per foot.

To order separately use MG-04

### MMA-04



Magnet Mount Accessory for M4

Sold separately, to order use MMA-04

Each bracket comes with 2 #6 x 5/8" Flat Head SS

Required when mounting to a non-magnetic surface

### MG

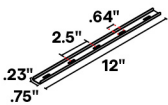


Magnet Clip

One MG provided per foot

To order separately use MG-01

### MMA-01



Magnet Mount Accessory of MG-01

Sold separately, to order use MMA-01

Each bracket comes with 2 #6 x 5/8" Flat Head SS

Required when mounting to a non-magnetic surface

## 13 FINISH



Satin

Black

Custom finishes require a longer lead time, consult factory

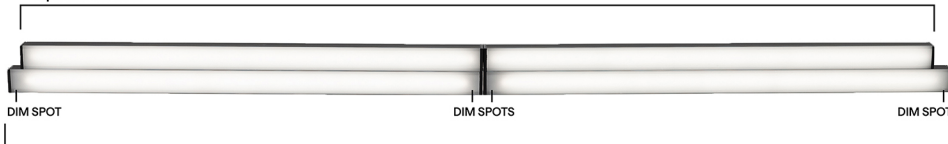
## 14 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. Optimal fixtures' length is rounded down based on LED cut points to allow the fixture to be illuminated end to end. For runs with multiple fixtures that need to fill a specific length, it's recommended to order all optimal fixtures with an exact fixture at the end of the run.

### Optimal Fixtures



### Exact Fixtures



# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

## WD DRY LENGTHS BY INCH

### EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture 
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

### OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	 S1 End Feed	 S2 Bottom Feed	 P1 End Feed	 P2 Bottom Feed
12"		10.41"		10.66"
13"		12.41"		12.66"
14"		12.41"		12.66"
15"		14.41"		14.66"
16"		14.41"		14.66"
17"		16.41"		16.66"
18"		16.41"		16.66"
19"		18.41"		18.66"
20"		18.41"		18.66"
21"		20.41"		20.66"
22"		20.41"		20.66"
23"		22.41"		22.66"
24"		22.41"		22.66"
36"		34.41"		34.66"
48"		46.41"		46.66"
60"		58.41"		58.66"
72"		70.41"		70.66"
84"		82.41"		82.66"
96"		94.41"		94.66"

## WD WET LENGTHS BY INCH

### EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture 
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

### OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	 S1 End Feed	 S2 Bottom Feed	 P1 End Feed	 P2 Bottom Feed
12"		10.61"		10.76"
13"		12.61"		12.76"
14"		12.61"		12.76"
15"		14.61"		14.76"
16"		14.61"		14.76"
17"		16.61"		16.76"
18"		16.61"		16.76"
19"		18.61"		18.76"
20"		18.61"		18.76"
21"		20.61"		20.76"
22"		20.61"		20.76"
23"		22.61"		22.76"
24"		22.61"		22.76"
36"		34.61"		34.76"
48"		46.61"		46.76"
60"		58.61"		58.76"
72"		70.61"		70.76"
84"		82.61"		82.76"
96"		94.61"		94.76"



# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

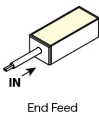
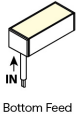
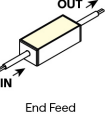
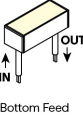
24VDC Linear Fixtures - Surface & Recessed

## DW-HE DRY DMP LENGTHS BY INCH

### EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture 
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

### OPTIMAL LENGTH

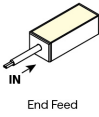
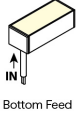
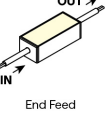
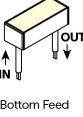
Requested Nominal Length	S1 & S2		P1 & P2	
	 End Feed	 Bottom Feed	 End Feed	 Bottom Feed
12"	10.51"		10.86"	
13"	12.51"		12.86"	
14"	12.51"		12.86"	
15"	14.51"		14.86"	
16"	14.51"		14.86"	
17"	16.51"		16.86"	
18"	16.51"		16.86"	
19"	18.51"		18.86"	
20"	18.51"		18.86"	
21"	20.51"		20.86"	
22"	20.51"		20.86"	
23"	22.51"		22.86"	
24"	22.51"		22.86"	
36"	34.51"		34.86"	
48"	46.51"		46.86"	
60"	58.51"		58.86"	
72"	70.51"		70.86"	
84"	82.51"		82.86"	
96"	94.51"		94.86"	

## DW-HE WET LENGTHS BY INCH

### EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture 
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

### OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	 End Feed	 Bottom Feed	 End Feed	 Bottom Feed
12"	10.66"		11.06"	
13"	12.66"		11.06"	
14"	12.66"		13.06"	
15"	14.66"		13.06"	
16"	14.66"		15.06"	
17"	16.66"		15.06"	
18"	16.66"		17.06"	
19"	18.66"		17.06"	
20"	18.66"		19.06"	
21"	20.66"		19.06"	
22"	20.66"		21.06"	
23"	22.66"		21.06"	
24"	22.66"		23.06"	
36"	34.66"		35.06"	
48"	46.66"		47.06"	
60"	58.66"		59.06"	
72"	70.66"		71.06"	
84"	82.66"		83.06"	
96"	94.66"		95.06"	



# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

## COMPATIBLE POWER SUPPLIES

See power supplies cut sheets for more information. Data subject to change, all data has +/- 5% tolerance.

DIM TO LEVEL	INDOOR		OUTDOOR	
	DW-HE Warm Dim Applications	WD	DW-HE Warm Dim Applications	WD
0.1%	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT8 QT-CAB-eLED+DALI-DT8-AWN QT-CAB-eLED+WD QT-CAB-eLED+WD-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QTM-eLED+WD QTM-eLED+WD-AWN QZ-DW	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-BOWTIE+DIMMER QZ-DMX QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DW QOM-eLED+DALI-DT6 QOM-eLED+DALI-DT8 QOM-eLED+PS-DALI-DT6 QOM-eLED+PS-DALI-DT8 QOM-eLED+WD QZ-DW	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6 QOM-eLED+PS-DALI-DT8 QZ-DMX QZ-PH/0-10V
1%	QZ-DALI-DT8	QTM-eLED(E) QZ-DALI-DT6	Q-SET+QZ-DALI-DT8 QZ-DALI-DT8	Q-SET+QZ-DALI-DT6 QZ-DALI-DT6
10%	Non-Dim Power Supply with WD App Dongle	Non-Dim Power Supply with SW App Dongle		

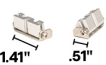

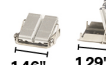


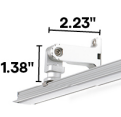
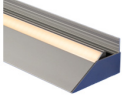


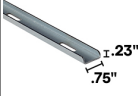

DIMMING PROTOCOL	INDOOR		OUTDOOR	
	DW-HE Warm Dim Applications	WD	DW-HE Warm Dim Applications	WD
Phase	QZ-DW	QT-CAB-QZ-PH/0-10V QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DW QZ-DW	Q-SET-QZ-PH/0-10V QZ-PH/0-10V
0-10V	QT-CAB-eLED+WD QT-CAB-eLED+WD-AWN QTM-eLED+WD QTM-eLED+WD-AWN QZ-DW	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QTM-eLED+0-10V QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DW QOM-eLED+WD QZ-DW	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PH/0-10V
Lutron Athena	QT-CAB-eLED+DALI-DT8-AWN QT-CAB-eLED+WD-AWN QTM-eLED+DALI-DT8-AWN QTM-eLED+WD-AWN	QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6-AWN		
ECO System		QTM-eLED(E)		
DMX If using DW LED, wattage must be doubled		QZ-DMX		QZ-DMX
DALI-2: DT6 If using DW LED, wattage must be doubled except for AWN	QT-CAB-eLED+DALI-DT6 QTM-eLED+DALI-DT6	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6	QOM-eLED+DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QZ-DALI-DT6
DALI-2: DT8 If using DW LED, wattage must be doubled except for AWN	QT-CAB-eLED+DALI-DT8 QT-CAB-eLED+DALI-DT8-AWN QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QZ-DALI-DT8		Q-SET+QZ-DALI-DT8 QOM-eLED+DALI-DT8 QZ-DALI-DT8	
SCENE App Dimmed	Non-Dim Power Supply with WD App Dongle	Non-Dim Power Supply with SW App Dongle		



# ESSENTIALS THIN-FLAT (01) WARM DIM APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

## COMPATIBLE MOUNTING ACCESSORIES

<b>HINGE - HMB-S</b>  1.41" .51" Adjustable mounting bracket - Small	<b>HINGE - HMB-M</b>  1.41" .71" Adjustable mounting bracket - Medium	<b>HINGE - HMB-L</b>  1.46" 1.29" Adjustable mounting bracket - Large	<b>HINGE - HMB-XL</b>  1.46" 4" Adjustable mounting bracket - XLarge	<b>Q-PIVOT</b>  .75" 1.03" Small mounting accessory	<b>Q-ANGLE</b>  2.23" 1.38" Adjustable mounting accessory	<b>QUOVA-STANDARD</b>  QUOVA Knife Edge	<b>NJ-MEDIUM</b>  J Mounting Bracket	<b>SD-L-MEDIUM</b>  L Mounting Bracket	<b>MMA-01</b>  .23" .75" Magnet Mount Accessory of MG-01
<b>MMA-04</b>  .19" .93" Magnet Mount Accessory of MG-04									