



Traffic Logix School Zone System Specifications

1. General description:

Radar speed signs are proven to slow traffic by making drivers more aware of their speed. Powered either by a power grid, battery or using solar power, the signs provide an effective solution to the problem of speeding traffic. The Traffic Logix signs ensure optimal visibility and brilliance at far distances even in poor weather and high sun-glare conditions. The signs display the speed of approaching vehicles and flashes to warn drivers who exceed the threshold speed. Signs are ideal for usage in work zones, school zones, and on residential streets. Individual, LED PCB segments allows for cost efficient, quick and easy maintenance.

The Traffic Logix signs are fully compliant with MUTCD (US Department of Transportation's Federal Highway Administration's Manual on Uniform Traffic Control Devices) standards.

2. Dimensions of the signs:

- width 30"
- height 42"
- letter height 6"
- digit height 15"
- digit width 8"

3. Sign version:

- Flashing Beacon System
Standard yellow-faced sign with "Your Speed" displayed in black letters. Vehicle speed is displayed in highly visible LEDs. Regulatory white speed limit sign let's drivers know what the lower speed limit is when lights are flashing. Beacon system flashes during programmed times to let motorists know school time speed limits are in effect.

4. Specifications of the sign:

Operating voltage:	AC or 12 V DC
Max. power consumption SJT-02 (88 displayed):	13 W
Max. power consumption SJT-02V (88 displayed):	18 W
Power consumption without display	3 W
Temperature range	-40 F - 140 F
Dimming:	linear, 100 steps
Light factor:	100 % ÷ 1 %
Impact Protection:	IP 54
Number of LEDs (in numerical digits):	224
Display color:	yellow
LED intensity:	approx. 1 500 mcd/LED
Numerical Digit Segments: 14 individual and independent LED PCB segments comprised of 16 LEDs per segment.	
Speed range:	0 - 99

Character size:	6"
Numerical size:	15"
Interface:	Bluetooth V1.0
Dimensions:	30" x 42"
Housing:	Weather proof NEMA 3R specifications
Sign Face:	Vandal resistant and glare-free aluminum matrix
Weight:	45 lbs

LED Specifications

Speed "88":	224 LED Pixels. 19.780 cd/m ² , 1610 cd, 12 W ¹
Half angle of horizontal light distribution	+/- 12° (24° cone)
Luminance Ratio:	>20 ²
LED Lifespan	100,000 hours (11.4 years)

All above intensities are measured when LED's are operated at 30% of maximum nominal current; driving the LEDs with low current avoids aging effects. The design of the optical system with lenses that direct the LED light allows for reduced power consumption, allowing the sign to be optimally bright using only 30% of the power supply.

Optical and LED system allows the Traffic Logix signs to meet the highest requirement of NEMA TS4.1 and EN 12966 on luminance which require 7.440 cd/m² for yellow displays; as well as the required NEMA Luminance Ratio of 6, and EN of 10. The additional European requirement L3* for low sun conditions (below 10°) is also fulfilled by the signs.

The light distribution covers the requirements of classes a, b, c and d of NEMA, B1, B2, B3 and B4 of EN12966.

NEMA Color requirements for yellow and EN class C1 and C2 are complied with as well.

Radar

Technology	CW Doppler radar
Frequency	24 GHz (K-band)
EMC Specification	EN301-489/BSEN50293
Radio Specification	ETS300.440
Electrical Safety	EN60950
HA Specification	TR2123 (dynamic)

5. Optional data collection and software specifications:

Our radar signs feature a real time clock and a 64 kB non-volatile memory. The device counts the vehicles in specified time blocks and stores vehicle speed data in 17 speed bins, including a time stamp of the measurement period. The length of the time block is adjustable to 15 minutes, 30 minutes, or 1 hour. The speed bins

¹ Power consumption does not include Voltage drop or dissipation of power supplies

² Ratio between reflected luminance of external illuminated sign (40.000 lx @ 10°, 10.000 lx @ 5°) when switched OFF and luminance of active sign

are adjustable as well. You can choose the lower limit at which the sign will perform as well as the mile per hour increments at which information is calculated.

The capacity of the memory is 1524 blocks, corresponding to approximately 15 days at 15 minutes data collection periods or 60 days at 1 hour collection periods. If the memory is full, the next block of data replaces the oldest one so that the last 1524 blocks of data are available for reading at all times.

Information is transferred between the signs and your computer using Bluetooth wireless. The Bluetooth feature allows for wireless programming and downloading. Any computer with the attached software package installed can be used to access the contents of the sign memory. For ease of sorting and analysis, the software stores data in a Microsoft Excel file. The program also offers the convenient option to set application parameters wirelessly. Data can be used to create accurate before and after studies of the sign's effectiveness.

6. W11-1 Class 1 Bluetooth:

External Antenna	
Fully Qualified	Bluetooth system v2.0 + EDR, CE and FCC
Class 1 range,	up to 300 meters
Integrated chip antenna or UFL connector	
Industrial temperature range from	-40°C to +85°C
Enhanced Data Rate (EDR) compliant modulation modes	v2.0.E.2 of specification for both 2Mbps and 3Mbps
(USB 2.0 compatible)	
Coexistence	Support for 802.11
Flash Memory	8Mbits

7. Warranty:

A two (2) year warranty is provided on all radar speed signs. LEDs are covered by a ten (10) year warranty.

Unique market differentiators:

- 1- Class 1 Bluetooth extended range communication
- 2- Low Power consumption through magnification
- 3- Greater autonomy than standard sign
- 4- Polarization Filter
- 5- Unique vandalism protection
- 6- Self contained installation system