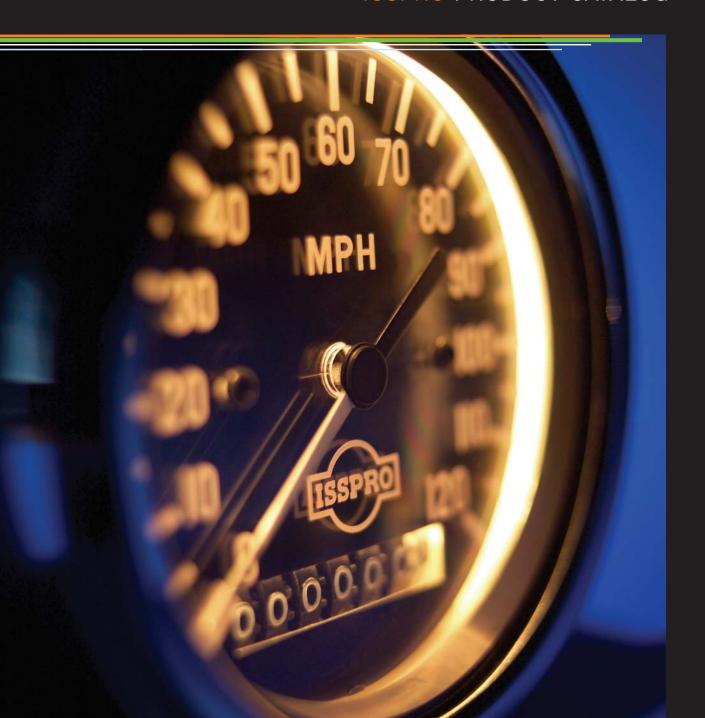


# **ISSPRO** PRODUCT CATALOG



# COMPANY OVERVIEW

WHO WE ARE. For over 55 years, ISSPRO has manufactured OEM instrumentation products for the global marketplace and now also serves as a complete instrumentation supplier to the aftermarket. From concept to design to production, ISSPRO is committed to delivering superior products that meet the technical and budget requirements of its customers.

MARKETS WE SERVE. ISSPRO has earned its market leading position by being the highest quality, lowest cost producer of instrumentation and electronic components and systems to the heavy duty, industrial, agriculture, marine and retail markets including:

- Heavy Truck Class 5-8
- Agricultural
- Marine
- Automotive
- Handling Equipment
- Recreational Vehicles
- All Terrain Vehicles
- Military
- Bus School and Commuter
- Golf Carts

• Fire Equipment Generator Units

OUR PRODUCTS. We deliver a wide range of instrumentation and sending unit components including:

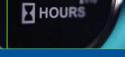
- Custom Instrument Clusters
- Speedometers and Tachometers Electronic/Mechanical
- Fuel Senders and Sending Units
- Pyrometers, Thermocouples and Lead Wires
- · Magnetic Sensors and Signal Generators
- Pulse Distribution Modules
- Electronic Ratio Adapters
- Electric and Mechanical Gauges
- Engine Shutdowns, Low Water Alarms, Electronic Speed and Exhaust Switches













SPECIALTY PRODUCTS & ACCESSORIES

ENHANCED VISIBILITY (EV) PRODUCTS



**GAUGES & SENDERS** 

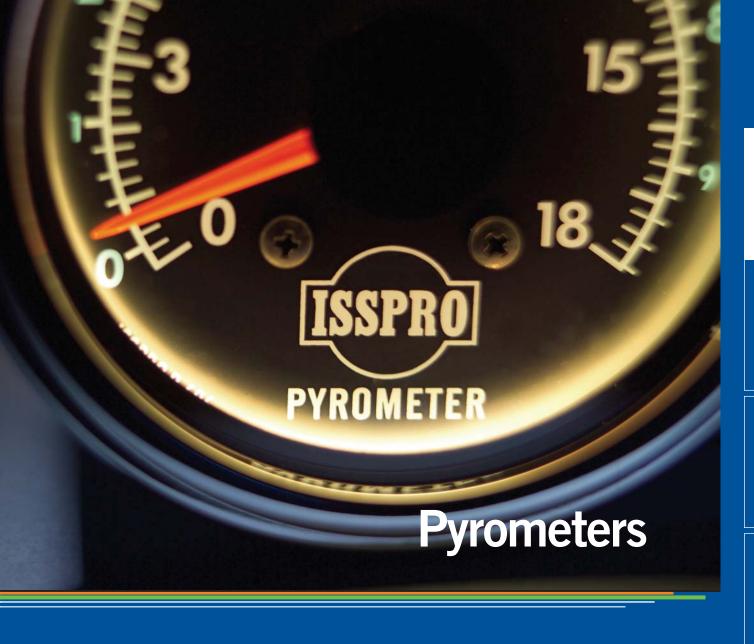




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# ABOUT ISSPRO, INC. CATALOG ISSPRO, INC. has made every effort to insure that information in this catalog is accurate, however we are not responsible for errors or omissions. Because of our dedication to excellence and improvement, ISSPRO, INC. reserves the right to change specifications at any time, without notice or obligation. Consult factory if certified dimensions are needed.



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#### **Pyrometers**

As one of the world's largest suppliers of pyrometers to the heavy duty, marine, automotive and industrial markets, ISSPRO, INC. offers a wide variety of pyrometers specifically for your needs. ISSPRO, INC. can also customize your pyrometer applications.

ISSPRO, INC. offers two types of pyrometer systems:

- The most common is type K (chromel-alumel), designed for high temperature applications (0-2000°F). This is used in most diesel, natural gas and gas engine applications.
- The low temperature system, type J, (iron-constantan) operates in the 0-600°F range. These are used in special applications where manifold head temperature are being sensed instead of exhaust temperature.

# TO DESIGN YOUR OWN PYROMETER SYSTEM, YOU WILL NEED...

- PYROMETER To choose the proper pyrometer, determine the temperature range and size of the mounting hole.
- LEAD WIRE An R660 lead wire must be used with a type K pyrometer. An R653 lead wire is used with a type J pyrometer.
- THERMOCOUPLE Type K for sensing exhaust temperature. (Type J for sensing head temperature).









# 2 1/16" Pyrometers

Use type K thermocouple.

PART NUMBER	°F SCALE	°C SCALE	SWEEP	BEZEL	REMARKS
R611	0-1200°	0-650°	250°	black	
R607G	0-1500°	None	250°	black	
R607T	0-1500°	None	250°	black	pre-turbo color code dial
R607VW	0-1500°	None	250°	black	post-turbo color code dial
R605	300-1500°	200-800°	100°	black	
R605C	None	200-800°	100°	black	
R605P	300-1500°	200-800°	100°	chrome	
R605SC	300-1500°	200-800°	100°	satin chrome	
R607	0-1800°	0-1000°	250°	black	
R607C	None	0-1000°	250°	black	
R607P	0-1800°	0-1000°	250°	chrome	
R607TT	0-1800°	None	250°	black	dial says turbo temp

# 2 1/16" Digital Pyrometers

All units have 0.3" LED displays. Centigrade scales are also available. Consult factory. Alarm output available.

PART NUMBER	°F SCALE	PROBE	BEZEL	
R630	0-1990°	type K	black	
R630-24VDC	0-1990°	type K	black	
R630P	0-1990°	type K	chrome	

# 2 3/4" Pyrometers - 3 Hole Screw Mount

Use type K thermocouple.

PART NUMBER	°F SCALE	°C SCALE	SWEEP	BEZEL	REMARKS	
R602	0-1800°	0-1000°	100°	black		
R602I	0-1800°	None	100°	black	color coded dial	

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DIAL FACES WITH
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FOR DETAILS.

(800) 888-8065

















# 3" Pyrometers

Use type K thermocouple.

PART NUMBER	°F SCALE	°C SCALE	SWEEP	BEZEL	REMARKS
R610	0-1200°	0-650°	250°	black	
R604	0-1800°	0-1000°	100°	black	
R604C	None	0-1000°	100°	black	
R604I	0-1800°	None	100°	satin chrome	color coded dial
R604IC	None	0-1000°	100°	black	color coded dial
R604P	0-1800°	0-1000°	100°	chrome	
R606	0-1800°	0-1000°	250°	black	
R606C	None	0-1000°	250°	black	
R606P	0-1800°	0-1000°	250°	chrome	

# 3" Dual Pyrometers

Use two type K thermocouples.

PART NUMBER	°F SCALE	°C SCALE	BEZEL	
R612	0-1200°	0-650°	black	
R612P	0-1200°	0-650°	chrome	
R624	300-1500°	200-800°	black	
R624P	300-1500°	200-800°	chrome	

#### 3" Turbocator

Dual scales allow monitoring of exhaust temperature on the lower scale and turbo boost pressure on the upper scale. Turbocator kits (R609-6,-10,-14) include tubing, lead wire and thermocouple (R650, type K). 100° sweep. Chrome bezel available.

PART NUMBER	°F SCALE	°C SCALE	BOOST RANGE	BEZEL	REMARKS	
R609	300-1500°	None	0-30 psi	black		
R609-6	300-1500°	None	0-30 psi	black	Kit	
R609-10	300-1500°	None	0-30 psi	black	Kit	
R609-14	300-1500°	None	0-30 psi	black	Kit	

ISSPRO, INC.

AT YOUR SERVICE FOR OVER 55 YEARS!









#### Thermocouples

Standard temperature – Brass fitting for use in diesel applications. High temperature (designated by HT in part number) – Inconel tip and steel fitting for use in gasoline and propane applications.

PART NUMBER	°F SCALE	TYPE	MOUNTING	PROBE LENGTH	PLUG
R650S	0-1600°	K	1/4" NPTF	1.6"	
R650SPL	0-1600°	K	1/4" NPTF	1.6"	yes
R658S	0-1600°	K	1/4" NPTF	1.6"/ Adjustable	
R658S-8F	0-1600°	K	1/8" NPTF	1.6"/ Adjustable	no
R658SPL	0-1600°	K	1/4" NPTF	1.6"/ Adjustable	yes
R650	0-1600°	K	1/4" NPTF	2.25"	
R650PL	0-1600°	K	1/4" NPTF	2.25"	yes
R658	0-1600°	K	1/4" NPTF	2.25"/ Adjustable	
R658PL	0-1600°	K	1/4" NPTF	2.25"/ Adjustable	yes
R658SHT	0-2000°	K	1/4" NPTF	1.6"/ Adjustable	
R658SHT-PL	0-2000°	K	1/4" NPTF	1.6"/ Adjustable	yes
R650SHT	0-2000°	K	1/4" NPTF	1.6"	
R650SHT-PL	0-2000°	K	1/4" NPTF	1.6"	yes
R650HT	0-2000°	K	1/4" NPTF	2.25"	
R650HT-PL	0-2000°	K	1/4" NPTF	2.25"	yes
R658HT	0-2000°	K	1/4" NPTF	2.25"/ Adjustable	
R658HT-PL	0-2000°	K	1/4" NPTF	2.25"/ Adjustable	yes
R650A-HT	0-2000°	K	clamp	2.25"/ Adjustable	
R650A-HT-PL	0-2000°	K	clamp	2.25"/ Adjustable	yes

# Lead Wires

High temperature extension type lead wire. Ensures accurate readings. Numerical suffix indicates length in feet. Longer lengths are available by special order.

PART NUMBER	WITH PLUG-IN CONNECTOR	REMARKS
R660-6	R660-6PL	
R660-8	R660-8PL	
R660-10	R660-10PL	
R660-14	R660-14PL	
R660-XX	R660-XXPL	ISSPRO lead wires in stock up to 75' call for details

# Thermocouple Accessories

PART NUMBER	FITTING	MOUNTING	REMARKS
R680	Weld bushing	Weld onto exhaust tube for a 1/4"	NPTF connection to mount thermocouple
R681	Compression fitting	Brass, 1/8-27 NPTF	
R682	Compression fitting	Brass, 1/4-18 NPTF	
R683	Compression fitting	Steel, 1/8-27 NPTF	For high temperature applications
R684	Compression fitting	Steel, 1/4-18 NPTF	For high temperature applications
R7980	Fiberglass sleeves		Protects thermocouple leads from shorting to each other







R6514







#### Multi-Station Pyrometer

**R647** Multi Station Pyrometer (Diesel) 0-1500 Degree Range
Designed for engine test stands and engine room applications. Will accept up to 16 inputs. These can be individually selected with a rotary switch located on the front of the pyrometer.

R648 Multi Station Pyrometer (Gas) 0-2000 Degree Range

#### Pyrometer Tester

**R600** Pyrometer Tester

The tester is used for testing lead wires, thermocouples and pyrometers.

#### Low Temperature (Type J) Pyrometers

Features white face, black numerals, uses type J thermocouple and low temperature lead wire.

PART NUMBER	°F SCALE	°C SCALE	SIZE	BEZEL
R616	0-600°	None	2 1/16"	black
R614	0-600°	None	3"	black

#### Low Temperature Thermocouples

PART NUMBER	°F SCALE	TYPE	MOUNTING	
R654	0-600°	J	1/4" NPTF	
Low temperature probe. Us	e with low temperature py	rometers and R653 lead w	ire.	
R6514	0-600°	J	14mm ring	
Designed to measure head	temperature. Resistant to	shock, vibration and temperature	eratures up to 600°F. Installed in pla	ce of spark
plug gasket and furnished	with quick disconnect ele-	ctrical fitting. Use R653 lea	ad wire.	

#### Low Temperature Lead Wires

R653-(# of feet) Low temperature iron constantan. Weather pack connector included. 3 feet is standard.

Speedometers & Tachometers

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#### Speedometers

ISSPRO, INC. is one of the largest suppliers of speedometers to heavy duty OEMs. They are well known for their rugged reliability and easy replacement. High quality mechanical and programmable speedometers, sensors and generators are offered.

- All models include light kit and mounting hardware.
- Hourmeters reflect true running hours.
- Black Bezels are standard on most models call factory for options (800-888-8065).
- Made in the USA.\*
- \* Except 2 1/16" Electronic Tachometers.

#### **Product Specifications**

#### **Mechanical Speedometers & Tachometers**

Fits SAE 3 3/8" standard mounting hole, 4 5/8" (118 mm) and 5" diameter models available.

**Speedometer:** Meets SAE J678,  $\pm$  2% full scale

@ -7°C to 54°C

**Odometer:**  $\pm$  0.3% error @ -7°C to 54°C **Tachometer:** Meets SAE J678,  $\pm$  2% full scale

@ -7°C to 54°C

Hourmeter: ± 2% @ 24°C

#### **Electric Speedometers & Tachometers**

Fits SAE 3 3/8" standard mounting hole,

4 5/8" (118 mm) and 5" diameter models available. **Speedometer:** Meets SAE J1226 at ambient,  $\pm$  2%

full scale @ -7°C to + 54°C

**Odometer:**  $\pm$  0.3% error @ -7°C to + 54°C **Tachometer:** Meets SAE J1399,  $\pm$  2% full scale

 $@ -7^{\circ}C \text{ to} + 54^{\circ}C$ 

**Hourmeter:**  $\pm$  1% @ -7°C to + 54°C

OPTIONAL
FEATURE FOR BEZELS,
POINTER COLOR, FACE
DIAL/RANGES ARE
AVAILABLE.
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#### Microprocessor Product Information

A quick comparison of analog and microprocessor gauges:

#### **Analog Positives:**

- Can be modified for infinite variations.
- Can be adjusted so that two gauges are identical (tachometer only).
- No RF noise generated.

#### Analog Negatives:

■ Limited in high pulses per mile.

#### Microprocessor Positives:

- No need to adjust.
- Very stable over time and temperature.
- Faster response.
- Handles larger range of pulses per mile.
- Very accurate odometer and hour meter information.

#### Microprocessor Negatives:

- Generates RF interference.
- Limited in lower pulses per mile.

#### Mechanical Speedometers

These gauges are driven mechanically by a speedometer cable. They are calibrated for use in applications generating 1,000 cable revolutions per mile (except metric units) with a standard .104" square tip and 5/8"-18 connection.

PART NUMBER	SIZE	SCALE	ODOMETER	BEZEL	POINTER
R8492	3 3/8"	80 mph	yes + trip	black	white tip
R8493	3 3/8"	80 mph	yes + trip	chrome	white tip
R8498	3 3/8"	80 mph	yes	chrome	white tip
R8499	3 3/8"	80 mph	yes	black	white tip
R8496	3 3/8"	E/M, 80 mph/ 130 kph	yes	black	red-orange tip
R8440	3 3/8"	120 mph	yes	chrome	white tip
R8441	3 3/8"	120 mph	yes	black	white tip
R8494	3 3/8"	120 mph	yes + trip	chrome	white tip
R8495	3 3/8"	120 mph	yes + trip	black	white tip
R8422	4 5/8"	E/M, 80 mph/ 130 kph	yes	black	red-orange tip
R8424	4 5/8"	140 kph	yes, metric	black	red-orange tip
R8430	5"	80 mph	yes	black	white tip

























# Signal Generators (30 Pulses/Rev)

PART NUMBER	THREAD SIZE	CONNECTION
R8940	Sender, 7/8"-18, feed through.	One male & one female drive tip required.
R8970	Sender, 7/8"-18, generator.	One male drive tip required.

# **Drive Tips for Generators**

MALE	FEMALE
R8974 .104" square	R8976 .104" square hole
R8979 .150" square	R8977 .152" tang hole
R8971 .152" tang	R8978 .187" tang hole
R8972 .187" tang	R8975 .203" tang hole
R8973 .203" tang	

# Magnetic Sensors

All mounting threads are 3/4"-16, except R8933, which is 5/8"-18.

PART NUMBER	HOUSING LENGTH	CONNECTION	
R8930	2.6"	wire leads	
R8938	2.6"	plug w/mating conn	
R8935	3.0"	terminals	
R8932	3.1"	wire leads	
R8937	3.5"	terminals	
R8933	4.0"	wire leads	
R8931	4.4"	wire leads	
R8936	4.8"	terminals	

#### Programmable Speedometers

These speedometers are driven electronically by a signal generated from a pulse generator or magnetic pickup. They function over a broad range of applications by using dip switches for field programmability. For replacement applications, they will accept signals from most sensors or generators in use. For 24 VDC NG applications, a 24 VDC bulb must be purchased separately. See Gauge Lighting section on page 37.

- M designates microprocessor (non-microprocessor units are available for special applications). See page 12 for details.
- Optional styling features are also available. Consult factory at 800-888-8065.
- "-SET" units have a field resettable odometer that can be set to match the mileage on the unit that is being replaced.
- Two speed axle switching included on 4 5/8" models and microprocessor units.
- Consult factory for positive ground applications.

PART NUMBER	SIZE	SCALE	ODOMETER	BEZEL	POINTER
R8474	3 3/8"	E/M, 30 mph / 50 kph	no	black	white tip
R8475	3 3/8"	E/M, 30 mph / 50 kph	yes	black	white tip
R8478	3 3/8"	E/M, 50 mph / 80 kph	no	black	white tip
R8479	3 3/8"	E/M, 50 mph / 80 kph	yes	black	white tip
R8450	3 3/8"	E, 80 mph	no	black	white tip
R8450M	3 3/8"	E, 80 mph	no	black	white tip
R8480	3 3/8"	E, 80 mph	yes	black	white tip
R8480-SET	3 3/8"	E, 80 mph	yes, resettable	black	white tip
R8480C	3 3/8"	E, 80 mph	yes	chrome	white tip
R8480C-SET	3 3/8"	E, 80 mph	yes, resettable	chrome	white tip
R8480M	3 3/8"	E, 80 mph	yes	black	white tip
R8480M-SET	3 3/8"	E, 80 mph	yes, resettable	black	white tip
R8480MC	3 3/8"	E, 80 mph	yes	chrome	white tip
R8480MC-SET	3 3/8"	E, 80 mph	yes, resettable	chrome	white tip
R8460	3 3/8"	E/M, 80 mph / 130 kph	yes	black	red orange tip
R8460M	3 3/8"	E/M, 80 mph / 130 kph	yes	black	red orange tip
R8460M-SET	3 3/8"	E/M, 80 mph / 130 kph	yes, resettable	black	red orange tip
R8460MC	3 3/8"	E/M, 80 mph / 130 kph	yes	chrome	red orange tip
R8482	3 3/8"	E, 120 mph	yes	black	white tip
R8482C	3 3/8"	E, 120 mph	yes	chrome	white tip
R8401	3 3/8"	M, 140 kph	yes, metric	black	white tip
R8401M	3 3/8"	M, 140kph	yes, metric	black	white tip
R8470*	3 3/8"	E/M, 170 mph / 274 kph	yes	chrome	white tip
R8471*	3 3/8"	E/M, 170 mph / 274 kph	yes	black	white tip
R8416	4 5/8"	E/M, 85 mph / 140 kph	yes	black	red orange tip
R8418	4 5/8"	M, 140 kph	yes, metric	black	red orange tip
R8410	5"	E, 80 mph	yes	black	white tip
R8410R	5"	E, 80 mph	yes	black	red orange tip
R8412	5"	E/M, 80 mph / 130 kph	yes	black	red orange tip

<sup>\*</sup> No logo.

















#### **Tachometers**

As with our speedometers, ISSPRO, INC.'s tachometer line is designed to withstand adverse environments and is the most comprehensive of any OEM and aftermarket supplier. Mechanical, programmable, ignition and alternator tachometers are available. Optional styling features such as bezels, ranges, custom dials and pointer colors are available by contacting the factory. Non-microprocessor units are available for special applications.

#### **Mechanical Tachometers**

These tachometers are cable driven and offer the same features as our mechanical speedometers. They are rugged and reliable for new installations or replacement applications.

Made in the USA.

PART NUMBER	SIZE	SCALE	COUNTER	BEZEL	POINTER	RATIO
RTH88	3 3/8"	0-2500 rpm	yes	chrome	all white	1:1
RTH89	3 3/8"	0-2500 rpm	yes	chrome	all white	1:1 ccw
RTH91	3 3/8"	0-2500 rpm	yes	chrome	all white	.5:1
R8597	3 3/8"	0-3500 rpm	no	black	white tip	.5:1
R8597-001	3 3/8"	0-3500 rpm	no	chrome	white tip	.5:1
R8598	3 3/8"	0-3500 rpm	yes	chrome	white tip	.5:1
R85981	3 3/8"	0-3500 rpm	no	chrome	white tip	1:1
R85985	3 3/8"	0-3500 rpm	yes	chrome	white tip	1:1
R8599	3 3/8"	0-3500 rpm	yes	black	white tip	.5:1
R85991	3 3/8"	0-3500 rpm	no	black	white tip	1:1
R85995	3 3/8"	0-3500 rpm	yes	black	white tip	1:1
R85700	4 5/8"	0-3500 rpm	no	black	red-orange tip	.5:1
R85705	4 5/8"	0-3500 rpm	yes	black	red-orange tip	.5:1
R8550	5"	0-3000 rpm	no	black	white tip	.5:1
R85505	5"	0-3000 rpm	yes	black	white tip	.5:1

#### Interconnect Harnesses

For installation of ISSPRO, INC. speedometers and tachometers in original electronic equipment applications.

PART NUMBER	APPLICATIONS
R7032	Peterbilt part numbers: 17-03551-001 for R8450, 17-03551-002 for R8480,
	17-03552-001 for R8530, 17-03552-002 for R85305.
	Kenworth part numbers: 3k tachometer with or without hourmeter for R8530.
R7034	Peterbilt part numbers: 17-03190 for R8480, 17-03183 for R8530.
R7036	Navistar part numbers: 1682070C91 for R8416 or R8418, 1682071C91 for ISSPRO, INC. unit R85600.
R7038	Kenworth K152-473-1 for ISSPRO, INC. unit R8540.
R7040	Kenworth K152-471-1 for ISSPRO, INC. unit R8412.

# Programmable Tachometers

These instruments are designed to accept signals from pulse generators, magnetic senders or alternator taps. For 24 VDC NG applications, a 24 VDC bulb must be purchased separately. See page 32 in Specialty Products & Accessories section of this catalog.

- Hourmeters count only when a signal is present (engine running).
- M designates microprocessor (non-microprocessor units are available for special applications). See page 12 for details.
- Optional styling bezels, ranges, custom face dials and pointer colors available. Consult factory.
- Consult factory for positive ground applications.

#### Programmable Tachometers

PART NUMBER	SIZE	SCALE	HOURMETER	BEZEL	POINTER
R8529	3 3/8"	0-2000 rpm	no	black	white tip
R8529M	3 3/8"	0-2000 rpm	no	black	white tip
R85295	3 3/8"	0-2000 rpm	yes	black	white tip
R85295M	3 3/8"	0-2000 rpm	yes	black	white tip
R8530	3 3/8"	0-3000 rpm	no	black	white tip
R8530C	3 3/8"	0-3000 rpm	no	chrome	white tip
R8530M	3 3/8"	0-3000 rpm	no	black	white tip
R8530MC	3 3/8"	0-3000 rpm	no	chrome	white tip
R85305	3 3/8"	0-3000 rpm	yes	black	white tip
R85305C	3 3/8"	0-3000 rpm	yes	chrome	white tip
R85305M	3 3/8"	0-3000 rpm	yes	black	white tip
R85305M-SET	3 3/8"	0-3000 rpm	yes, resettable	black	white tip
R85305MC	3 3/8"	0-3000 rpm	yes	chrome	white tip
R8531	3 3/8"	E/M, 0-3000 rpm	no	black	red-orange tip
R8531M	3 3/8"	E/M, 0-3000 rpm	no	black	red-orange tip
R85315	3 3/8"	E/M, 0-3000 rpm	yes	black	red-orange tip
R85315M	3 3/8"	E/M, 0-3000 rpm	yes	black	red-orange-tip
R8585	3 3/8"	0-4000 rpm	no	black	white tip
R8585C	3 3/8"	0-4000 rpm	no	chrome	white tip
R8585M	3 3/8"	0-4000 rpm	no	black	white tip
R85855	3 3/8"	0-4000 rpm	yes	black	white tip
R85855C	3 3/8"	0-4000 rpm	yes	chrome	white tip
R85855M	3 3/8"	0-4000 rpm	yes	black	white tip
R8586	3 3/8"	0-5000 rpm	no	black	white tip
R8586M	3 3/8"	0-5000 rpm	no	black	white tip
R85865	3 3/8"	0-5000 rpm	yes	black	white tip
R85865M	3 3/8"	0-5000 rpm	yes	black	white tip
R8584	3 3/8"	0-6000 rpm	no	black	white tip
R8584M	3 3/8"	0-6000 rpm	no	black	white tip
R85845	3 3/8"	0-6000 rpm	yes	black	white tip
R85845M	3 3/8"	0-6000 rpm	yes	black	white tip
R8588	3 3/8"	0-8000 rpm	no	black	white tip
R8588M	3 3/8"	0-8000 rpm	no	black	white tip
R85600	4 5/8"	0-3500 rpm	no	black	red-orange tip
R8540	5"	0-3000 rpm	no	black	white tip
R8540R	5"	0-3000 rpm	no	black	red-orange tip

















#### 2 1/16" Electronic Tachometers

These tachometers are used in small engine applications such as the 6.2/6.5 liter GM Diesel, 6.9/7.3 Ford Diesel and Dodge/Cummins.

- All units can be used with any sensor kit listed in this section.
- All units are 12 VDC NG only.
- To install sensor, mount two magnets to front engine pulley and sensor to a pan bolt.

R8504

R8591

Select a tachometer and sensor kit for your application:

**APPLICATION RPM** SENSOR KIT Universal 3k 3K R8501 R8906 Dodge/ Cummins, pre 92 3K R8501 R8912 Dodge/ Cummins, 92 & later R8501 R8912-92 3K GM 6.2/6.5 liter R8503 R8900 4K Ford 6.9/7.3 liter R8503 R8901 4K R8906 Universal 4k 4K R8503 R8504 R8906 Universal 5k 5K

5K

6K

Replacement parts for sensor kit at left.

Not needed for	new installations.	
MAGNET KIT	SENSOR ONLY	
R8911	R8906-S0	
R8911	R8912-S0	
N/A	N/A	
R8911	R8900-S0	
R8911	R8901-S0	
R8911	R8906-S0	

#### Hand Held Tachometers

R1620C Digital Hand Held Tachometer

Measures rotational speeds without mechanical contact on any rotating object. Included is carrying case, batteries and reflective tape. Features:

R8906

R8906

■ Memory.

Volkswagen

Universal 6k

- Rugged lightweight construction.
- Accuracy: ± .1 rpm, 5 to 999.9 rpm, ± 1 rpm, 1,000 to 100,000 rpm.
- Accurate digital LCD readout.
- Range: 6 to 100,000 rpm.

INC.

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R1620-TAPE Replacement reflective tape, one 2" piece.

#### 3 3/8" Alternator Tachometers

These products are designed for alternator applications with an alternating current tap and are field adjustable. For 24 VDC NG applications, a 24 VDC bulb must be purchased separately. See Gauge Lighting section on page 37.

■ 12 or 24 VDC NG operation.

PART NUMBER	SCALE	HOURMETER	POINTER	
R85200	0-2000 rpm	no	white tip	
R85205	0-2000 rpm	yes	white tip	
R85210	0-3000 rpm	no	white tip	
R85215	0-3000 rpm	yes	white tip	
R85220	0-4000 rpm	no	white tip	
R85220R	0-4000 rpm	no	red-orange tip	
R85225	0-4000 rpm	yes	white tip	
R85230	0-6000 rpm	no	white tip	
R85235	0-6000 rpm	yes	white tip	
R85240	0-8000 rpm	no	white tip	
R85245	0-8000 rpm	yes	white tip	

#### Speedometer & Tachometer Cable Parts

ISSPRO, INC. offers a complete selection of tips, ferrules, core and casing for mechanical speedometer and tachometer drives. Commonly ordered items are listed below. Contact factory for products not listed here.

\*Made in the USA.

PART NUMBER	DESCRIPTION
R2201	Comp. ferrule for .445 hsg
R2202	Upper ferrule for .445 hsg, 5/8-18 nut
R2203	Lower ferrule for .445 hsg
R2204	Nut, 7/8-18
R2205	Lower tip for .150 core, .150" sq
R2206	Short tip for .150 core, .104" sq
R2208	Lower tip for .150 core, .203" tang
R2209	Lower tip for .150 core, .187" tang
R2210	Lower tip for .150 core, .152" tang
R2211	Lower tip for .150 core, .104 sq
R2212	Upper tip for .150 core, .104 sq
R2213	Comp. tip for .150 core, .152" tang
R2214	Comp. tip for .150 core, .187" tang
R2215	Comp. tip for .150 core, .203" tang
R2216	Comp. tip for .150 core, .104" sq
R2217	Comp. tip for .150 core, .150" sq
R2218	Upper tip for .150 core, .187" sq hole
R2219	Lower tip for .150 core, .203" tang
R2220	Nut, 5/8-18

PART NUMBER	DESCRIPTION
R2225	Lower tip for .150 core,.124" sq
R2227	Extension tip for .150 core, .203" tang hole
R2230	Extension tip for .150 core, .104" sq
R2231	Extension ferrule for .445 hsg
R2250	Upper ferrule for .330 housing, GM
R2252	Upper ferrule for .330 housing, Ford
R2253	Upper ferrule for .330 housing
R2254	Lower ferrule for .330 housing
R2433	Casing, .445 metal-vinyl, 100'
R2434	Core, .130, 100'
R2435	Core, .130, 500'
R2436	Core, .130, 1000'
R2437	Core, .150, 100'
R2438	Core, .150, 500'
R2439	Core, .150, 1000'
R2440	Core, .187, 50'
R2441	Core, .187, 100'
R2456	Casing, .330, metal-vinyl, 100'
	UR .

DIO YOU KNOW ISSPRO
CAN MANUFACTURE
SPEEDO AND TACHOMETER
CABLES?
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FOR DETAILS.

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#### Ignition Tachometers

These tachometers are designed for most standard ignition systems that have a coil type ignition or tach output connection. Applications are for 4, 6 or 8 cylinder, four stroke engines. For 24 VDC NG applications, a 24 VDC bulb must be purchased separately. See Gauge Lighting section on page 37.

- 12 or 24 VDC NG operation on 3 3/8" air core units.
- 12 VDC NG only on 2 1/16" units.
- Chrome bezels available.
- 2 1/16" units have black bezels and red-orange pointers.
- 3 3/8" units have black bezels and white pointers.

PART NUMBER	SIZE	SCALE	HOURMETER	
R8508	2 1/16"	0-4000 rpm	no	
R8509	2 1/16"	0-5000 rpm	no	
R8510	2 1/16"	0-6000 rpm	no	
AIR CORE MOVEMENT				
R85080	3 3/8"	0-4000 rpm	no	
R85085	3 3/8"	0-4000 rpm	yes	
R85090	3 3/8"	0-5000 rpm	no	
R85095	3 3/8"	0-5000 rpm	yes	
R85100	3 3/8"	0-6000 rpm	no	
R85105	3 3/8"	0-6000 rpm	yes	
R85110	3 3/8"	0-8000 rpm	no	
R85115	3 3/8"	0-8000 rpm	yes	

#### **Specialty Devices**

#### R4605 Pulse Distribution Module

#### Made in the USA

This module solves problems caused by attaching multiple instruments to one magnetic speed sender or pulse generator. It accepts your existing speedometer or tachometer signal and will boost and isolate it into five separate outputs. These can be used to drive speedometers, on-board computers, cruise control, taximeters and other devices that use the signal without weak or intermittent signals and interference. 12 VDC NG. For 24 volt order R4605-24VDC.

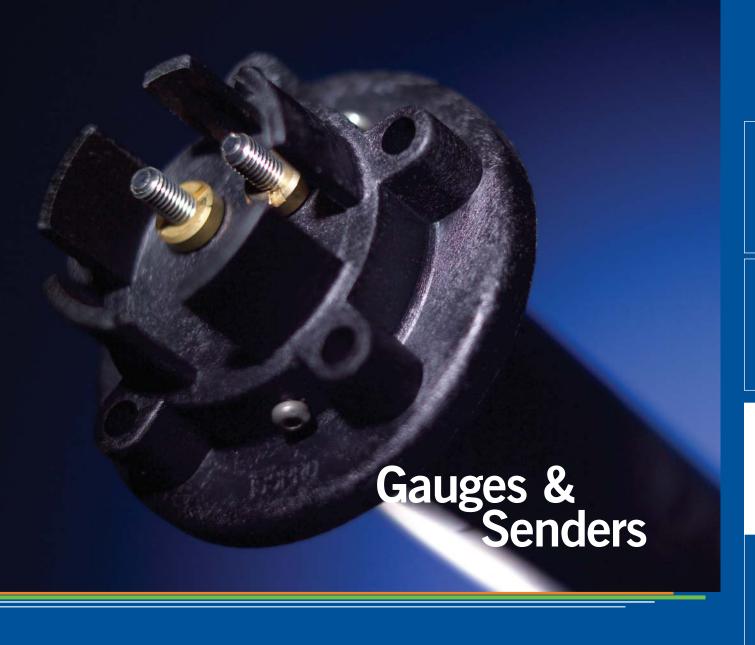
#### R4610 Electronic Ratio Adapter

#### Made in the USA

This device helps obtain speedometer accuracy affected by tire size and rear end ratio changes. Instructions help you calculate percentage of increase or decrease necessary to correct the speedometer accuracy. Dip switches are then set to adjust the signal and calibrate the speedometer. Wiring is 12 VDC NG keyed on/off, ground, input signal from magnetic sensor or signal generator and output signal to the speedometer.

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#### Gauges

All gauges offered in this section have the following standard features:

- Glass filled nylon case resists corrosion and vibration.
- Water resistant lenses are glass, not plastic, so they are scratch resistant.
- 12 VDC NG operation. Consult factory for 24 VDC NG applications.
- White pointer is standard except on english/metric gauges.
- English/metric gauges have red-orange pointers and dual scales.
- Consult factory for positive ground applications.

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#### 2 1/16" Mechanical Gauges

Mechanical gauges sense pressure or temperature through tubing that transmits the pressure, vacuum or temperature to the gauge. Electrical power is required for operation of night lighting only. Senders are not needed for mechanical gauges. All mechanical gauges have 270° sweep.

#### Mechanical Oil Pressure

Requires pressure tubing kit for installation. For details, see page 39 of this catalog.

BLACK BEZEL	CHROME BEZEL	SCALE
R8600	R8700	5-80 psi
R8601	R8701	5-100 psi
R8602	R8702	2-50 psi
S0*	R8712 <sup>1</sup>	10-200 psi
R9000 (E/M)	R9700 (E/M)	5-80 psi/ 35-550 kPa
R9001 (E/M)	R9701 (E/M)	5-100 psi/ 35-700 kPa
R9002 (E/M)	SO*	2-50 psi/ 35-345 kPa

#### Mechanical Drive Oil Pressure Gauges

BLACK BEZEL	CHROME BEZEL	SCALE
R8608 <sup>1</sup>	R8708 <sup>1</sup>	25-400 psi
S0* <sup>1</sup>	R8717 <sup>1</sup>	20-300 psi
R9008 (E/M) <sup>1</sup>	R9708 (E/M) <sup>1</sup>	25-400 psi/ 170-3000 kPa

<sup>\*</sup> Special order item. Call for price and availability. <sup>1</sup> Requires braided stainless steel hose.

#### Mechanical Air Pressure

All dual air pressure gauges have metal cases and two pointers; top pointer is white, bottom pointer is red-orange.

BLACK BEZEL	CHROME BEZEL	SCALE
R8605	R8705	10-150 psi
R9005 (E/M)	R9705 (E/M)	10-150 psi/ 100-1050 kPa

#### Mechanical Dual Air Pressure Gauges

BLACK BEZEL	CHROME BEZEL	SCALE
R8606	R8706	0-150 psi
R9006 (E/M)	SO*	0-150 psi/ 0-1050 kPa

<sup>\*</sup>Special order item. Call ISSPRO for price and availability.

#### Mechanical Axle Load Gauges

CHROME BEZEL	SCALE	
R8820	5,000-55,000 lbs	
R8821	7,500-45,000 lbs	

# Mechanical Fuel Pressure Gauges

Braided stainless steel hose recommended. Isolator or snubber is recommended on all applications.

BLACK BEZEL	CHROME BEZEL	SCALE
R8607	R8707	0-100 psi
S0*	R8709	2-30 psi
S0*	R8714	10-200 psi

<sup>\*</sup> Special order item. Call ISSPRO, INC. for price and availability.

#### Mechanical Manifold Pressure Gauges

Requires pressure tubing kit for installation. For details, see page 39 in this catalog.

BLACK BEZEL	CHROME BEZEL	SCALE
R8610	R8710	2-30 psi
R8610R*	R8710R*	2-30 psi
R8611	R8711	1-15 psi
R8611R*	R8711R*	1-15 psi
R9010 (E/M)	R9710 (E/M)	2-30 psi / 13-207 kPa

<sup>\*</sup> These units have red-orange pointer.

#### Mechanical Turbo Pressure Gauges

Requires pressure tubing kit for installation. For details, see page 39 in this catalog.

BLACK BEZEL	CHROME BEZEL	SCALE
R8603	R8703	2-50 psi
R8603R*	S0**	2-50 psi

<sup>\*</sup> These units have red-orange pointer. \*\* Special order item. Call ISSPRO, INC. for price and availability.

#### Mechanical Vacuum Gauges

R7111 tubing kit is included with these units.

BLACK BEZEL	CHROME BEZEL	SCALE
R8675	R8775	2-30 inHg
R9075 (E/M)	R9775 (E/M)	2-30 inHg / 50-760 mmHg
R8675R*	S0**	2-30 inHg

<sup>\*</sup> These units have red-orange pointer. \*\* Special order item. Call ISSPRO, INC. for price and availability.

#### Mechanical Vacuum/Turbo Boost Gauges

Requires R7110 type pressure tubing kit for installation. For details, see page 39 of this catalog.

BLACK BEZEL	CHROME BEZEL	SCALE
R8870	R8871	0-30 inHg - 0-15 psi

#### Mechanical Air Cleaner Restriction Gauges

Requires R7110 type pressure tubing kit for installation. For details, see page 39 of this catalog.

CHROME BEZEL	SCALE
R8770R	0-40 in H <sup>2</sup> O

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# Mechanical Water Temperature Gauges

BLACK BEZEL	CHROME BEZEL	SCALE	CAPILLARY
R8630	R8730	100-265°F	72"
R8631	R8731	100-265°F	144"
R8632	R8732	100-265°F	96"
R8633	R8733	100-265°F	120"
R8634	R8734	100-265°F	48"
SO*	R8737	100-265°F	18'
SO*	R8738	100-265°F	24'
SO*	R8739	100-265°F	30'
R8642	R8742	100-265°F	60"
R9030 (E/M)	R9730 (E/M)	100-265°F / 40-130°C	72"
R9031 (E/M)	R9731 (E/M)	100-265°F / 40-130°C	144"
R9032 (E/M)	R9732 (E/M)	100-265°F / 40-130°C	96"
R9033 (E/M)	R9733 (E/M)	100-265°F / 40-130°C	120"
R9034 (E/M)	R9734 (E/M)	100-265°F / 40-130°C	48"
R9037 (E/M)	SO* (E/M)	100-265°F / 40-130°C	216"
R9042 (E/M)	R9742 (E/M)	100-265°F / 40-130°C	60"

<sup>\*</sup> Special order item. Call ISSPRO, INC. for price and availability.

#### Mechanical Oil Temperature Gauges

BLACK BEZEL	CHROME BEZEL	SCALE	CAPILLARY
R8635	R8735	140-325°F	72"
R8636	R8736	140-325°F	144"
R9035 (E/M)	R9735 (E/M)	140-325°F / 60-160°C	72"
R9036 (E/M)	R9736 (E/M)	140-325°F / 60-160°C	144"

#### Mechanical Gauge Panels

Our most popular 2 1/16" gauges are available in pre-assembled three gauge panels. These include a color-coded voltmeter, mechanical water temperature gauge and mechanical oil pressure gauge with a six foot tubing kit and a mounting bracket.

#### Specifications:

- Oil pressure 5-80 psi, 270° sweep.
- Voltmeter 12 VDC, 90° sweep, 10-16 VDC scale.
- Water temperature 100-265°F, 270° sweep, 72" capillary.

BLACK BEZEL	CHROME BEZEL	
R8680	R8780	
R9080 (E/M)	R9780 (E/M)	









# 2 1/16" Electrical Gauges

Electrical gauges are designed with a silicone dampened air core movement. All electrical gauges have the same case, mounting dimensions and a 90° sweep.

Ordering information:

- These gauges require a sender, the senders must match the gauge type code and range. Ammeters and voltmeters do not require a sender.
- Also required for an application is wiring and ring terminals.
- For 24 VDC NG and 36 VDC NG systems, a voltage reducer must be used if you do not have a 12 volt system, with the exceptions of ammeters and voltmeters. Voltage reducers are listed in the Specialty Products & Accessories section of this catalog, see page 32.
- R9100 series gauges are compatible with VDO senders.

#### **Electrical Oil Pressure Gauges**

For sender information, see page 26.

BLACK BEZEL	CHROME BEZEL	SCALE	SENDER TYPE
R8620	R8720	0-80 psi	PA
R9120* (E/M)	SO**	0-80 psi/ 0-5 Bar	PF
R9120-24VDC* (E/M)	SO**	0-80 psi/ 0-5 Bar	PF
R9020 (E/M)	R9720 (E/M)	0-80 psi/ 0-550 kPA	PA
R8621	R8721	0-100 psi	РВ
R9021 (E/M)	R9721 (E/M)	0-100 psi/ 0-700 kPA	РВ
R9021-24VDC (E/M)	S0**	0-100 psi/ 0-700 kPA	РВ
R9029 (E/M)	R9729 (E/M)	0-150 psi/ 0-1030 kPA	PD
R9123* (E/M)	SO**	0-150 psi/ 0-10 Bar	PG
R9123-24VDC* (E/M)	SO**	0-150 psi/ 0-10 Bar	PG
R9125* (E/M) Trans oil psi	S0**	0-350 psi/ 0-25 Bar	PH
R9125-24VDC* (E/M)	S0**	0-350 psi/ 0-25 Bar	PH

<sup>\*</sup> These units are compatible with VDO models. \*\* Special order item. Call ISSPRO, INC. for price and availability.

#### Electrical Air & Fuel Pressure Gauges

For sender information, see page 26.

BLACK BEZEL	CHROME BEZEL	TYPE	PSI	SENDER TYPE
R8623	R8723	Air pressure	0-150 psi	PD
R8624	R8724	Fuel pressure	0-100 psi	Not Available
R9023 (E/M)	R9723 (E/M)	Air pressure	0-150 psi/ 0-1030 kPa	PD









R8916 R8917-03

R89825

#### **Pressure Senders**

ISSPRO, INC. pressure senders are designed to work best with our electrical gauges. They also work with many gauges made by competitors. Call ISSPRO, INC. for interchange information. When installing a pressure gauge or sender, we recommend both components be made by ISSPRO, INC. to insure the most accurate readings.

Three kinds of pressure senders are available:

- The standard sender has one terminal and is designed to drive one gauge. The ground connection is made through the body of the sender.
- -02 senders are for applications with two separate gauges. Gauges must be the same type code. One connection should be wired to each gauge, body is ground. This sender is commonly called a dual station.
- -03 senders are isolated ground senders. It has a sender terminal to the gauge and a second terminal for a ground connection.

To order, select the kind of sender that fits your application, then match the type code and range of the sender with the type code and range of the gauge. Senders have 1/8" NPTF.

PART NUMBER	TYPE CODE	RANGE	TERMINALS
R8916	PA	0-80 psi	1 stud
R8916-02	PA	0-80 psi	2 stud dual station
R8916-03	PA	0-80 psi	2 stud with ground
R8917	PB	0-100 psi	1 stud
R8917-02	PB	0-100 psi	2 stud dual station
R8917-03	PB	0-100 psi	2 stud with ground
R8919	PD	0-150 psi	1 stud
R89805*	PF	0-80 psi / 5 bar	1 stud
R89810*	PG	0-150 psi / 10 bar	1 stud
R89825*	PH	0-350 psi / 25 bar	2 stud

<sup>\*</sup> R89805, R89810 and R89825 are VDO compatible.

#### **Ultimate Pressure Senders**

These senders have increased reliability and accuracy designed into them. A ceramic resistor card is used instead of a wound wire resistor card. Movement across the resistor card is straight and pivot and hinge points have been eliminated. This provides extreme reliability for the toughest applications. Various combinations of connections, ranges and threads are possible. 1/8" NPTF thread on all ultimate pressure senders. Not warranted on fuel pressure applications.

PART NUMBER	TYPE CODE	RANGE	TERMINALS	RESPONSE	
R9279A	PA	0-80 psi	1 stud	240-33 ohm	
R9279B	PB	0-100 psi	1 stud	240-33 ohm	
R9279C	PD	0-150 psi	1 stud	240-33 ohm	









R8962

#### **Electrical Temperature Gauges**

BLACK BEZEL	CHROME BEZEL	SCALE	GAUGE TYPE	SENDER TYPE	POINTER COLOR
R8650	R8750	100-240°F	Water	TA	white tip
R8654	R8754	140-320°F	Oil	TB	white tip
R8654R	SO**	140-320°F	Oil	TB	red-orange tip
R8655R	S0**	140-320°F	Transmission	TB	red-orange tip
R8658	R8758	100-280°F	Temperature	TD	white tip
R9050 (E/M)	R9750 (E/M)	100-240°F / 40-115°C	Water	TA	red-orange tip
R9050-24VDC (E/M)	S0**	100-240°F / 40-115°C	Water	TA	red-orange tip
R9054 (E/M)	R9754 (E/M)	140-320°F / 60-160°C	Oil	TB	red-orange tip
R9054-24VDC (E/M)	S0**	140-320°F / 60-160°C	Oil	TB	red-orange tip
R9055 (E/M)	R9755 (E/M)	140-320°F / 60-160°C	Transmission	TB	red-orange tip
R9055-24VDC (E/M)	S0**	140-320°F / 60-160°C	Transmission	TB	red-orange tip
R9058 (E/M)	R9758 (E/M)	100-280°F / 40-140°C	Temperature	TD	red-orange tip
R9058-24VDC (E/M)	S0**	100-280°F / 40-140°C	Temperature	TD	red-orange tip
R9150* (E/M)	S0**	100-250°F / 40-120°C	Water	TF	red-orange tip
R9150-24VDC* (E/M)	S0**	100-250°F / 40-120°C	Water	TF	red-orange tip
R9154* (E/M)	S0**	120-300°F / 50-150°C	Oil	TG	red-orange tip
R9154-24VDC* (E/M)	S0**	120-300°F / 50-150°C	Oil	TG	red-orange tip

<sup>\*</sup> These units are compatible with VDO products. \*\* Special order item. Call ISSPRO, INC. for price and availability.

#### Temperature Senders

Two termination types of temperature senders are available, standard 10-32 thread and isolated ground (-03). For an explanation, see pressure senders section. We recommend ISSPRO, INC. temperature senders be used with ISSPRO, INC. gauges to insure accuracy. Connections: Standard senders have one terminal for the gauge and grounding is through the body of sender. -03 senders have one terminal for the gauge and one for the ground connection. For interchange information, contact factory.

To order, determine the kind of sender needed and match type code and range with the gauge. Then, select the correct mounting thread for your application.

100-240°F RANGE, TA CODE					
PART NUMBER	THREAD	TERMINALS			
R8920	1/2" NPTF	1 stud			
R8920-03	1/2" NPTF	2 blades			
R8921	3/8" NPTF	1 stud			
R8922	1/4" NPTF	1 stud			
R8923	1/8" NPTF	1 stud			
R8923-03	1/8" NPTF	2 blades			
R8953	M14 x 1.5	1 stud			
R8954	M16 x 1.5	1 stud			
R8955	M18 x 1.5	1 stud			

140-320°F RANGE PART NUMBER	, TB CODE THREAD	TERMINALS
R8956	M14 x 1.5	1 stud
R8957	M16 x 1.5	1 stud
R8958	M18 x 1.5	1 stud
R8959	1/8" NPTF	1 stud
R8959-03	1/8" NPTF	2 blades
R8960	1/4" NPTF	1 stud
R8961	3/8" NPTF	1 stud
R8962	1/2" NPTF	1 stud
R8963	1/2" X 20 UNF	1 stud









CODE	TEMPERATURE	THREAD
TF	250°F/ 120°C	1/2" NPTF
TG	300°F/ 150°C	1/2" NPTF
	TF	TF 250°F/ 120°C

TEMPERATURE SENDER KITS		1/8" NPTF IS STANDARD	
PART NUMBER	CODE	RANGE	TERMINALS
R8992	TD	100-280°F	1 stud
R8993	TA	100-240°F	1 stud
R8994	TE	100-230°F	1 stud
R8995	TB	140-320°F	1 stud

Kits include 1/4", 3/8" and 1/2" adapter bushings.

# Fuel Level Gauges

BLACK BEZEL	CHROME BEZEL	SCALE	ТҮРЕ
R8690	R8790	Empty, 1/4, 1/2, 3/4, Full	240-33 ohm
R8690P	R8790P	Empty, 1/4, 1/2, 3/4, Full	240-33 ohm, positive ground
R9090 (E/M)	R9790 (E/M)	Empty, 1/4, 1/2, 3/4, Full	240-33 ohm
R9090-24VDC (E/M)	S0**	Empty, 1/4, 1/2, 3/4, Full	240-33 ohm
R9190* (E/M)	S0**	Empty, 1/4, 1/2, 3/4, Full	10-180 ohm
R9190-24VDC* (E/M)	S0**	Empty, 1/4, 1/2, 3/4, Full	10-180 ohm
R9290		Empty, 1/4, 1/2, 3/4, Full	0-90 ohm
R9390		Empty, 1/4, 1/2, 3/4, Full	78-10 ohm

<sup>\*</sup> These units are compatible with VDO models. \*\* Special order item. Call ISSPRO, INC. for price and availability.

#### RA9200 Series Ultimate Fuel Level Senders

ISSPRO, INC.'s RA9200 series is specifically calibrated for the cylindrically shaped tanks most commonly used on Class 8 trucks. These senders are ordered by the diameter of the fuel tank. To order, determine the diameter of the tank and order the appropriate part number.

PART NUMBER	FUEL TANK SIZE
RA9220-STW	Tank outside diameter 20"
RA9222-STW	Tank outside diameter 22"
RA9223-STW	Tank outside diameter 23"
RA9224-STW	Tank outside diameter 24"
RA9225-STW	Tank outside diameter 25"
RA9226-STW	Tank outside diameter 26"
RA9227-STW	Tank outside diameter 27"
RA9228-STW	Tank outside diameter 28"
RA9229-STW	Tank outside diameter 29"







#### TECHNICAL TIPS ..

Tube style senders are extremely durable and ideal for rugged applications. when ordering a tube style sender it is important to know tank depth, resistance curve and tank shape. Tank shape falls into two categories: volumetric (round and saddle and non-volumetric (rectangular and square). Please contact factory for custom applications.

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#### RA9500 Series Ultimate Fuel Level Senders

ISSPRO, INC.'s ultimate fuel level sender is the best value sensor on the market today. As one of the most widely used component parts for major OEMs, it is built tough to provide reliable readings. The RA9500 series is available for most fuel tank sizes and in the resistance curves listed below. Other resistance curves, wiring harnesses and connectors are available by custom order. Consult factory at 800-888-8065. Not all part numbers are kept in stock, please call for lead times.

- Senders must be installed within ± 5° from vertical for best results.
- End cap keeps tube free of debris.
- Fluids measured: gas/diesel/biodiesel/alcohol(ethanol)/hydraulic non potable water
- Temperature range: -90°C to 105°C
- Standard SAE five bolt hole mounting.
- Made in the USA.

Ordering information: Find appropriate length of tube or depth of tank. Replace XXX suffix with resistance curve desired. For low profile cap with 8" wire leads, add LP to suffix after XXX specification.

Resistance curves available\* (Empty – Full):

RA95XX-IS 240 – 33 ohm

RA95XX-AC 0 – 90 ohm

RA95XX-FORD 78 – 10 ohm

RA95XX-EURO\*\* 10 – 180 ohm

RA95XX-OAC 0-30 ohm

\* Move curves available. \*\* VDO compatible.

Stock items and pricing.

-Non-stock specialty item. Call for lead time and pricing.

	•		
PART NUMBER-XXX	TUBE LENGTH	TANK DEPTH	
RA9506-XXX	6"	6 1/2 - 7"	
RA9507-XXX	7"	7 1/2 - 8"	
RA9508-XXX	8"	8 1/2 - 9"	
RA9509-XXX	9"	9 1/2 - 10"	
RA9510-XXX	10"	10 1/2 - 11"	
RA9511-XXX	11"	11 1/2 - 12"	
RA9512-XXX	12"	12 1/2 - 13"	
RA9513-XXX	13"	13 1/2 - 14"	
RA9514-XXX	14"	14 1/2 - 15"	
RA9515-XXX	15"	15 1/2 - 16"	
RA9516-XXX	16"	16 1/2 - 17"	
RA9517-XXX	17"	17 1/2 - 18"	
RA9518-XXX	18"	18 1/2 - 19"	
RA9519-XXX	19"	19 1/2 - 20"	







# RA9500 Series Ultimate Fuel Level Senders - continued

PART NUMBER-XXX	TUBE LENGTH	TANK DEPTH
RA9520-XXX	20"	20 1/2 - 21"
RA9521-XXX	21"	21 1/2 - 22"
RA9522-XXX	22"	22 1/2 - 23"
RA9523-XXX	23"	23 1/2 - 24"
RA9524-XXX	24"	24 1/2 - 25"
RA9525-XXX	25"	25 1/2 - 26"
RA9526-XXX	26"	26 1/2 - 27"
RA9527-XXX	27"	27 1/2 - 28"
RA9528-XXX	28"	28 1/2 - 29"
RA9529-XXX	29"	29 1/2 - 30"
RA9530-XXX	30"	30 1/2 - 31"
RA9531-XXX	31"	31 1/2 - 32"
RA9532-XXX	32"	32 1/2 - 33"
RA9533-XXX	33"	33 1/2 - 34"
RA9534-XXX	34"	34 1/2 - 35"
RA9535-XXX	35"	35 1/2 - 36"
RA9536-XXX	36"	36 1/2 - 37"

#### Float Arm Fuel Level Senders

Most senders are adjustable for tanks with 6 - 27 inch depth. They fit right or left hand swing applications. Contact your local distributor for interchange information.

PART NUMBER	RANGE (E-F)	USE
R8925*	240-33 ohm	with aftermarket. gauges (ISSPRO, STW most aftermarket)
R8926	0-90 ohm	with AC type gauges (GM)
R8927	78-10 ohm	with Ford or Chrysler
R8928	0-30 ohm	OAC match (Old GM)
R8929		replacement float for R8900 Series float arm senders
R89890**	10-180 ohm	VDO match response

 $<sup>^{\</sup>ast}$  Can be used with some other brands of gauges.  $^{\ast\ast}$  Adjustable for 6-23 inch tank depth.

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#### Voltmeters

All voltmeters have color coded ranges.

R8660 R8760 12VDC / 10-16 VDC R8661 R8761 24VDC / 20-32 VDC R8662* R8762* 32VDC / 26-42 VDC
10.00
R8662* R8762* 32VDC / 26-42 VDC
R8663* R8763* 36VDC / 28-47 VDC
R9060 (E/M) R9760 (E/M) 12VDC / 10-16 VDC
R9061 (E/M) R9761 (E/M) 24VDC / 20-32 VDC

 $<sup>^{\</sup>star}\,$  These units supplied without internal lighting.

#### **Ammeters**

All ammeters shown below are internally shunted.

BLACK BEZEL	CHROME BEZEL	SCALE
R8668	R8768	30-0-30 amps
R9068 (E/M)	R9768 (E/M)	30-0-30 amps
R8665	R8765	40-0-40 amps
R8666	R8766	60-0-60 amps
R9066 (E/M)	R9766 (E/M)	60-0-60 amps
R8667	R8767	100-0-100 amps
R9067 (E/M)	R9767 (E/M)	100-0-100 amps

Specialty Products & Accessories

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R4022







R4290

#### **Engine Shutdowns**

Made in the USA.

**R4020** Engine Shutdown/Protection Kit for use in mobile applications (trucking, automotive). Solid state engine protection module with 20A(NO) or 10A(NC) contacts to handle heavy switch loads. The kit includes a 12 VDC NG R4022 shutdown module (15 second delay for engine starting and 30 second delay before shutdown after alarm), low coolant probe, low oil pressure switch (7-9 PSI), high engine temperature switch (225°F), warning light and buzzer. Contact ISSPRO, INC. for isolated coolant level probe. For 24 volt order R4020-24VDC.

**R4021** Engine Shutdown/Protection Kit for stationary engines

Solid state engine protection module with 20A(NO) or 10A(NC) contacts to handle heavy switch loads. The kit includes a 12 VDC NG R4023 shutdown module (30 second delay to allow engine starting, then immediate shutdown with alarm), low coolant probe, low oil pressure switch (7-9 PSI), high engine temperature switch (225°F), warning light and buzzer. Specifications are the same as R4020 shutdown kit but for use in stationary engine applications (immediate shutdown after alarm). For 24 volt order R4021-24VDC.

R4022 Engine Shutdown/Protection Control Module only. (for R4020 kit)

**R4023\*** Engine Shutdown/Protection Control Module for use in stationary engine applications (generator, pump). (for R4021 kit)

\* Consult ISSPRO, INC. for optional delay setting.

#### Turbo Temp Monitors

Made in the USA.

**R4130** This monitor can help eliminate early turbocharger failure in diesel applications. When engine ignition is turned off, the R4130 idles until a safe exhaust temperature is reached, then automatically shuts down the engine. By shutting down in a cool condition, deposits are reduced and turbo life is increased. Standard shutdown is 300°F. For installation, the existing pyrometer system can be used or order lead wire R660 and a type K thermocouple. 12 VDC NG. For 24 volt order R4130-24VDC.

R4131 Gas engine version of R4130. Standard shutdown is 600°F. Available in 12 VDC NG only.







#### Low Water Alarms

Made in the USA.

#### R4290 Low Water Alarm Kit

Solid state low water alarm uses AC to detect low coolant conditions. This eliminates potential plating problems. High current relay 20A (NO), 10A (NC) relay will handle most shutdown or alarm circuits. 12 VDC NG version includes probe, warning light and buzzer. Plastic radiators require two probes. Contact ISSPRO, INC. for isolated coolant level probe. For 24 volt order R4290-24VDC.

R4291 Low Water Alarm Module only. (for R4290 kit)

#### **Electronic Switches**

Made in the USA.

#### R4901 Single Level Speed Switch

Speed switch will trip at preset rpm to control engine function or other control circuitry. Relay outputs can switch external circuit on or off at trip point. 12 VDC NG. Specify when ordering: sensor or ignition input, latched or autoreset relay, desired switch point.

#### **R4901A** Single Level Speed Switch – Adjustable

Single level speed switch is field adjustable and designed to be used as an over rev alarm or road speed alarm. When setting is exceeded, an audio and visual warning device or shutdown is activated. Accepts signals from Isspro, Inc. magnetic pickup or signal generator. Set point is adjustable from 100 to 5,000 hertz. 12 VDC NG. Unlatched (auto-reset) design only. When the set point is exceeded, the relay will remain tripped until the signal falls below the set point when it will reset. Not compatible with ignition inputs. Use R4901, factory preset to your specs, for latched applications. For 24 volt order R4901A-24VDC.

#### R4902 Dual Level Speed Switch

Same as R4901 except with dual switch point, one upper and one lower. Specify two set points when ordering, as well as 12 or 24 VDC NG, sensor or ignition input, latched or auto-reset relay. For 24 volt order R4902-24VDC.

#### R6326 Two Level Temperature Switch

Designed to give a two step warning when predetermined exhaust temperatures are reached. When step one is reached, a warning light will come on, when step two is reached, additional warnings or controls will activate. 12 VDC NG. Specify type J or K thermocouple. Alarm points must be specified for factory setting. For 24 volt order R6326-24VDC.



# Pressure & Temperature Switches

Rugged and reliable for indicator light, relays, hourmeters, etc. All pressure switches have a six amp capacity except R364K and R364L which have a three amp capacity. All temperature switches have a one amp capacity. Switches can be supplied for custom applications, contact factory for details at 800-888-8065.

PRESSURE SWITCHES-ALL HAVE 1/8" NPTF THREAD				
PART NUMBER	SETTING	TYPE	TERMINALS	
R4006-4	4 psi	N/O, HD	2 1/4" blades	
R4007-4	4 psi	N/C, HD	2 1/4" blades	
R4012-4	4 psi	N/C & O, HD	3 1/4" blades	
R7504	4 psi	N/O	1 stud	
R364L	6 psi	N/C	1 stud	
R4009-8	8 psi	N/C, HD	2 1/4" blades	
R7508	8 psi	N/C	1 stud	
R364K	15 psi	N/C	1 stud	
R4008-15	15 psi	N/O, HD	2 1/4" blades	
R4009-15	15 psi	N/C, HD	2 1/4" blades	
R4010-60	60 psi	N/O, HD	2 1/4" blades	
R4011-60	60 psi	N/C, HD	2 1/4" blades	
TEMPERATURE SWITCHES-	NORMALLY OPEN			
PART NUMBER	SETTING	TYPE	TERMINALS	
R363D	200°F	1/4" NPTF	1 stud	
R363D-03	200°F	1/4" NPTF	2 blades	
R363E	200°F	3/8" NPTF	1 stud	
R363F	200°F	1/2" NPTF	1 stud	
R363B	212°F	1/2" NPTF	1 stud	
R363AM	225°F	1/4" NPTF	1 stud	
R363G	225°F	1/2" NPTF	1 stud	
R363A	250°F	1/4" NPTF	1 stud	
R363W	250°F	1/2" NPTF	1 stud	









#### Hourmeters

ISSPRO, INC.'s standard range is 10-80 VDC. 4-40 VDC are available.

- The R8865 digital hourmeter is designed with solid state memory that retains its reading when voltage is removed.
- Standard 2 1/16" mounting diameter except the R8864HV, which is rectangular.

PART NUMBER	VOLTS	BEZEL	STYLE	COMMENTS
R8861		black	snap on clamp	for 6-8 V applications
R8861HV	10-80 VDC	black	snap on clamp	
R8862		stainless	snap on clamp	for 6-8 V applications
R8862HV	10-80 VDC	stainless	snap on clamp	
R8863		black	SAE 3 hole	for 6-8 V applications
R8863HV	10-80 VDC	black	SAE 3 hole	
R8864		black	rectangular mini-meter	for 6-8 V applications
R8864HV	10-80 VDC	black	rectangular mini-meter	
R8865	10-50 VDC	black	digital display with clamp	
R8866	12-48 bezel	black	""T"" style 2 hole	

## Black Ice Indicator Gauge

Designed to indicate ice-forming temperatures outside the vehicle. Red LED indicates temperatures at or below freezing, warning of potentially dangerous road conditions. Standard with pedestal mounting. Includes internal lighting, sensor for mounting outside vehicle and all necessary mounting hardware. For use in 12 VDC NG systems. Operating range: -20F° to 100°F.

PART NUMBER	SPECS	
R8652	Black ice indicator	
R8652-LAMP	Replacement lamp for R8652	
R8652-S0	Replacement sensor for R8652	

## Heavy Duty Full Sweep Voltmeters & Ammeters

These meters are used in applications where precision readings are required.

- Red-orange pointer, 250° sweep and black bezel is standard.
- 2 1/16 round mounting hole size.

PARI NUMBER TYPE CUSTOMIZE	
R8802 Voltmeter, 7-18 VDC scale	TH
R8808 Ammeter/ shunt 100-0-100 scale YOUR OWN LOG	)
R8810 Ammeter/ shunt 150-0-150 scale	
R8812 Ammeter/ shunt 200-0-200 scale CALL THE FACTOR	
R8814 Ammeter/ shunt 300-0-300 scale FOR DETAILS.	
(800) 888-80	65



## Gauge Mounting Accessories

MOUNTING BRACKETS					
BLACK	CHROME	NUMBER OF GAUGES	GAUGE DIAMETER	DESCRIPTION	
R7610	R7611	1	2 1/16"		
R7620	R7621	2	2 1/16"		
R7630	R7631	3	2 1/16"		
R7640	R7641	4	2 1/16"		
R7608	N/A	1	3"		
R7680	R7681	1	3 3/8"		
N/A	R7618	1	3"	Zinc plated, swivel mounting bracket	
MOUNTING CUPS					
BLACK	CHROME	SIZE	FINISH	DESCRIPTION	
R7602	R7602C	2 1/16"	black/chrome	All 2 1/16" gauges	
R7602-0S	N/A	2 1/16"	plastic case	Mounting cup 2 1/16" gauges	
R7603	R7603C	3"	black/chrome	Pyrometer only	
R7601B	R7601C	3 3/8"	black/chrome	Tachs and speedometers	
R7605B	R7605C	5"	black/chrome	All 5" gauges	
R7615	N/A	5 1/2" - 5"	black	Adapter ring	

## Gauge Lighting

PART NUMBER	TYPE OF ASSEMBLY	WIRES	BULB NUMBERS	MOUNTING DIAMETER
R7045	Gauge light	2 wires	12V - GE53	5/8" short depth
			24V - GE356	
R7092	Gauge light	1 wire	12V - GE53	9/16" & 5/8"
		ground to gauge	24V - GE356	universal
			32V - GE1822	most gauges
			36V - GE1828	
R7093	Gauge light	2 wires	12V - GE161	9/16" & 5/8"
			24V - GE656	universal
				most gauges
R7094	Wedge base light	n/a	12V - GE161	twist in assembly
			24V - GE656	
R7095	Gauge light	1 wire	14V - GE1893	9/16" & 5/8"









R7936

051

## Relays, Buzzers & Alarms

PART NUMBER	TYPE	VOLTS DC NG	REMARKS
R7021	Relay	12	20 amp with connector
R7060	Buzzer	12	
R7064	Buzzer	12 or 24	steady tone
R7066	Buzzer	12 or 24	pulse tone
R7074	Alarm	12 or 24	103 DBA
R7085	Buzzer & light	12	

## Adapter Bushing Kit

For electric pressure senders and some temperature senders.

PART NUMBER	ТҮРЕ		
R7969	Metric adapter fitting kit		
	M10 x 1.0, M12 x 1.5, M14 x 1.5, M16 x 1.5 and M18 x 1.5 to $1/8$ " NPTF adapters.		
	(R7960, R7962, R7963, R7964, R7965 respectively)		
R7966	Metric adapter fitting		
	M14 x 1.25 to 1/8" NPTF adapter. Not included in kit.		

## Water Level Probes

PART NUMBER	ТҮРЕ
R1220L	Sensor, 2.36" extension beyond threads
R1220S	Sensor, 1.36" extension beyond threads
R1220-IS0	Sensor, isolated ground

## Warning Lights

PART NUMBER	COLOR/MARKING
R7051	Red/ no marking
R7056	Red/ marked LOW WTR

## Voltage Reducers/Gauge Voltage Dropping Resistors

Voltage reducers are not designed for light bulb applications.

PART NUMBER	USE
R7934	For 24 - 12 VDC NG gauges. Use on R8600, R8700, R9000 and R9700 series, one for each gauge.
R7936	For 32 - 12 VDC NG gauges. Use on R8600, R8700, R9000 and R9700 series, one for each gauge.



## **Tubing Kits**

PART NUMBER	ТҮРЕ	LENGTH
R7110	Oil, manifold or turbo pressure	6 feet
R7110-10	Oil, manifold or turbo pressure	10 feet
R7111	Vacuum	6 feet
R7172	Oil, manifold or turbo pressure	16 feet

Custom length kits are also available.

## **Adapter Nuts**

For mechanical temperature gauges. Adapts capillary tube to male thread size shown.

PART NUMBER	LENGTH
R7850	1/2" NPTF
R7851	3/8" NPTF
R7852	1/4" NPTF
R7853	5/8"-18 UNF

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#### **EV Products**

EV instruments offered in this catalog have the following standard features:

- Black dished face dial, white backlit numerals, illuminated white pointer and black brass low-profile bezel on Automotive series.
- White dished face dial, blue backlit numerals, illuminated blue pointer and chromed brass low-profile bezel on Marine series.
- Convex scratch-resistant glass lenses. Exception: domed polycarbonate crystal lenses on trip odometer speedometers and memory and internal shift lite tachometers.
- Antifog solution applied to inside of glass lenses.
- All instruments frontally sealed.
- All outer plastic parts are UV stabilized.
- Glass filled white polyester case resists corrosion and vibration and augments lighting, designed for superior night time viewing.
- The mechanical pressure and temperature gauges, as well as the pitot speedometer, feature a phosphor bronze bourdon tube linked to a gear and pinion arrangement for accurate indication.
- Most gauges are for 12 VDC NG operation. Some 24 VDC NG versions also offered.

#### **Speedometers**

ISSPRO, INC. is one of the largest suppliers of ruggedly reliable and easily replaceable speedometers to heavy duty OEMs and now brings that same expertise to the automotive and marine markets. High quality mechanical and microprocessor-based programmable speedometers, sensors and generators are offered.

#### Mechanical Speedometers

BLACK/WHITE	WHITE/BLUE	SIZE	SCALE	ODOMETER	BULBS/GAUGE		
R5441	N/A	3 3/8"	120 mph	yes + trip	3		
SAE connections 5/8"-18 cable nut with .104" square hole.							

#### Pitot Type Speedo

BLACK/WHITE	WHITE/BLUE	SIZE	SCALE	ODOMETER	BULBS/GAUGE
N/A	R6440*	3 3/8"	60 mph	no	2
N/A	R6441*	3 3/8"	120 mph	no	2

<sup>\*</sup> Pitot tube - for marine use only.

#### Programmable Speedometers

These microprocessor based speedometers are driven electronically by a signal generated from a pulse generator or magnetic pickup. They function over a broad range of applications by using the trip knob in program mode for field programmability. For replacement applications, they will accept signals from most sensors or generators in use. Silicone dampened air core movements provide steady readings. Mounting hardware and lighting kit are included. 12 or 24 VDC NG operation. T-6.5 bulb type.

BLACK/WHITE	WHITE/BLUE	SIZE	SCALE	ODOMETER	BULBS/GAUGE
R5482M	R6482M	3 3/8"	120 mph	yes + LCD trip	2
R5483M	R6483M	3 3/8"	160 mph	yes + LCD trip	2









#### **Tachometers**

ISSPRO, INC.'s tachometers, like its speedometers, are designed to withstand adverse environments. Mechanical, programmable, ignition and diesel tachometers are available.

#### Mechanical Tachometers

These tachometers are cable driven and offer the same features as ISSPRO, INC.'s mechanical speedometers. They are robust and reliable for new installations or replacement applications. Drive ratio is .5:1. Mounting hardware and light kit included. T-5 bulb type.

BLACK/WHITE	WHITE/BLUE	SIZE	SCALE	BULBS/GAUGE	
R5597	R6597-001	3 3/8"	0-3500 rpm	2	

#### **Programmable Tachometers**

These microprocessor based instruments are designed to accept signals from pulse generators, magnetic sensors and alternators. Units feature dip switch programming. Mounting hardware and light kit included. 12 or 24 VDC NG operation. T-6.5 bulb type.

BLACK/WHITE	WHITE/BLUE	SIZE	SCALE	BULBS/GAUGE
R5535M	R6535M	3 3/8"	0-3500 rpm	2

#### **Ignition Tachometers**

These tachometers are designed for most standard ignition systems that have a coil type ignition or tach output connection. Applications are for 4, 6 or 8 cylinder four stroke engines. All units are 12 and 24 VDC NG capable. Mounting hardware and light kit included. Bulb type listed below.

BLACK/WHITE	WHITE/BLUE	SIZE	SCALE	FEATURES	BULB TYPE	BULBS/GAUGE
R5510	R6510	2 1/16"	0-6000 rpm		T-5	2
R55100	R65100	3 3/8"	0-6000 rpm		T-6.5	2
N/A	R65110	3 3/8"	0-8000 rpm		T-6.5	2
R55111	N/A	3 3/8"	0-8000 rpm	internal shift lite	T-6.5	2
R55120	N/A	5"	0-10,000 rpm	recall	T-10	2

#### 2 1/16" Diesel Tachometers

While these tachometers are designed primarily for diesel systems, they will work with any two pulse per rev. sender. All units are 12 and 24 VDC NG capable. Mounting hardware and light kit included. Use sensor kits as shown on page 17 of this catalog. Automotive units in this section have red-orange pointers. T-5 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	BULB TYPE	BULBS/GAUGE	
R5501	R6501	0-3000 rpm	T-5	2	
R5503	R6503	0-4000 rpm	T-5	2	
R5504	R6504	0-5000 rpm	T-5	2	
R5591	R6591	0-6000 rpm	T-5	2	

















## Mechanical Gauges

Mechanical gauges sense pressure or temperature through tubing that transmits the pressure, vacuum or temperature. Electricity required for operation is for night lighting only. Senders are not needed for mechanical gauges. All mechanical gauges have 270° sweep.

### Mechanical Oil Pressure & Drive Oil Pressure Gauges

Requires pressure tubing kit (R7110 or R7110-10) for installation. T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	BULBS/GAUGE	
R5600	R6700	0-80 psi	1	
R5601	R6701	0-100 psi	1	
DRIVE OIL PRESSURE				
R5608*	R6708*	0-400 psi	1	

<sup>\*</sup> Requires braided stainless steel hose.

## Mechanical Air Pressure Single

Requires pressure tubing kit (R7110 or R7110-10) for installation. T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	BULBS/GAUGE	
R5605	R6705	0-150 psi	1	

#### Mechanical Dual Air Pressure

Features two pointers; top pointer is white, bottom pointer is fluorescent orange. Features perimeter lighting. T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	BULBS/GAUGE
R5606	R6706	0-150 psi	1

#### Mechanical Fuel Pressure Gauges

Braided stainless steel tubing required. Gauge must be mounted outside of vehicle for safety. T-10 bulb. Isolator or snubber is recommended on all fuel pressure applications.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	WHITE/RED	SCALE	BULBS/GAUGE	
R5604	R5604R	R6704	R6804R	0-30 psi	1	
R5607	R5607R	R6707	R6807R	0-60 psi	1	







## Mechanical Manifold Pressure Gauges

Requires pressure tubing kit (R7110 or R7110-10) for installation. T-10 bulb type.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	SCALE	BULBS/GAUGE	
R5611	R5611R	R6711	0-15 psi	1	
R5610	R5610R	R6710	0-40 psi	1	

## Mechanical Turbo Boost Gauges

Requires pressure tubing kit (R7110 or R7110-10) for installation. T-10 bulb type.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	WHITE/RED	SCALE	BULBS/GAUGE	
R5613	R5613R	R6713	R6813R	0-30 psi	1	
R5623	R5623R	R6723	R6823R	0-60 psi	1	
R5633	R5633R	R6733*	N/A	0-80 psi	1	
R5643	R5643R	R6743*	N/A	0-100 psi	1	

#### Mechanical Vacuum Gauges

Requires pressure tubing kit (R7111) for installation. T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	BULBS/GAUGE
R5675	R6775	0-30 inHg	1

### Mechanical Vacuum/Turbo Pressure Gauges

Requires pressure tubing kit (R7110 or R7110-10) for installation. T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	BULBS/GAUGE	
R5870	R6871	0-30inHg - 0-25 psi	1	

### Mechanical Water Temperature Gauges

T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	CAPILLARY	BULBS/GAUGE	
R5630	R6730	100-265°F	72"	1	
R5631	R6731	100-265°F	144"	1	
R5632	R6732	100-265°F	96"	1	
R5634	R6734	100-265°F	48"	1	

## Mechanical Oil Temperature Gauges

T-10 bulb type.

BLACK/WHITE	WHITE/BLUE	SCALE	CAPILLARY	BULBS/GAUGE	
R5635	R6735	140-325°F	72"	1	
R5636	R6736	140-325°F	144"	1	

















## Electrical Gauges

Electrical gauges are designed with a silicone dampened air core movement. A coil of wire is wound around a bobbin with a center magnet. When an electrical current is applied to the coil, the gauge pointer moves to the resulting electrical field. Wire, electrical terminals and 12 VDC from the vehicle are required for installation. 270° sweep electrical gauges include amplifier and sender; this matched calibrated set is required for operation.

### **Electrical Air Core Pyrometers**

Provided with signal amplifier. Choose lead wire, thermocouple and accessories in Pyrometers section of this catalog on page 8. T-5 bulb type.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	WHITE/RED	°F SCALE	APPLICATION	BULBS/GAUGE	
R3607	R3607R	R3707	N/A	100-1800°	gas	2	
R3607G	R3607GR	R3707G	R3807GR	100-1500°	diesel	2	
R3607T	R3607TR pre-turbo	N/A	N/A	100-1500°	diesel	2	
R3607VW	R3607VWR post-turbo	N/A	N/A	100-1500°	diesel	2	

## Electrical Oil Pressure Gauges (270° Sweep)

Provided with signal amplifier and sender (matched set). See below. T-5 bulb type. Oil pressure sender is 1/8" NPT.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	SCALE	BULBS/GAUGE	
R5620	N/A	R6720	0-80 psi	2	
R5621	R5621R	R6721	0-100 psi	2	
R5622 (24VDC)	N/A	R6722 (24VDC)	0-100 psi	2	









## **Electrical Fuel Level Gauges**

Use with fuel lever senders listed on page 28 and 29. T-10 bulb type.

BLACK/WHITE	BLACK/RED	SCALE	TYPE	BULBS/GAUGE
R5690	R6790	Empty, 1/4, 1/2, 3/4, Full	240-33 ohm	1
R5691 (24VDC)	R6791 (24VDC)	Empty, 1/4, 1/2, 3/4, Full	240-33 ohm	1

## **Electrical Ammeters**

No sender required. T-10 bulb type.

BLACK/WHITE	BLACK/RED	SCALE	SHUNT	BULBS/GAUGE
R5666	R6766	60-0-60 amps	internal	1

## **Electrical Voltmeters**

No sender required. T-10 bulb type.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	WHITE/RED	SCALE	BULBS/GAUGE
R5660	R5660R	R6760	R6860R	12VDC/ 10-16 VDC	1
R5661	N/A	R6761	N/A	24VDC/ 20-32 VDC	1

## Electrical Temperature Gauges (270° Sweep)

Provided with signal amplifier and sender (matched set). See below. T-5 bulb type. Supplied with 1/8" NPT temperature sender and 1/4, 3/8, 1/2" NPT adapters.

BLACK/WHITE	BLACK/RED	WHITE/BLUE	WHITE/RED	SCALE	GAUGE TYPE	BULBS/GAUGE
R5650	N/A	R6750	N/A	100-240°F	Water	2
R5651 (24VDC)	N/A	R6751 (24VDC)	N/A	100-240°F	Water	2
R5654	R5654R	R6754	N/A	140-320°F	Oil	2
R5655 (24VDC)	N/A	R6755 (24VDC)	N/A	140-320°F	Oil	2
R5656	R5656R	R6756	N/A	140-320°F	Trans oil	2
R5657 (24VDC)	N/A	R6757 (24VDC)	N/A	140-320°F	Trans oil	2
R5658	R5658R	R6758	N/A	100-280°F	Water	2
R5659	R5659R	R6759	R6859R	100-280°F	Trans oil	2
R5659-0	R5659R-0	N/A	N/A	100-280°F	Oil	2

## **ENHANCED VISIBILITY (EV) PRODUCTS**

















## 2 1/16" Hourmeters

BLACK/WHITE	WHITE/BLUE	VOLTS	STYLE
R5661HV	R6762HV	10-80 VDC	Standard gauge mounting

## 2 1/16" Electrical Water Level Gauges

Contact factory for sender information.

BLACK/WHITE	WHITE/BLUE	SCALE	BULBS/GAUGE
R5692	R6792	0, 1/2, 4/4	

#### Bezels

Fold on bezels. Red, white, blue and black are powder coated. For EV gauges only.

COLOR	COLOR	COLOR	SIZE
red R7750	white R7751	blue R7752	2 1/16
black R7753	chrome R7754	brass R7755	2 1/16
red R7762	white R7763	blue R7764	3 3/8"
black R7765	chrome R7766	brass R7767	3 3/8"

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R77011



#### Pillars & Pods PART NUMBER SIZE MAKE/YEAR PILLAR/POD R7700 2 1/16" Ford F series 92-97\* dual pillar R7701 2 1/16" Ford F series 92-97\* triple pillar R7702 2 1/16" Ford F series 98-01 & F-150 97 dual pillar R7703 2 1/16" Ford F series 98-01 & F-150 97 triple pillar R7704 2 1/16" Dodge Ram 94-97 dual pod R7705 2 1/16" Chevy GM full size 88-94 dual pod R77000 Dodge Ram 98-01 & Ram 2500/3500 02 2 1/16" dual pillar R77001 2 1/16" Ford F series 02 & F-150 03 dual pillar R77002 2 1/16" Dodge Ram w/speaker 98-02 & Ram 2500/3500 02 dual pillar R77003 2 1/16" Chevy GM full size 00-04 dual pillar R77004 2 1/16" Chevy GM full size w/ speaker 03-04 dual pillar R77005 2 1/16" Chevy GM full size 00-04 triple pillar R77006 2 1/16" Ford Super Duty 99-04 quadruple pillar R77007 2 1/16" Dodge Ram w/speaker 98-02 triple pillar R77008 2 1/16" Dodge Ram 94-97 triple pillar R77009 2 1/16" Dodge Ram 03-04 dual pillar, It gray R77010 2 1/16" Dodge Ram 98-01 triple pillar R77011 2 1/16" Dodge Ram 03-04 triple pillar, It gray R7706 2 1/16" Ford F series 87-97 dual pod R7707 2 1/16" Ford Super Duty 99-04 triple pillar

Ford Super Duty 99-04

R7708

2 1/16"

CUSTOMIZE

DIAL FACES WITH

YOUR OWN LOGO!

FOR DETAILS.

dual pod



#### Accessories

For mounting cups and brackets, see page 37.

R7799 42" extension cable goes between gauge head and amplifier box on electrical gauges. This accessory makes overhead installations easier.

R7797 Fuel pressure gauge isolator

R7798 Pressure gauge snubber

#### **Bulb Covers**

Find bulb types and quantities of bulbs needed on table of each gauge. Intended for use on automotive (black face) only. For EV gauges only.

ORANGE	BLUE	GREEN	BULB TYPE
R7768	R7769	R7770	T-10
R7771	R7772	R7773	T-5
R7774	R7775	R7776	T-6.5

## EV Replacement Bulbs

		T-5	T-6.5	T-10
12	/	R7780	R7781	R7782
24\	/	R7783	R7784	R7785

#### **Displays**

R0005 EV Countertop Display. Automotive (black face), 2 1/16" pyrometer, turbo boost, oil temperature gauges.

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# ABOUT ISSPRO, INC.

For over 55 years, ISSPRO has manufactured OEM instrumentation products for the global marketplace and also serves as a complete instrumentation supplier to the aftermarket. From concept to design to production, ISSPRO is committed to delivering superior products that meet the technical and budget requirements of its customers.

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