3314 Cermet Trimming Potentiometers

Product features

• 4 mm square SMD single-turn cermet trimmer; sealed industrial construction.

• Surface-mount processing and vacuum pick-and-place compatible; side-adjust versions available.

Styles: J / G / R / H / S / Z; -1 / -2 / -3 marking/slot options



Electrical characteristics

Parameter	3314
Resistance range	10 Ω-2 MΩ
Resistance tolerance	±20%; tighter tolerance available
Minimum / end resistance	1% or 2 Ω, whichever is greater
Contact resistance variation	3% or 3 Ω
Resolution	Infinite
Insulation resistance	≥100 MΩ at 500 VDC
Dielectric strength	500 VAC, 1 minute at sea level
Electrical travel	210° nominal

Environmental characteristics

Parameter	3314
Rated power / voltage limit	0.25 W at 70°C; 0 W at 125°C; max. 300 V
Operating temperature	-55°C to +125°C
Temperature coefficient	±100 ppm/°C
Humidity	90-98% RH; 10 cycles / 240 h; TRS ±2%; IR 10 MΩ
Vibration	20 G; TRS ±1%; VRS ±1%
Shock	100 G; TRS ±1%; VRS ±1%
Load life	1000 h at 70°C rated power; TRS ±3%
Rotational life	100 cycles; TRS ±3%
Thermal shock	5 cycles; TRS ±2%; VRS ±1%

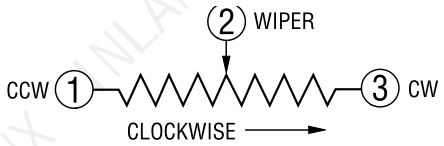
3314 Cermet Trimming Potentiometers

Physical characteristics

Parameter	3314
Mechanical angle	240° nominal
Torque	180 g-cm typical
Stop / end-stop strength	300 g-cm typical
Terminals	J-hook, gull-wing or pinned
Weight	Approx. 0.01 oz
Wiper setting	50% of actual TR, ±10%
Flammability	UL 94V-0
Pushover strength	Z style: ≥2 kg (4.4 lb)
Adjustment tool	H-90

TR: total resistance; CRV: contact resistance variation; VR: voltage ratio. TRS/VRS indicate shifts in total resistance/voltage ratio. —: not specified for that construction.

Terminal circuit



Standard resistance values and codes

3314

Resistance	Code	Resistance	Code	Resistance	Code
10 Ω	100	20 Ω	200	50 Ω	500
100 Ω	101	200 Ω	201	500 Ω	501
1 kΩ	102	2 kΩ	202	5 kΩ	502
10 kΩ	103	20 kΩ	203	25 kΩ	253
50 kΩ	503	100 kΩ	104	200 kΩ	204
250 kΩ	254	500 kΩ	504	1 MΩ	105
2 MΩ	205				

Selected drawing dimensions • mm

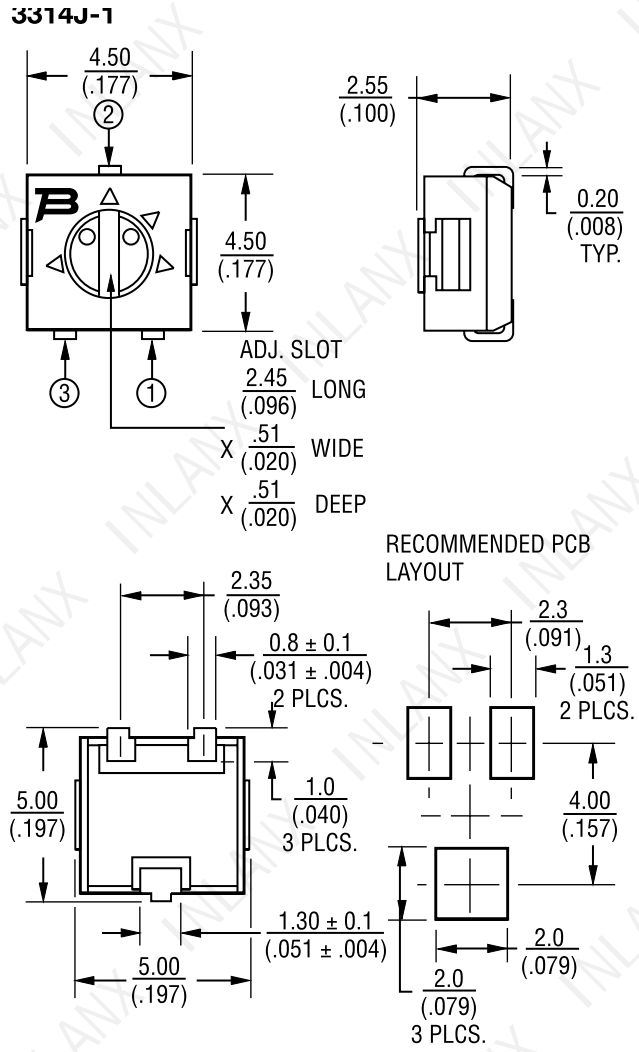
Style	Shown outline values	Lead / pad spacing	Other drawing values
J-1	4.50; 4.50; 2.55	2.35; 2.0	—
G-1	4.50; 4.50; 2.55	2.35; 2.0	—
R-1	6.20; 4.50; 2.55	2.35; 2.0	—
H-1	4.50; 4.50; 2.55	2.55	—
S	5.01; 4.5; 5.61	2.54; 1.27	—
Z	5.01; 4.5; 3.32	2.54; 1.27	5.76

3314 Cermet Trimming Potentiometers

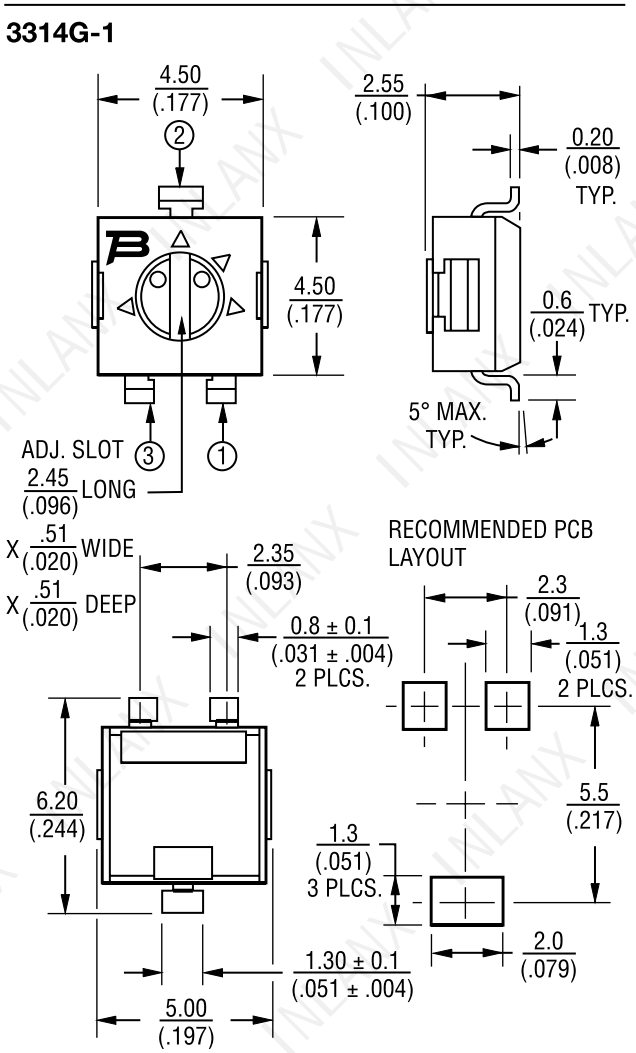
Outline and mounting dimensions

Unless otherwise noted: ±0.25 mm (±0.010 in). S-style common dimensions: ±0.30 mm (±0.012 in).

J-1 dimensions and pads



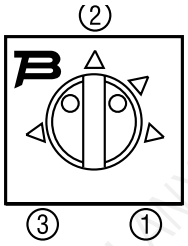
G-1 dimensions and pads



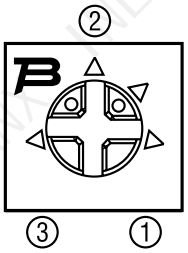
3314 Cermet Trimming Potentiometers

Rotor and terminal conventions

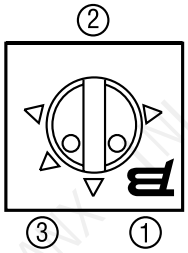
3314J-1, G-1, R-1, H-1
Standard marking
Straight slot



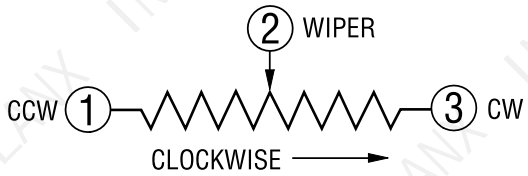
3314J-2, G-2, R-2, H-2
Standard marking
Cross slot



3314J-3, G-3, R-3, H-3 (Reverse Marking, Straight Slot)

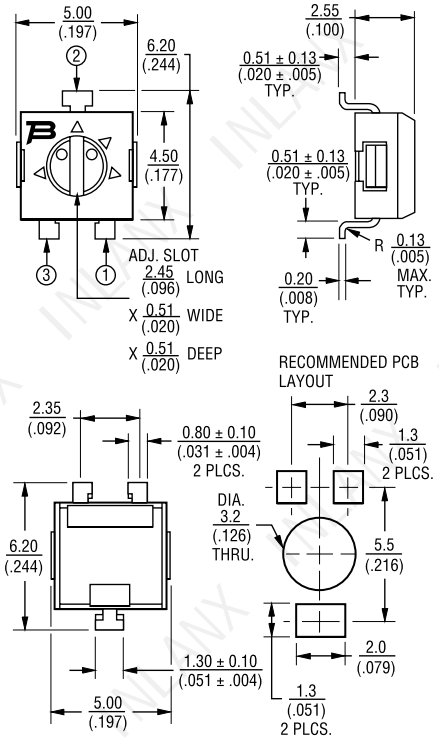


DIMENSIONS: MM/(INCHES)
TOLERANCES: ±.25/(±.010) EXCEPT WHERE NOTED

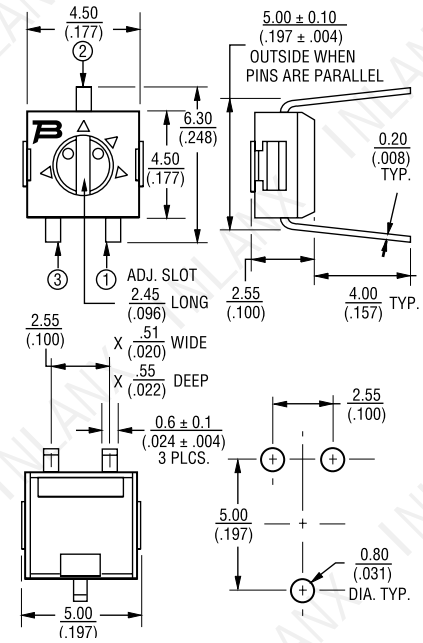


R-1 / H-1 dimensions and pads

3314R-1



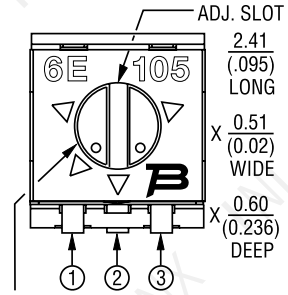
3314H-1



3314 Cermet Trimming Potentiometers

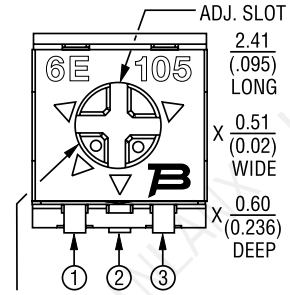
S dimensions and pad layout

3314S-1
Standard marking, straight slot



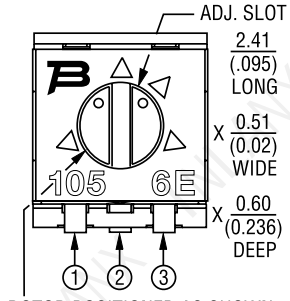
ROTOR POSITIONED AS SHOWN
WITHIN ± 22° OF CENTERLINE
OF TERMINAL 2

3314S-2
Standard marking, cross slot



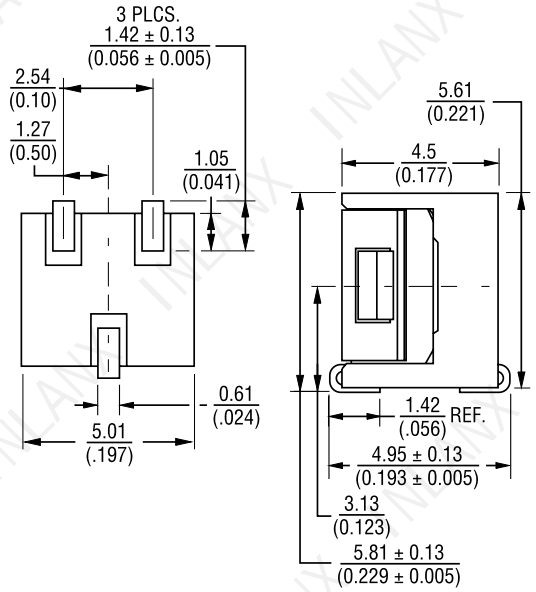
ROTOR POSITIONED AS SHOWN
WITHIN ± 22° OF CENTERLINE
OF TERMINAL 2

3314S-3
(Reverse Marking, Straight Slot)

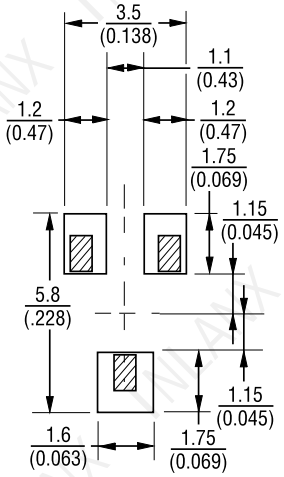


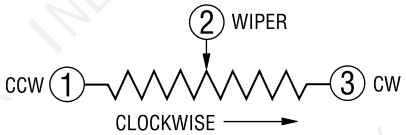
ROTOR POSITIONED AS SHOWN
WITHIN ± 22° OF CENTERLINE
OF TERMINAL 2

3314S
Common Dimensions



RECOMMENDED PCB LAYOUT

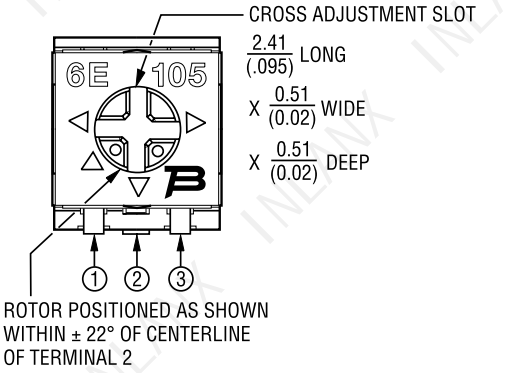




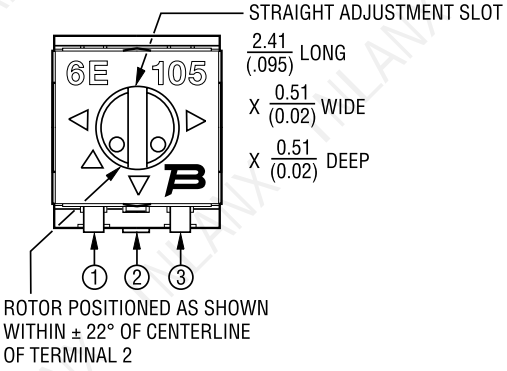
3314 Cermet Trimming Potentiometers

Z dimensions and pad layout

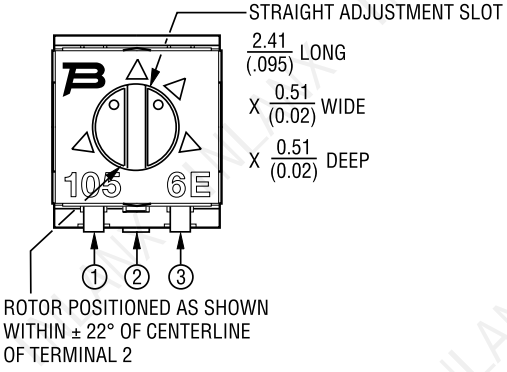
3314Z-1-(RC) E
(Cross Slot)



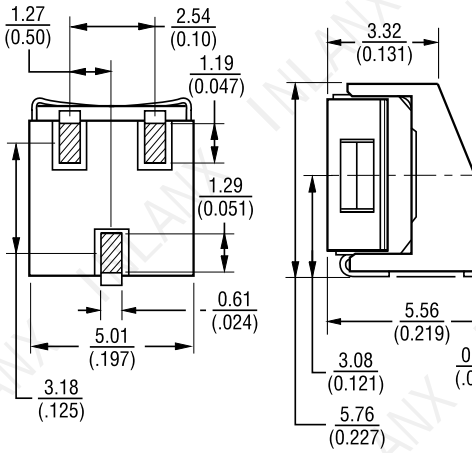
3314Z-GA4-(RC) E
(Straight Slot)



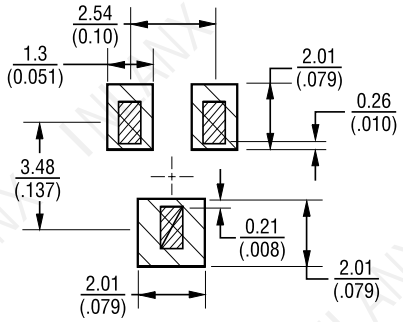
3314Z-3
(Reverse Marking, Straight Slot)

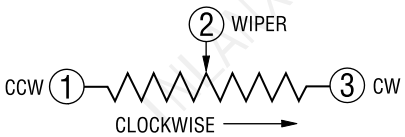


3314Z
Common Dimensions



RECOMMENDED PCB LAYOUT





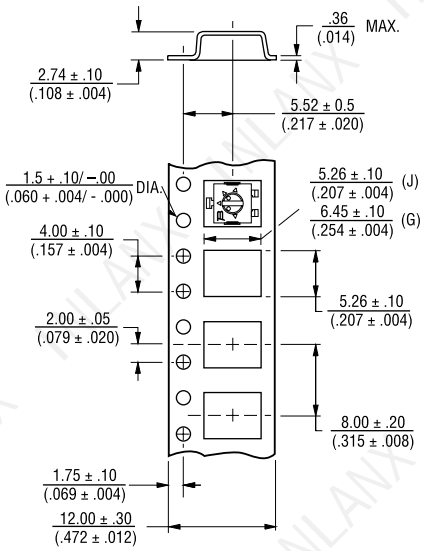
3314 Cermet Trimming Potentiometers

Packaging dimensions

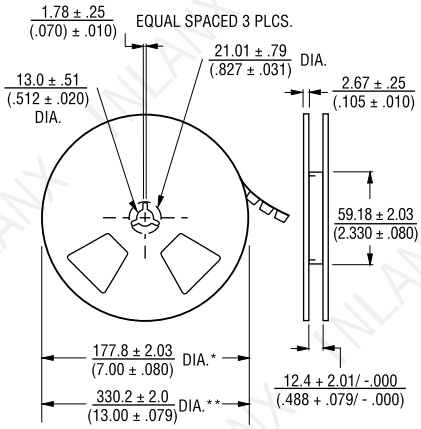
J / G / R tape and reel

(J, G Styles)

TAPE



REEL

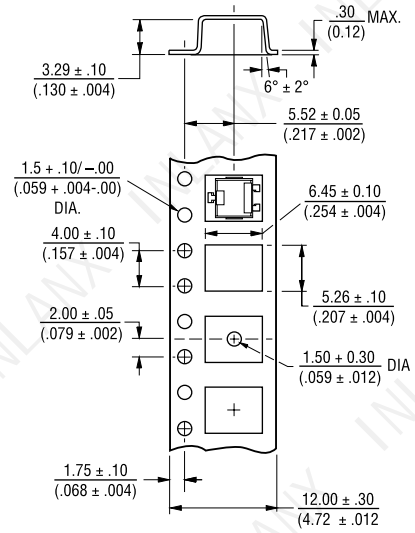


* Embossed Tape Designator "E"
** Embossed Tape Designator "G"
(See How To Order chart for further information.)

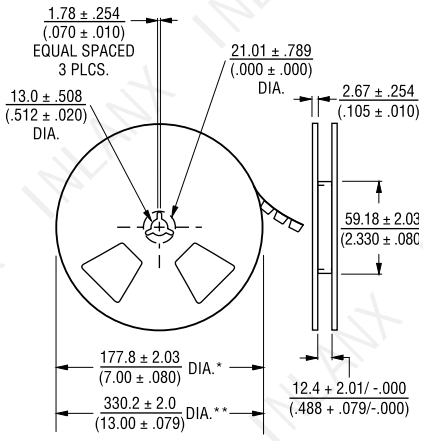
Meets EIA specification 481.

(R Style)

TAPE



REEL

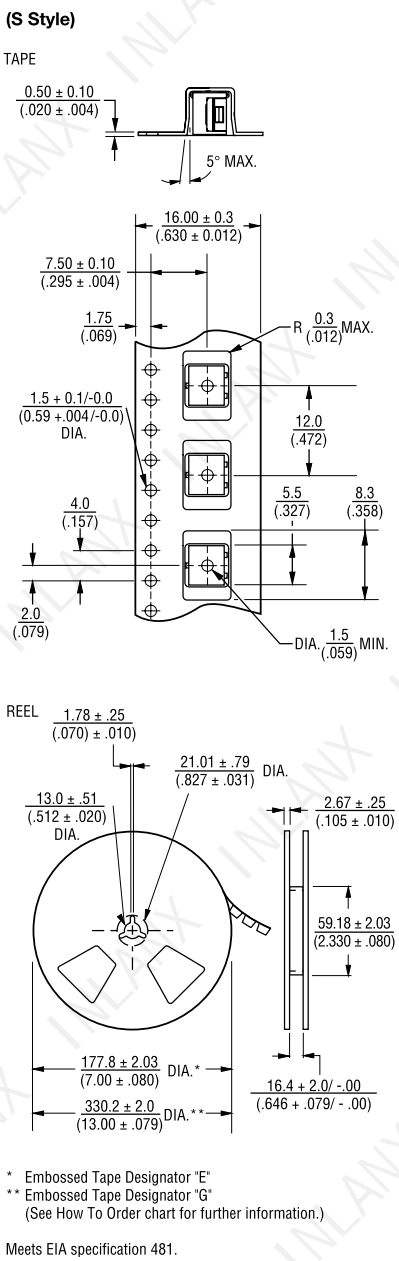


* Embossed Tape Designator "E"
** Embossed Tape Designator "G"
(See How To Order chart for further information.)

Meets EIA specification 481.

3314 Cermet Trimming Potentiometers

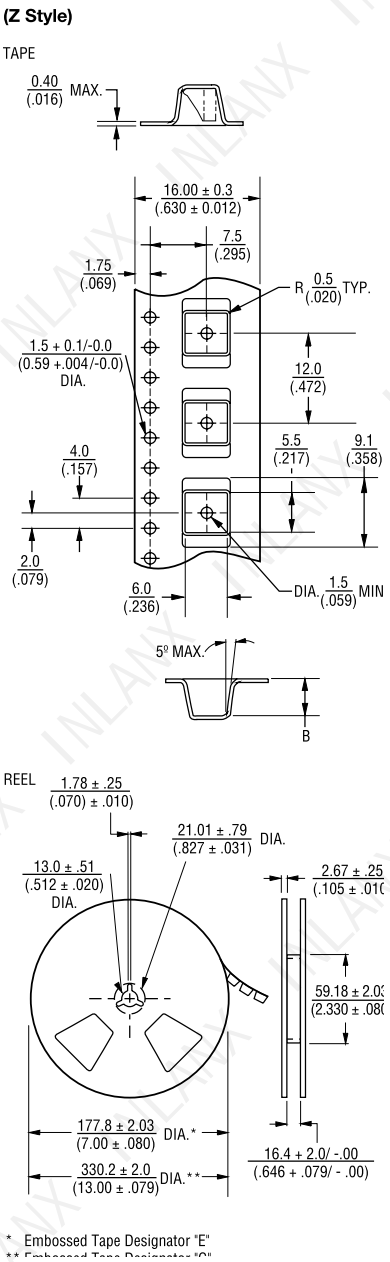
S tape and reel



* Embossed Tape Designator "E"
** Embossed Tape Designator "G"
(See How To Order chart for further information.)

Meets EIA specification 481.

Z tape and reel



* Embossed Tape Designator "E"

Packaging and ordering

J/G/R: 500 pcs per 7-inch reel. S/Z: 200 pcs per 7-inch reel. H: 100 pcs/tube. Reel code 2 uses 200 pcs/7-inch for S/Z.

INLANX - 3314 - Style - Marking/slot code - Resistance code - Packaging. Example: 3314 J - 1 - 502 E. -1: standard marking / straight slot; -2: standard marking / cross slot; -3: reverse marking / straight slot. E: J/G/R 500 pcs/7-inch; 2: S/Z 200 pcs/7-inch.