



A Comprehensive Cable Securing Solution for Solar Energy Solutions

With the development of the solar energy industry, from solar panels, modules and system assembly projects to large-scale photovoltaic power stations, Huawei provides comprehensive solutions in the solar energy industry, including cable ties, cable tie mounts, and cable clamps.

This solution not only considers quality and cost, saves more installation time, but performs well in harsh environments and prolongs product life.



Polyamide 12 Cable Tie (Solar / Photovoltaic Cable Tie) with Excellent Salt Damage Resistance & Chemical Resistance

Branded PA6/6 UV Resistance or our PA12 cable ties?

In the Solar Industry, there are only few brands as the market player. The standard for PA12 cable ties is over 3600* hours of UV exposure continually in a UV chamber. Indeed, there are few manufacturers can produce PA12 cable ties to meet the strict standard for 3600* hours of UV exposure, but we can.

Is there only one choice neither quality nor price for you? We can help you save more and safe more in PA12 cable ties.

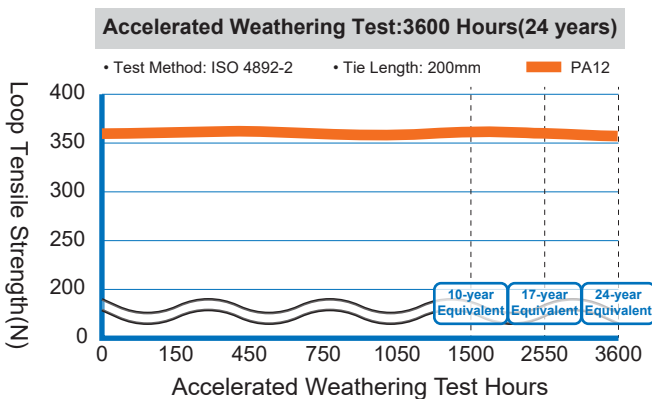
Briefly, choosing PA12 has the following advantages:

- The standard for PA12 cable ties is over 3600* hours of UV exposure continually in a UV chamber. The UV strength is equivalent to about 24 years of weather resistance.
- Highly resistant to chemicals such as chlorides, suitable for solar galvanized steel installation.
- Excellent performance in challenging environments such as offshore, oil rigs, desert area, melting snow and freezing cold areas.
- Low hygroscopicity-saturation is about 1% at 23°C and 50% relative humidity.
- Excellent salt and chemical resistance.
- Better impact performance.



Material	Operating Temperature		UL94 Flammability Rating	UV Resistance	Salt Damage Resistance	Chemicals Resistance	Impact Resistance
	Max.	Min.					
Polyamide 12 (PA 12)	95°C 203°F	-40°C -40°F	UL94HB	Excellent	Excellent	Excellent	Excellent
Polyamide 6,6 Weather Resistant (PA 66 UV)	85°C 185°F	-40°C -40°F	UL94V-2	Good	Normal	Normal	Normal
Polyamide 6,6 (PA 66)	85°C 185°F	-40°C -40°F	UL94V-2	Normal	Normal	Normal	Normal
Tefzel® (ETFE)	170°C 338°F	-60°C -76°F	UL94V-0	Excellent	Excellent	Excellent	Excellent

*Tefzel® is a registered trademark of E. T. du Pont de Nemours and Company



PA12 Cable Tie showed almost no deterioration of strength even after an accelerated weathering test equivalent to approximately 24 years of weather exposure.

In this test, 150hours equals one year.

* Caution: The specified data are measured values and are not guaranteed. Note that they are reference data obtained under certain conditions and they do not indicate the durability (service life) in actual use.

POLYAMIDE 12 (SOLAR / PHOTOVOLTAIC) CABLE TIES

- Good weather resistance, high UV resistance, suitable for long-term outdoor use
- High resistance to chemical substances (such as chloride)
- Higher temperature tolerance than other products
- Impact resistance, high durability
- Internal serrations allowing for a positive hold onto cable and pipe bundles
- The design of the head guarantees a high tensile strength while allowing a very low insertion force
- Operating Temperature: -40~95 °C (-40~203°F)
- Material: Polyamide 12, UL94HB
- Color: Black



Part No.	Length (L) mm (inch)	Width (W) mm (inch)	Max.Bundle ø mm (inch)	Min. Loop Tensile Strength		
				N	kgf	lbf
GT-100M-PA12	100 (3.94)	2.5 (0.10)	22 (0.87)	80	8.2	18
GT-150I-PA12	150 (5.91)	3.6 (0.14)	35 (1.38)	178	18.2	40
GT-200ST-PA12	200 (7.87)	4.8 (0.19)	50 (1.97)	222	22.6	50
GT-250ST-PA12	250 (9.84)	4.8 (0.19)	60 (2.36)	222	22.6	50
GT-300ST-PA12	300 (11.81)	4.8 (0.19)	76 (2.99)	222	22.6	50
GT-370ST-PA12	370 (14.57)	4.8 (0.19)	102 (4.02)	222	22.6	50

Recommended Tensioning Tools



GIT-703

- Extremely light and ergonomic design to reduce user stress for continuous use.
- The adjustable tension knob makes cutting more precision.
- Quickly and safely cuts nylon cable ties and avoids the risk of injury.
- For cable tie of width 2.5 to 4.8mm (0.10 to 0.19 inch) and thickness 1.0 to 1.6 mm (0.04 to 0.06 inch)



GIT-704G

- Utilizes manual operation to tension and cut off cable tie.
- Tensioning tools provide consistent use over many cycles with tension adjustment for changing and confirming settings
- For cable tie of width 3.6~10.6 mm (0.14~0.42 inch) and thickness 1.2~2.3 mm (0.05~0.09 inch)

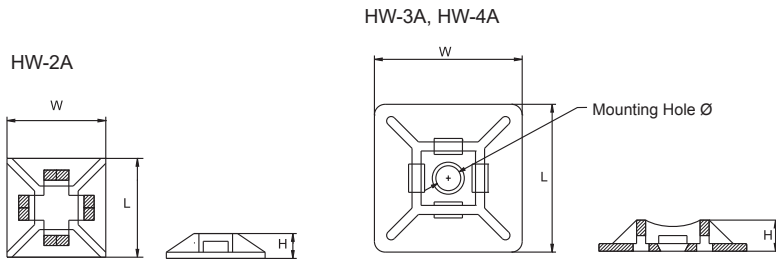
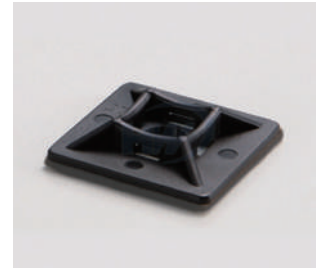


GIT-709

- Automatic cut-off mechanism
- An tensioning adjustment knob makes cutting more precise.
- Hardened steel body design to assure dependable service.
- Tension handles with cushion grips and tops are easier to grasp.
- For cable tie of width 3.6~10.6 mm (0.14~0.42 inch) and thickness 1.2~2.3 mm (0.05~0.09 inch)

SELF ADHESIVE CABLE TIE MOUNTS

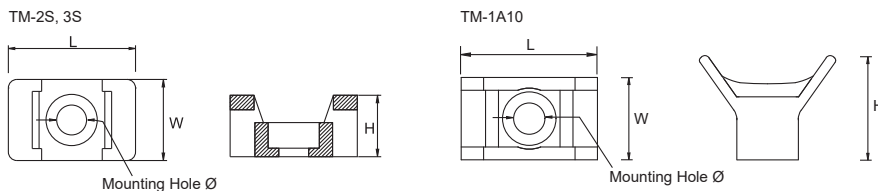
- Available in either "screw mount" or "self adhesive mounting"
- Simple to install with a screw or bolt, the tie mounts give excellent security, particularly in areas of high vibration
- Designed to offer the maximum surface area, and in conjunction with the specially developed adhesive ensures that a very high pull-off force is achieved
- The tie mounts offer a '4-way' entry for the cable tie enabling quicker and more flexible installation
- Designed specifically for holding heavier cable bundles
- Material: Polyamide 12, UL94HB. VHB adhesive.
- Color: Black



Part No.	Length (L) mm (inch)	Width (W) mm (inch)	Height (H) mm (inch)	Mounting Hole ϕ mm (inch)	Max. Tie Width mm (inch)
HW-2A-PA12	12.7 (0.50)	12.7 (0.50)	3.2 (0.13)	--	3.2 (0.13)
HW-3A-PA12	19.0 (0.75)	19.0 (0.75)	4.4 (0.17)	3.5 (0.14)	4.0 (0.16)
HW-4A-PA12	27.8 (1.09)	27.8 (1.09)	5.7 (0.22)	5.7 (0.22)	5.3 (0.21)

SADDLE TIE MOUNTS

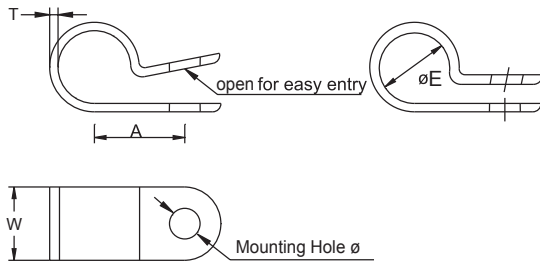
- Fixing base and curved design gives additional support to the cables
- Applied with screw or bolt for excellent security, particularly in areas of high vibration
- It is recommended to use flat-head screw.
- Design for holding heavier cable bundles
- Material: Polyamide 12, UL94HB
- Color: Black



Part No.	Length (L) mm (inch)	Width (W) mm (inch)	Height (H) mm (inch)	Mounting Hole ϕ mm (inch)	Max. Tie Width mm (inch)
TM-2S6-PA12	14.9 (0.59)	9.5 (0.37)	7.2 (0.28)	3.7 (0.15)	4.8 (0.19)
TM-2S8-PA12	14.9 (0.59)	9.5 (0.37)	7.2 (0.28)	4.5 (0.18)	4.8 (0.19)
TM-3S8-PA12	21.9 (0.86)	15.9 (0.63)	9.7 (0.38)	4.5 (0.18)	9.0 (0.35)
TM-3S10-PA12	21.9 (0.86)	15.9 (0.63)	9.7 (0.38)	5.0 (0.20)	9.0 (0.35)
TM-3S25-PA12	21.9 (0.86)	15.9 (0.63)	9.7 (0.38)	6.4 (0.25)	9.0 (0.35)
TM-1A10-PA12	22.7 (0.89)	13.6 (0.54)	17.2 (0.68)	5.0 (0.20)	9.0 (0.35)

CABLE CLAMPS

- Light weight design with strong fixing particularly suitable for use in environments with high UV, solar industry, aircraft and aerospace
- Good UV and temperature resistant and high strength
- Material: Polyamide 12, UL94HB
- Operating temperature: -40 ~ 95°C (-40 ~ 203°F)
- Color: Black



Part No.	Mounting Hole Centers (A) mm (inch)	Width (W) mm (inch)	Thickness (T) mm (inch)	Max.Bundle ø (E) mm (inch)	Mounting Hole ø mm (inch)
GCL-1/8-PA12	9.1 (0.36)	12.7 (0.50)	1.5 (0.06)	2.9 (0.11)	5.4 (0.21)
GCL-1/8S-PA12	8.2 (0.32)	9.1 (0.36)	1.3 (0.05)	3.3 (0.13)	5.5 (0.21)
GCL-3/16S-PA12	9.6 (0.38)	9.1 (0.36)	1.3 (0.05)	4.8 (0.19)	5.5 (0.21)
GCL-1/4-PA12	11.4 (0.45)	12.7 (0.50)	1.5 (0.06)	5.9 (0.23)	5.3 (0.21)
GCL-1/4S-PA12	10.3 (0.41)	9.1 (0.36)	1.3 (0.05)	6.6 (0.26)	5.5 (0.21)
GCL-5/16L-PA12	10.6 (0.42)	12.7 (0.50)	1.3 (0.05)	7.6 (0.30)	4.4 (0.17)
GCL-5/16S-PA12	10.6 (0.42)	9.1 (0.36)	1.3 (0.05)	7.8 (0.31)	5.5 (0.21)
GCL-3/8-PA12	13.4 (0.53)	12.1 (0.48)	1.5 (0.06)	9.1 (0.36)	5.3 (0.21)
GCL-3/8S-PA12	11.9 (0.47)	9.2 (0.36)	1.3 (0.05)	9.7 (0.38)	5.5 (0.21)
GCL-1/2-PA12	15.0 (0.59)	12.7 (0.50)	1.5 (0.06)	12.2 (0.48)	5.3 (0.21)
GCL-1/2S-PA12	23.8 (0.94)	9.4 (0.37)	1.3 (0.05)	12.7 (0.5)	5.4 (0.21)
GCL-9/16-PA12	15.8 (0.62)	12.7 (0.50)	1.5 (0.06)	13.8 (0.54)	5.3 (0.21)
GCL-5/8-PA12	27.2 (1.07)	12.4 (0.49)	1.3 (0.05)	15.5 (0.61)	5.3 (0.21)
GCL-3/4-PA12	19.8 (0.78)	12.7 (0.50)	1.5 (0.06)	18.6 (0.73)	5.3 (0.21)
GCL-7/8-PA12	21.4 (0.84)	12.7 (0.50)	1.5 (0.06)	21.8 (0.86)	5.3 (0.21)
GCL-1-1/8-PA12	24.6 (0.97)	12.7 (0.50)	1.5 (0.06)	27.9 (1.10)	5.3 (0.21)



STAINLESS STEEL TIES WITH HIGH RESISTANCE TO VARIOUS CORROSIVE AGENTS



Features of Ball-Lock Type Stainless Steel Ties

- Unique self-locking mechanism allows quick and reliable application. Low insertion force required.
- Both coated and uncoated products are available; Coated products provide excellent insulation and protection for cables and pipes. Uncoated tie is ideal for being applied for high temperature applications.
- Smooth edge and surface prevents cutting injury.
- Angled and round edge tail enables easier insertion

Advantage of Coated Stainless Steel Ties:

- Better protection of corrosion between dissimilar metals.
- Superior insulation between tie and strapped material.
- Better performance in chemical environments.
- Safe operation by decreasing cutting injuries.

Stainless Steel Material Descriptions

Material	Operation Temp.		Flame Rating	UV Resistance	Salt Damage Resistance	Chemicals Resistance	Antistatic
	Max.	Min.					
Stainless Steel Type: # 304	500°C 932°F	-80°C -112°F	Non flammable	◎	○	◎	◎
Stainless Steel Type: # 316	500°C 932°F	-80°C -112°F	Non flammable	◎	◎	◎	◎

◎ Excellent ○ Good △ Medium

Coating Material Descriptions

Material	Operation Temperature		Abrasion Resistance	Impact Resistance	Adhesion	Alkali Resistance	Acid Resistance	Salt Spray Resistance	Loop Tensile
	Max.	Min.							
Epoxy (ED)	150°C 302°F	-80°C -112°F	○	○	○	○	○	○	○
Polyvinyl Chloride (PVC)	85°C 185°F	-40°C -40°F	◎	◎	○	○	○	◎	△

◎ Excellent ○ Good △ Medium

STAINLESS STEEL CABLE TIES - BALL-LOCK UNCOATED TIES

Ball lock type stainless steel cable ties of unique self-locking mechanism allows quick and reliable application with low insertion force required. Both of coated and uncoated products are available; Coated products provide excellent insulation and protection for cables and pipes. Uncoated tie is ideal for being applied for extreme environment temperature applications.

Product Feature:

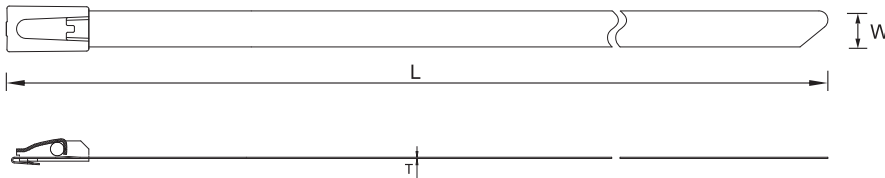
Uncoated version, for high temperature applications



Applications:

ideal for petrochemical, food industry, industries, power stations, mining, ship-building, offshore and any other aggressive environments.

Technical Information:

- Material: Stainless Steel Grade 304 or 316
304 grade stainless steel, for standard applications
316 grade stainless steel, for extra corrosive environments
- Working Temp.: -60°C to 300°C
- Description: Metallic band and buckle
- Flammability: Fireproof
- Other Properties: UV-resistant.



Part No.	Length (L) mm (inch)	Width (W) mm (inch)	Thickness (T) mm (inch)	Max.Bundle ø mm (inch)	Min. Loop Tensile Strength			Recommended Tensioning Tools	
					N	kgf	lbf		
MLG-130ST	130 (5.08)	4.6 (0.18)	0.26 (0.01)	33 (1.30)	445	45.4	100	 GIT-705	
MLG-152ST	150 (5.91)	4.6 (0.18)	0.26 (0.01)	46 (1.81)	445	45.4	100		
MLG-200ST	200 (7.87)	4.6 (0.18)	0.26 (0.01)	50 (1.97)	445	45.4	100		
MLG-280ST	280 (11.02)	4.6 (0.18)	0.26 (0.01)	70 (2.76)	445	45.4	100		
MLG-300ST	300 (11.81)	4.6 (0.18)	0.26 (0.01)	76 (2.99)	445	45.4	100		
MLG-370ST	370 (14.57)	4.6 (0.18)	0.26 (0.01)	102 (4.02)	445	45.4	100		
MLG-520ST	520 (20.47)	4.6 (0.18)	0.26 (0.01)	156 (6.14)	445	45.4	100		
MLG-680ST	680 (26.77)	4.6 (0.18)	0.26 (0.01)	207 (8.15)	445	45.4	100		
MLG-840ST	840 (33.07)	4.6 (0.18)	0.26 (0.01)	257 (10.12)	445	45.4	100		
MLG-1050ST	1050 (41.34)	4.6 (0.18)	0.26 (0.01)	319 (12.56)	445	45.4	100		
MLG-152HD	150 (5.91)	7.9 (0.31)	0.26 (0.01)	46 (1.81)	1112	45.4	250		 GIT-2065
MLG-200HD	200 (7.76)	7.9 (0.31)	0.26 (0.01)	50 (1.97)	1112	113.4	250		
MLG-300HD	300 (11.81)	7.9 (0.31)	0.26 (0.01)	76 (2.99)	1112	113.4	250		
MLG-370HD	370 (14.49)	7.9 (0.31)	0.26 (0.01)	102 (4.02)	1112	113.4	250		
MLG-450HD	450 (17.72)	7.9 (0.31)	0.26 (0.01)	135 (5.31)	1112	113.4	250		
MLG-500HD	500 (19.69)	7.9 (0.31)	0.26 (0.01)	150 (5.91)	1112	113.4	250		
MLG-680HD	680 (26.77)	7.9 (0.31)	0.26 (0.01)	207 (8.15)	1112	113.4	250		
MLG-720HD	720 (28.35)	7.9 (0.31)	0.26 (0.01)	216 (8.50)	1112	113.4	250		
MLG-840HD	840 (33.07)	7.9 (0.31)	0.26 (0.01)	257 (10.12)	1112	113.4	250		
MLG-1020HD	1020 (40.16)	7.9 (0.31)	0.26 (0.01)	312 (12.28)	1112	113.4	250		
MLG-1050HD	1050 (41.34)	7.9 (0.31)	0.26 (0.01)	319 (12.56)	1112	113.4	250		

STAINLESS STEEL CABLE TIES - BALL-LOCK EPOXY COATED TIES

Ball lock type stainless steel cable ties of unique self-locking mechanism allows quick and reliable application with low insertion force required. Both of coated and uncoated products are available; Coated products provide excellent insulation and protection for cables and pipes. Uncoated tie is ideal for being applied for extreme environment temperature applications.

Product Feature:

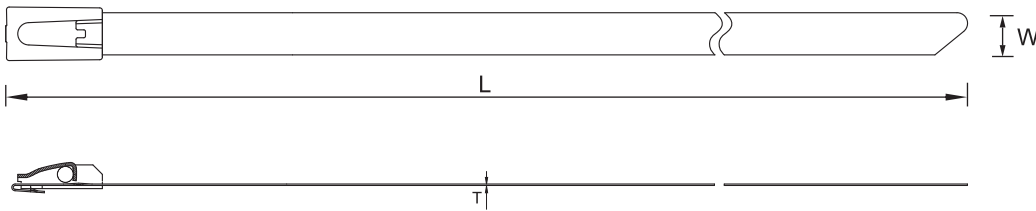
- Coated band with non-toxic, halogen free polyester coating
- Provides additional edge protection
- Prevents the corrosion between dissimilar materials.
- Metallic buckle helps to distinguish from black nylon tie.

Applications:

Ideal for petrochemical, Industries, power stations, mining, ship-building, offshore, and other aggressive environments.

Technical Information:

- Material: Stainless Steel Grade 304 or 316
304 grade stainless steel, for standard applications
316 grade stainless steel, for extra corrosive environments
- Working Temp.: -80°C to 150°C
- Description: Black Band with Metallic Buckle
- Flammability: Fireproof
- Other Properties: UV-resistant, non toxic



Part No.	Length (L) mm (inch)	Width (W) mm (inch)	Thickness (T) mm (inch)	Max.Bundle ø mm (inch)	Min. Loop Tensile Strength		
					N	kgf	lbf
MLG-130STE	130 (5.08)	4.6 (0.18)	0.39 (0.014)	33 (1.30)	600	72.4	135
MLG-200STE	200 (7.87)	4.6 (0.18)	0.39 (0.014)	50 (1.97)	600	72.4	135
MLG-300STE	300 (11.81)	4.6 (0.18)	0.39 (0.014)	76 (2.99)	600	72.4	135
MLG-370STE	370 (14.57)	4.6 (0.18)	0.39 (0.014)	102 (4.02)	600	72.4	135
MLG-520STE	520 (20.47)	4.6 (0.18)	0.39 (0.014)	156 (6.14)	600	72.4	135
MLG-680STE	680 (26.77)	4.6 (0.18)	0.39 (0.014)	207 (8.15)	600	72.4	135
MLG-840STE	840 (33.07)	4.6 (0.18)	0.39 (0.014)	257 (10.10)	600	72.4	135
MLG-1050STE	1050 (41.34)	4.6 (0.18)	0.39 (0.014)	319 (12.56)	600	72.4	135
MLG-200HDE	200 (7.76)	7.9 (0.31)	0.39 (0.014)	50 (1.97)	800	114	180
MLG-300HDE	300 (11.81)	7.9 (0.31)	0.39 (0.014)	76 (3.00)	800	114	180
MLG-370HDE	370 (14.49)	7.9 (0.31)	0.39 (0.014)	102 (4.02)	800	114	180
MLG-450HDE	450 (17.72)	7.9 (0.31)	0.39 (0.014)	115 (4.50)	800	114	180
MLG-500HDE	500 (19.69)	7.9 (0.31)	0.39 (0.014)	128 (5.00)	800	114	180
MLG-680HDE	680 (26.77)	7.9 (0.31)	0.39 (0.014)	207 (8.15)	800	114	180
MLG-720HDE	720 (28.35)	7.9 (0.31)	0.39 (0.014)	216 (8.50)	800	114	180
MLG-840HDE	840 (33.07)	7.9 (0.31)	0.39 (0.014)	257 (10.10)	800	114	180
MLG-1020HDE	1020 (40.16)	7.9 (0.31)	0.39 (0.014)	312 (12.30)	800	114	180
MLG-1050HDE	1050 (41.34)	7.9 (0.31)	0.39 (0.014)	319 (12.56)	800	114	180

STAINLESS STEEL STRAPPING & BUCKLE

- Applied with stainless steel buckles: MLW-BK and MLT-BK
- Tie length or bundle diameter can be adjusted by users
- Fit for hoses of all sizes
- Convenient and durable for mounting traffic signs, commercial signs, holiday decorations, etc.
- Material: Stainless steel type: #304, 316
- Length: 30 M / 100 ft. per roll



Paper Box



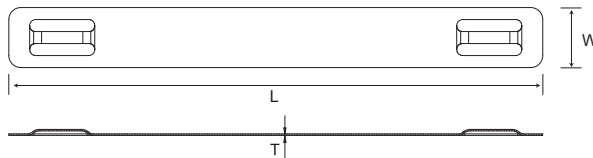
Plastic Tote



Part No.		Length M (ft.)	Width mm (inch)	Thickness mm (inch)	Suitable Buckles		Recommended Tensioning Tools
Paper Box	Plastic Tote				Wing Seal	Tiger Teeth	
MLF-30HD-9506	MLF-30HD-9506P	30 (100)	9.5 (0.37)	0.58 (0.02)	MLW-BK-3	MLT-BK-3	<p>GIT-260</p>
MLF-30HD-1207	MLF-30HD-1207P	30 (100)	12.7 (0.50)	0.70 (0.03)	MLW-BK-4	MLT-BK-4	
MLF-30HD-1607	MLF-30HD-1607P	30 (100)	15.9 (0.63)	0.70 (0.03)	MLW-BK-5	MLT-BK-5	
MLF-30HD-1907	MLF-30HD-1907P	30 (100)	19.0 (0.75)	0.70 (0.03)	MLW-BK-6	MLT-BK-6	
MLF-30HD-9504	MLF-30HD-9504P	30 (100)	9.5 (0.37)	0.38 (0.02)	MLW-BK-3	MLT-BK-3	
MLF-30HD-1204	MLF-30HD-1204P	30 (100)	12.7 (0.50)	0.38 (0.02)	MLW-BK-4	MLT-BK-4	
MLF-30HD-1604	MLF-30HD-1604P	30 (100)	15.9 (0.63)	0.38 (0.02)	MLW-BK-5	MLT-BK-5	
MLF-30HD-1904	MLF-30HD-1904P	30 (100)	19.0 (0.75)	0.38 (0.02)	MLW-BK-6	MLT-BK-6	

STAINLESS STEEL MARKER PLATES

- Applicable for use at ducts, pipes, valves, power cables, chemical petroleum devices, oil refining plants, and other harsh environments
- Quality resistance to abrasion, corrosion and UV that enables the tie adaptable to most of the harsh environment circumstances by providing long-lasting indication performance
- Advantages of speed installation and low cost
- Material: Stainless steel type: #304, 316



Part No.	Length (L) mm (inch)	Width (W) mm (inch)	Thickness (T) mm (inch)	Max. 4.77mm (3/16") Characters Per Line	Max. Lines	Max. Tie Width mm (inch)
GMP-8910R	89 (3.50)	10 (0.39)	0.25 (0.01)	23	1	8.0 (0.31)
GMP-8919R	89 (3.50)	19 (0.75)	0.25 (0.01)	23	3	8.0 (0.31)

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