

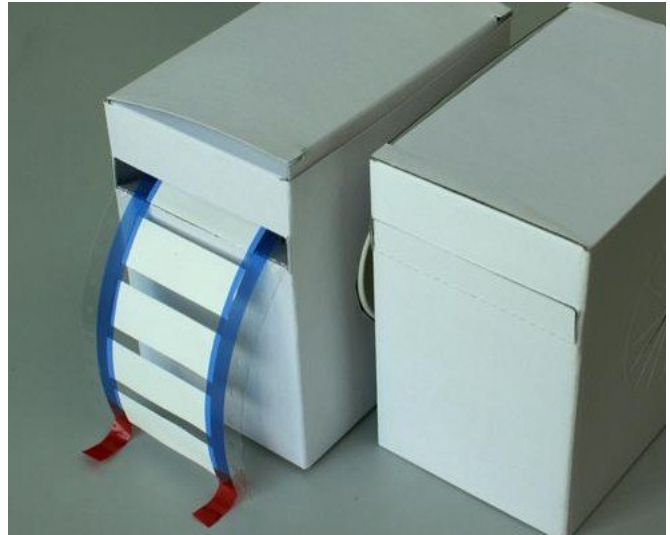


## Heat Shrinkable Wire Markers

GAMMA ELECTRONICS INC. is pleased to introduce GAMMA-MARK, our series of high performance heat shrinkable identification sleeves. GAMMA-MARK markers are made from highly durable, flame retardant, radiated polyolefin. GAMMA-MARK markers are conveniently available in a 2:1 and 3:1 shrink ratio.

The 2:1, MARK-221, is thick, rugged and easy to handle. The 3:1, MARK-321, is light weight, fast shrinking, versatile sleeve, which allows for the reduction in inventory. Both MARK-221 & MARK-321 meet the stringent requirements of AMS-DTL-23053/5 CL1&3 and the mark permanence of SAE-AS-81531 before and after shrinking. Marking on GAMMA-MARK sleeves allows for a permanent mark resistant to abrasion, aggressive cleaning solvents, and military fuels and oils.

GAMMA markers are designed to be printed on by a dot matrix or a thermal transfer printer. Markers are held between two perforated plastic strips and are supplied in the standard 2" length. This allows for more accuracy, a cleaner print, and less room for error.



### **Features Include:**

2:1 & 3:1 version (MARK-221 & MARK-321)

Available in thick wall (MARK-321HW), thin wall (MARK-321) and Halogen Free (MF-321 or MF-221)

Military Specified Material and Print Performance

Permanent Marking

UL Recognized, VW-1 Flame Test (MARK-221 & MARK-321)

cUL Recognised

Fast Recovery & Easy Application

Material Meets Milspec AMS-DTL-23053/5 CL1&3

Printing Meets SAE-AS-81531, MIL-STD-202F Method 215J

Perforated Plastic Sides Make for Easy and Quick Application

RoHS Compliant

Standard Width is 2"

**Characteristics:**

Operating Temperature: -55C to 135C

Minimum Recovery Temperature: 85C

Fully Recovered Temperature: 115C

Maximum Storage Temperature: 50C

**MARK-321 SIZE DIMENSIONS (Thin Wall)**

Thin Wall Material		Pcs Per Spool	FT / Box	Expanded as Supplied, mm			Recovery Dimensions, mm	
GAMMA P/N	Size			ID	Flat Width, W2	Wall Thickness 2X	ID	W.T.
MARK-321-3/32	3/32"	250	9000	2.36	3.7	0.36	0.79	0.56
MARK-321-1/8	1/8"	250	9000	3.18	5	0.36	1.06	0.56
MARK-321-3/16	3/16"	250	9000	4.75	7.5	0.37	1.59	0.57
MARK-321-1/4	1/4"	250	9000	6.35	10	0.38	2.36	0.58
MARK-321-3/8	3/8"	250	9000	9.53	15	0.39	3.18	0.60
MARK-321-1/2	1/2"	250	9000	12.7	19.9	0.39	4.75	0.61
MARK-321-3/4	3/4"	250	9000	19.1	30	0.40	6.35	0.63
MARK-321-1	1"	250	4000	25.4	39.9	0.44	8.47	0.64
MARK-321-11/2	1 1/2"	250	3000	38.1	59.8	0.43	12.7	0.66
MARK-321-2	2"	250	2000	50.8	79.8	0.44	16.9	0.68
MARK-321-3	3"	100	1500	76.2	119.7	0.46	25.4	0.71

**MARK-321HW SIZE DIMENSIONS (Thick Wall)**

Thick Wall Material		Pcs Per Spool	FT / Box	Expanded as Supplied, mm			Recovery Dimensions, mm	
GAMMA P/N	Size			ID	Flat Width, W2	Wall Thickness 2X	ID	W.T.
MARK-321HW-3/32	3/32"	250	9000	2.36	3.7	0.62	0.79	0.68
MARK-321HW-1/8	1/8"	250	9000	3.18	5	0.63	1.06	0.68
MARK-321HW-3/16	3/16"	250	9000	4.75	7.5	0.64	1.59	0.69
MARK-321HW-1/4	1/4"	250	9000	6.35	10	0.65	2.36	0.7
MARK-321HW-3/8	3/8"	250	9000	9.53	15	0.67	3.18	0.72
MARK-321HW-1/2	1/2"	250	9000	12.7	19.9	0.68	4.75	0.73
MARK-321HW-3/4	3/4"	250	9000	19.1	30	0.69	6.35	0.75
MARK-321HW-1	1"	250	4000	25.4	39.9	0.71	8.47	0.76
MARK-321HW-11/2	1 1/2"	250	3000	38.1	59.8	0.73	12.7	0.78
MARK-321HW-2	2"	250	2000	50.8	79.8	0.75	16.9	0.8
MARK-321HW-3	3"	100	1500	76.2	119.7	0.78	25.4	0.83

Ordering:

Non-stock products typically take 8-10 weeks.

Part Number

MARK-321-1/4-4 equals a thin wall 1/4" yellow 2" in length heat shrinkable marker with a 3:1 shrink ratio. G-MARK markers are also available in thick wall and halogen free versions.

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