

# DSG-1201DUP SERIES DIGITAL/BAR-GRAPH TACHOMETER/SPEED SWITCH

- **Advanced device for measurement, display, control and protection**
- **Digital readout with analog bar graph display**
- **4 adjustable setpoints: programmable high or low, N.O. or N.C. outputs**
- **4-20mA output available**
- **Power from 12-36Vdc, signal from C.D. ignition or any type pick up**
- **Standard 4-1/2" round weather-resistant case**

The Altronic DSG -1201DUP series is an advanced digital/bar-graph setpoint gauge for monitoring and displaying speed or rate. The device can be used to monitor speeds of engines or other rotating equipment. The input pulse rate can originate from a C.D. ignition system, magnetic pick-up or other type of active pick-up varying from 0.5 to 500 pulses per revolution. The speed display can be at any designated ratio to the measured RPM. Power requirement is 12-36Vdc, 50mA maximum.

The front panel of the microprocessor-based gauge has a sealed membrane keypad for easy selection or adjustment of the input pulse count, speed ratio, decimal point and setpoints. The DSG-1201DUP has four setpoints with individual solid state outputs which can be programmed for either high or low, N.O. or N.C. operation. In addition, each setpoint is individually adjustable for hysteresis, trip delay time and reset delay time. The precise, programmable nature of the output switch operation allows these gauges to be used as control devices.

A unique feature of the DSG series gauges is the digital readout/bar-graph display. The analog bar-graph gives the operator an immediate indication of the reading as a percent of (user selectable) RPM span or span between high/low setpoints, as well as a reference to direction and amplitude of a rapid change in reading. The display also indicates "RPM" (which can be turned off for other rate applications) and annunciates alarms by number.

The DSG-1201DUP model offers a 4-20mA output option which is user-programmable from the front keypad. This feature can be used for feedback to a computer control system for process control or directly to an Altronic CPU or DISN ignition system for timing control.



CERTIFIED CLASS 1,  
DIVISIONS 1 AND 2,  
GROUP D

## Specifications

Power requirement .....	12-36Vdc, 50mA max.
Hazardous area classification .....	Class I, Div 2, Group D; Class I, Div 1, Group D with barrier (see "to order")
Instrument display .....	4-digit LCD, 0.4 inch height with 20-segment bar-graph
Units displayed .....	RPM or none
Range .....	0-9999, setable decimal
Instrument accuracy .....	±0.5%, ±1 digit
Display update rate .....	2 times per second
Output switches .....	4 solid state, N.O. or N.C. 200Vdc, 140mA continuous
Ambient temperature range ...	-40°F to +175°F / -40°C to +80°C

## To Order

### Digital/bar-graph setpoint gauge

Speed display with 4-20mA output ..... DSG-1201DUP  
 Note: Replaces former model DSG-120DU

### Magnetic pick ups (optional input device):

1.75" threaded length .....	691 118-1
2.50" threaded length.....	691 118-2
3.00" threaded length.....	691 118-3
4.50" threaded length.....	691 118-4
Cable assemblies, magnetic pick-ups:	
Unshielded type.....	693 104-x *
Shielded type, 180° connector.....	593 048-x **
Shielded type, 90° connector.....	593 054-x **

### Hall-effect pick ups (optional input device):

1.75" threaded length .....	791 050-1
2.50" threaded length.....	791 050-2
4.50" threaded length.....	791 050-4
Cable assemblies, Hall-effect pick-ups:	
Unshielded type.....	593 050
Shielded type, 180° connector.....	593 052-x **
Shielded type, 90° connector.....	593 057-x **

\*See current price list, under CPU-90 for available lengths  
 \*\*See current price list, under parts for available lengths

### Class I, Division I, Group D hazardous area application

#### Intrinsically safe option:

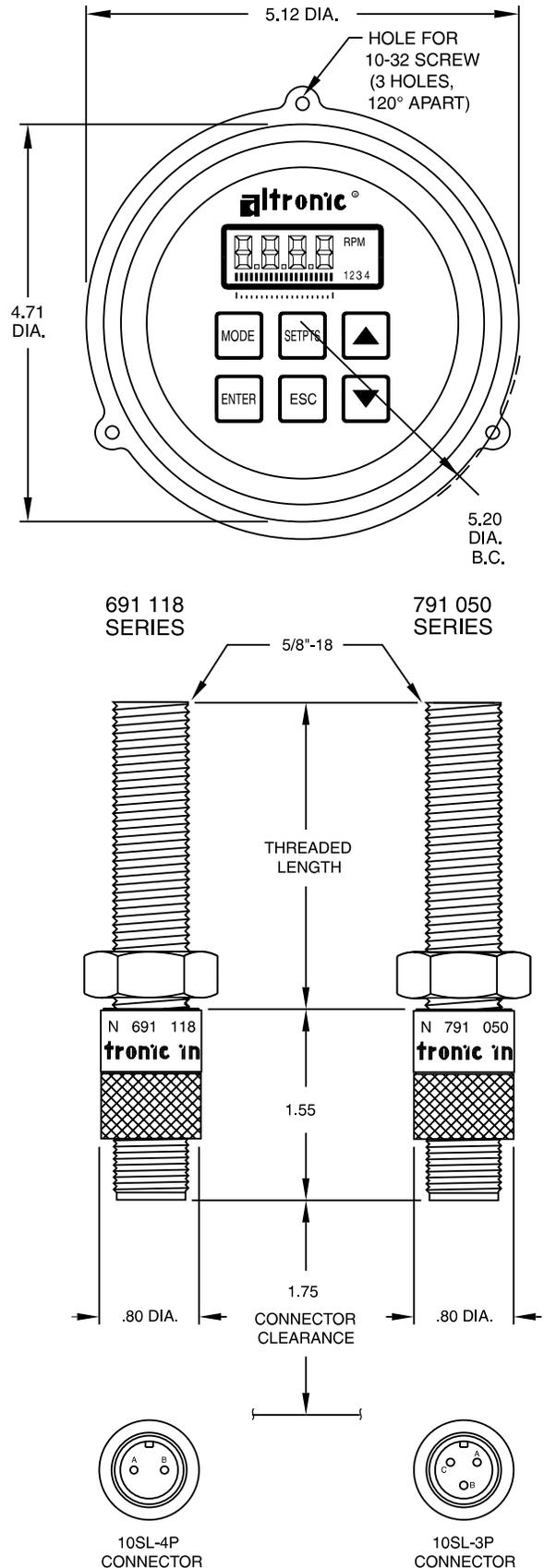
Power from a CSA-certified zener barrier rated 30 volts max., 120 Ohms min., such as Stahl part no. 9001/01-280-165-10.

#### When signal input is from C.D. ignition system:

Barrier, negative ground ignition .....	690 107
Barrier, positive ground ignition .....	690108
Cable assembly, 690 barriers .....	693106-1

Class I, Group D enclosure option: Add -x to above gauge part number.

## Dimensions



# ALTRONIC

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