

# ESTIMATING RANGE WITH A MOSIN-NAGANT PU 91/30 SCOPE



**MOSIN NAGANT 91/30  
7.62x54R SNIPER RIFLE  
WITH 3.5x PU OPTIC SCOPE**

## PU 91/30 MAIN FEATURES

|                |   |
|----------------|---|
| Manufacturer   | One of the following:<br>Progress, Kazan, Yoshkar-Ola, Krasnogorsk (USSR) |
| Year           | 1940-1944   |
| Magnification  | Fixed 3.5x  |
| Weight         | 250 - 300gr   |
| Reticle        | "German Post" with rangefinding features                                  |
| Elevation knob | Graduated in distance units: 100-1300m                                    |
| Windage knob   | 1mil per notch  |

**The Mosin–Nagant (SVM)** is a bolt-action, internal magazine-fed, military rifle, developed by the Imperial Russian Army in 1882–91, and used by the armed forces of the Russian Empire, the Soviet Union and various other nations. In combination with a 3.5x PU optic scope it is one of the most mass-produced military sniper rifles in history.

Despite their obsolescence, PU equipped Mosin-Nagant rifles remain a very popular solution for shooters due to their reliability, accessibility and simplicity in use. However, very few sources mention about PU's rangefinding capabilities. Let's shed some light on this subject...

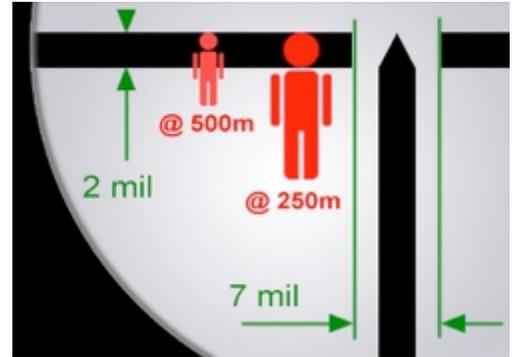


**The PU reticle** was originally developed by the Germans. Hence the name "German Post". It is formed by a cone tipped central post and two horizontal lines coming in from each side.

All of the dimensions have specific meanings. The posts are 2 mils in diameter, which corresponds to 20cm at 100 meters. The gap between the horizontal lines most commonly called the "base" is 7 mil, which is 70cm at 100m.

**Rangefinding techniques** can be based on a height of a man. A typical 6 foot man measures 2 mils at 1000 meters, 4 mils at 500m, 8mils at 250m, etc. Consequently, using the PU reticle you can estimate distance to a standing man as follows:

- if the horizontal post is the height of a man from foot to head he is at 1000m
- if the post is foot to waist or waist to almost tiptop of his head the man is at 500m
- if the post only covers the man's knees he is at 250m(see the picture)



However, this is not the only way to estimate range. There is another method based on a human's appearance in the scope that works even better at closer distances. The gap between the horizontal lines, or the base, is 7mils wide, which gives us 70cm at 100m. That's the width of an average man's shoulders at 100m.

**If the base is wider than a man's shoulders** we can estimate the distance using the calculation method shown on the picture below.



With this in mind you can invent your own table of distances and typical objects to base your rangefinding on.

More information at:

[www.neveryetmelted.com/tags/9130-pu-scope/](http://www.neveryetmelted.com/tags/9130-pu-scope/)

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