

Shirashian Co.

Throttle Position Sensor

SI-515 Series

Typical Application: Throttle & Pedal Position

Features / Benefits:

- Sealed, Spring Return Rotor
- Non-Adjustable Mounting
- Clockwise Rotation
- Mates with 3 Way "Mini-Timer" Style Connector

TYPICAL SPECIFICATIONS

ELECTRICAL

Total Resistance(Terminal 1-2):	2.0 K Ω \pm 20%
Wiper protection resistance (Wiper in zero-position,terminals 1-3):	700~1050 Ω
Linearity:	< \pm 1% (independent)
Usable Electrical Angle Area:	107.4 $^{\circ}$
Angle Between Internal Stops:	110 $^{\circ}$
Output Slope:	0.00927 (% / deg) = 46.35 mV / deg
Idle Voltage:	500 \pm 200 mV
W.O.T Voltage:	4440 (+260 mV,-460 mV)
Hysteresis:	< 1% Applied Voltage
Electrical Limit:	16 VDC Maximum
Operation voltage:	5 V
Maximum Power Rating:	0.08 Watts

MECHANICAL

Right Stop Position:	0 $^{\circ}$
Left Stop Position:	110 $^{\circ}$
Torque:	Start of Rotation, >0.015 Nm End of Rotation, <0.12 Nm
Stop Strength:	0.8 N
Air Passage Leak	No leak in air pressure= 2 bar

DURABILITY

Mechanical Cycling:	1.0 \times 10 ⁶ Full Strokes 0.5 \times 10 ⁶ Half Cycles 5.0 \times 10 ⁶ Dither Strokes
Standard Vibration:	24 hrs; 3 Planes 10 to 250 Hz; 1.36 – 32 g, 0 $^{\circ}$ to 80 $^{\circ}$ C
Thermal Shock:	100 Cycles, -40 $^{\circ}$ to 135 $^{\circ}$ C
Temperature Range (Operation & Storage):	-40 $^{\circ}$ to 135 $^{\circ}$ C
Total Resistance(Terminal 1-2):	2.0 K Ω \pm 20%



HEADQUARTER
Shirashian sanat co.
No.419, 10th St., 1st Blvd.,
Buali industrial estate
6518114334 Hamedan,
Iran
Tel/Fax: 0098 8134383212-13
Website:www.shirashianco.com
Email:info@shirashianco.com
Date: 11/26/2014

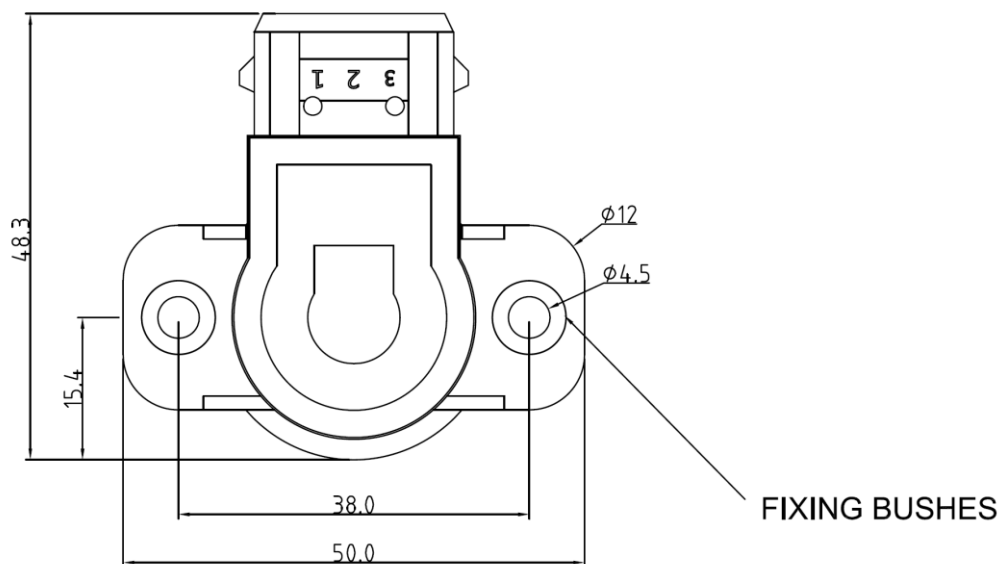
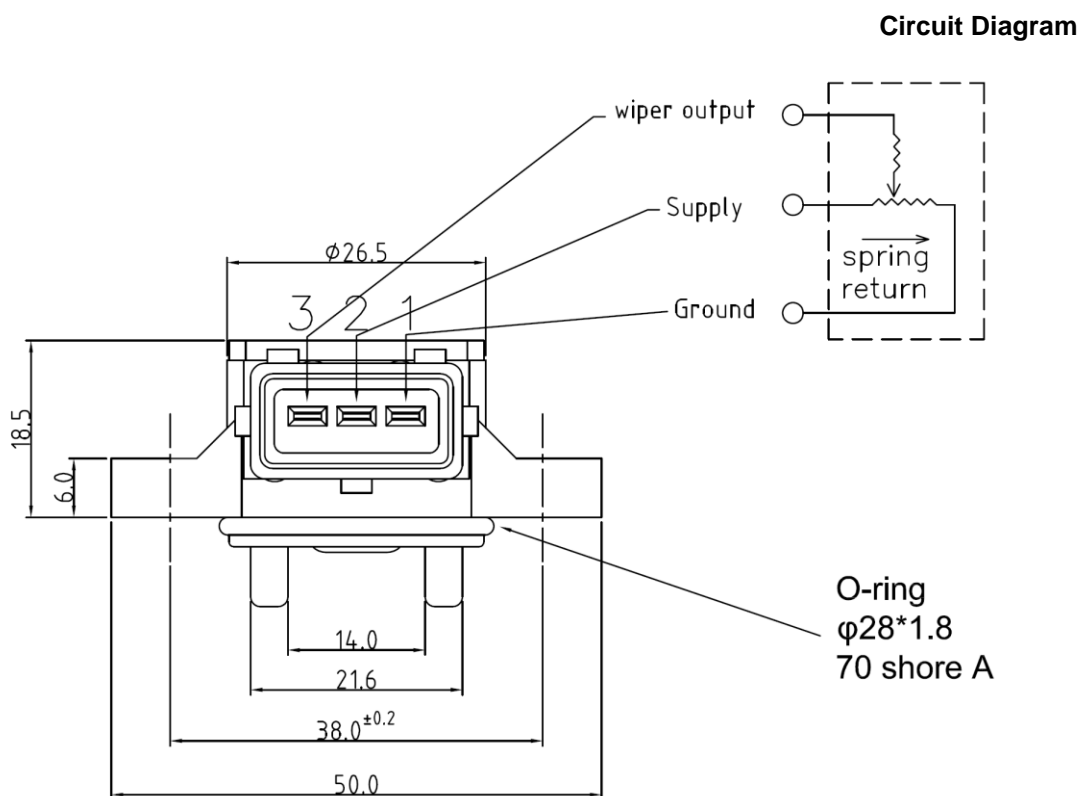
ENVIRONMENTAL

Salt Spray:	250 hrs.
Humidity:	96 hrs., 93% RH at 40°C
Resistant to gasoline, engine oil, brae fluid & antifreeze	

NOTE: These standard specifications have been met on existing production-tooled units that are tested on precise test equipment. Details are available including failure criteria. This data sheet does not constitute a warranty that the product will meet the above specifications while used in your application or attached to your test equipment.

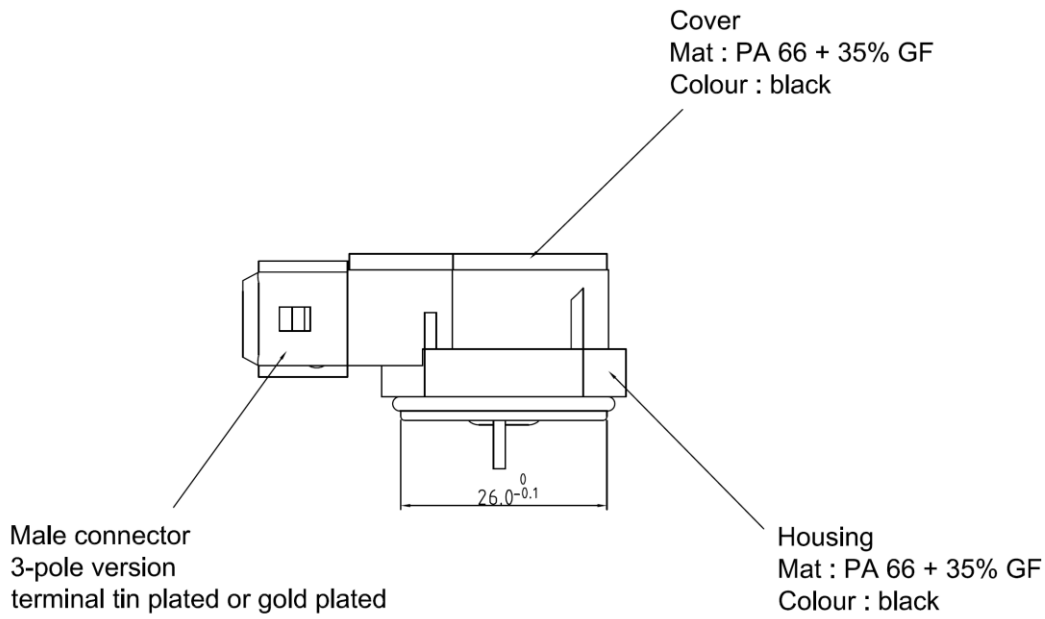
HEADQUARTER
Shirashian sanat co.
No.419, 10th St., 1st Blvd.,
Buali industrial estate
6518114334 Hamedan,
Iran
Tel/Fax: 0098 8134383212-13
Website: www.shirashianco.com
Email: info@shirashianco.com
Date: 11/26/2014

Dimensional Details (mm)



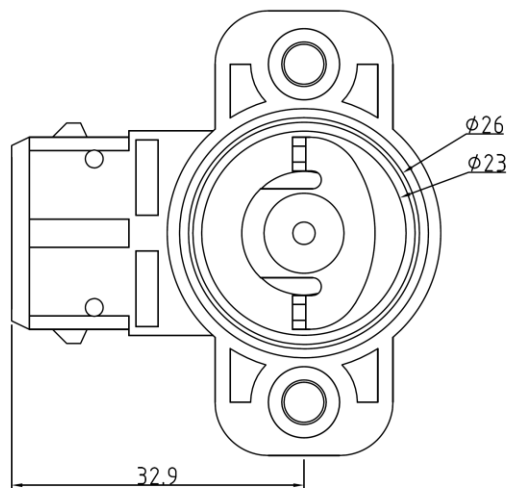
SI-515 Series

HEADQUARTER
 Shirashian sanat co.
 No.419, 10th St., 1st Blvd.,
 Buali industrial estate
 6518114334 Hamedan,
 Iran
 Tel/Fax: 0098 8134383212-13
 Website: www.shirashianco.com
 Email: info@shirashianco.com
 Date: 11/26/2014



TPS in First Mechanical Stop

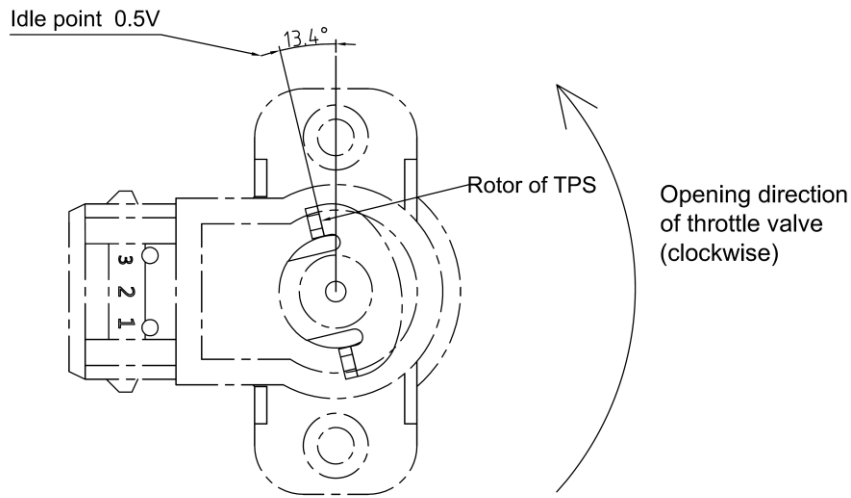
Note the viewpoint
(this is a back viewpoint, attention to the connector)



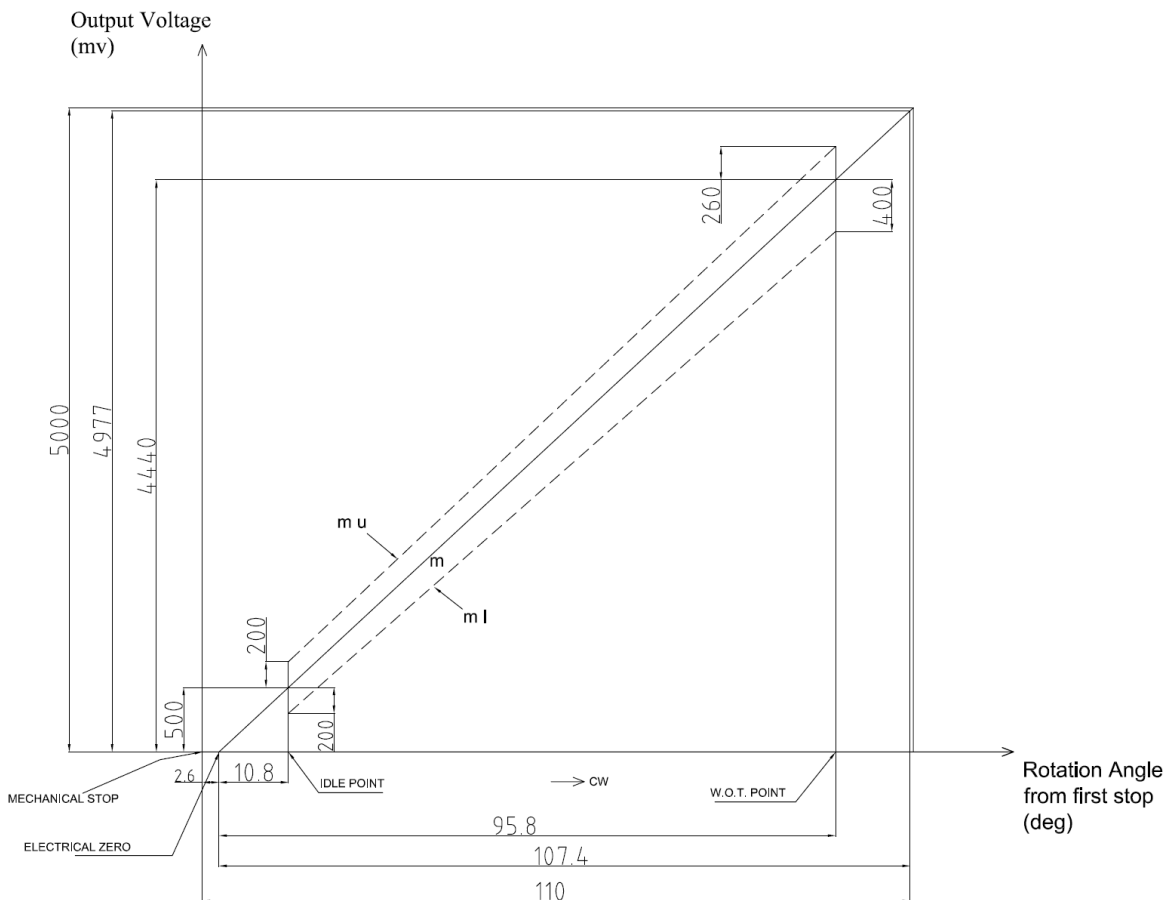
HEADQUARTER
Shirashian sanat co.
No.419, 10th St., 1st Blvd.,
Buali industrial estate
6518114334 Hamedan,
Iran
Tel/Fax: 0098 8134383212-13
Website: www.shirashianco.com
Email: info@shirashianco.com
Date: 11/26/2014

Throttle Shaft drawn in Idle Position

Note the viewpoint
(this is a front viewpoint, attention to the connector)



Electrical Characteristics

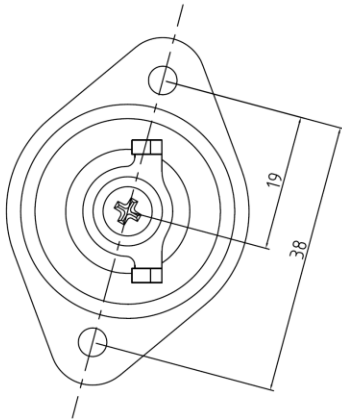


HEADQUARTER
Shirashian sanat co.
No.419, 10th St., 1st Blvd.,
Buali industrial estate
6518114334 Hamedan,
Iran
Tel/Fax: 0098 8134383212-13
Website: www.shirashianco.com
Email: info@shirashianco.com
Date: 11/26/2014

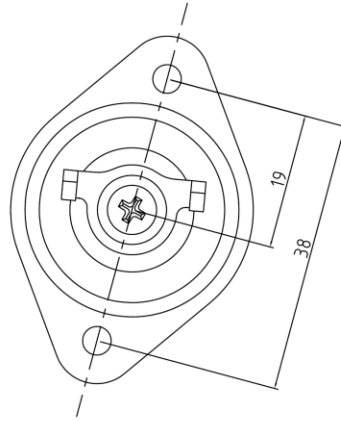
Throttle body lever, setup development picture

SI-515 Series

IDLE



WOT



T.P.S(THROTTLE POSITION SENSOR) FACE

T.P.S(THROTTLE POSITION SENSOR) FACE

