

**Specification of Electronic Medium Speed Weigh In Motion (MSWIM) System**

Platform size dimension	Platform size dimension 3000 mm x 700 mm
Capacity of the Platform	20 Ton/Axle
Technology type	Bending plate with minimum civil works ,can be relocated
Structure Plate	Plate – MS Duly certified for Structural Analysis And Design (STAAD)- III complying BIS 2062 / IIT approved
Stationary Accuracy	+/- 0.05% FSR
In Motion Accuracy	+/- 7% FSR up to speed 50 Km/h;
Maximum passing speed	50 Km/ h
Overload capacity of the platform	150% of rated capacity
Protection Class	IP 68, Operational Temp: -10 to 65 Degrees
Vehicle separator	IR Based curtain with minimum 24 sensors –housed in Stainless steel pillars with proper sealing
Size of IR Curtain	440 mm x 1500 mm
Range of IR Sensors	7 meter
Axle counter	Stainless steel / Mild steel Unit capability to perform in harsh temperatures/ environments
Controller Housing	Water/ weather proof with anti-rust coating; IP65 rated
Compliant	Legal Metrology Act 2009 (1 of 2010) & Rules framed thereunder from time to time, duly stamped & sealed by W&M
Approval/ Certification	Type/ Model/ Third party approval for accuracy level by Government approved Test Laboratory/Product Model approval / NPL
Re-calibration/ Stamping & Verification	Every 12 (twelve) months
Downtime allowed for Periodic Maintenance	Maximum 8 (Eight) hour/ Quarter

Bending Plate Medium speed weigh-in-motion (MSWIM) system, which should be capable of determining the axle weights, Axle space , axle counts , height dynamically upto a speed of 0 to 50 kmph. A copy of model approval confirming the same to be submitted. MSWIM system should consist of a Platform Structure permanently installed into pavement of concrete lane approaching weigh point. MSWIM Bending plate to be installed within 24 hours per lane and this includes civil work. The MSWIM should have axle and tyre detection sensors Vehicle separator along with accurate automatic vehicle separation, differentiation & weight load classification as per the Ministry directives SO 728 in line to the Central Motor vehicle act 2016. The WIM system should have signal control, configurable alarm outputs and user friendly operator control unit. The equipment proposed shall mandatorily have Model Approval necessary to operate Weighing equipments in India from Weights & Measures Department, Government of India. The Indicator would be sealed by the W&M department after calibration which shall be the overall responsibility of the equipment supplier to calibrate all the MSWIM equipment at a maximum duration of every 12 months along with certificate renewal from the concerned authority as & when required copies of same duly submitted to Error! Unknown document property name. for records.

**Components of the Integrated Weigh In Motion System:** Following Components should be required for Installation of Medium Speed Weigh In Motion System: -  
 Platform, Bending Plate, Tyre counters, Vehicle separators cum differentiators, length sensors to detect the vehicle length, Surge protection device cum junction box, WIM terminal / indicator, Reports generation.