

## Model 1205B

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### Rotary Torque/RPM/HP Measurement System

#### DESCRIPTION

Model 1205B is a wireless telemetry system capable of monitoring the parameters of torque, RPM, and horsepower utilizing a 1226A collar assembly, 2120B transmitter, stationary loop antenna, 1211D power separation unit, and 1642A receiver unit.

#### FEATURES

- dc to 1000 Hz frequency response
- Three analog outputs and optional isolated output channel
- 10 kHz sampling rate
- 175 microstrain (0.5 mV/V) transmitter sensitivity
- Bench-mounted signal conditioner and readout

# Model 1205B

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Frequency response	dc to 1000 Hz
Sensitivity (transmitter)	175 microstrain (0.5 mV/V)
Number of channels	1 to 3
Sampling rate	10 kHz
Receiver readout display type	3.5 digit 7 segment LED

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating (transmitter)	-55 °C to 125 °C [-67 °F to 257 °F]
Temperature, operating (receiver/IPS/PSU)	10 °C to 50 °C [50 °F to 122 °F]
Temperature, compensated (transmitter)	0 °C to 75 °C [32 °F to 167 °F]
Temperature, compensated (receiver)	10 °C to 50 °C [50 °F to 122 °F]
Static G force (rotating components)	15000 G
RPM limits (rotating components)	See graph - depends on shaft diameter
Vibration (rotating components)	100 G to 1 kHz
Collar weight	Varies with shaft diameter
Electronics weight (not including cables)	Receiver and PSU 12,2 kg [27 lb]

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Induction power source	160 kHz $\pm$ 6 %
Cable length (IPS to receiver)	4,6 m [15 ft] standard <sup>1</sup>
Max. cable length (IPS to receiver)	152,4 m [500 ft]
Power supply voltage (receiver)	115/230 Vac user-selectable
Power consumption (receiver)	100 VA max.
RF operating frequency	10.7 MHz <sup>2</sup>
RF modulation type	FSK
Analog output (receiver)	$\pm$ 10 Vdc @ 5 mA max.
Output impedance (receiver)	< 1 Ohm
Electrical termination (receiver output)	BNC female
Mating connector (receiver output)	BNC male
Electrical termination (transmitter)	9 pins, 0,64 mm [0.025 in] diameter

1. 4,6 m [15 ft] is the standard cable length, other lengths are available. Consult factory.
2. Consult factory for other frequencies.

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## OPTION CODES

<b>Range Code</b>	Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see <a href="http://sensing.honeywell.com/TMsensor-ship">http://sensing.honeywell.com/TMsensor-ship</a> for updated listings.
<b>Compensated transmitter temperature</b>	<b>62s.</b> 100 °C [212 °F]
<b>Display (receiver)</b>	<b>62c.</b> Remote display
<b>Vibration and shock (PSU)</b>	<b>62j.</b> Vibration/shock rated PSU
<b>RF operating frequency</b>	10.7 MHz <sup>1</sup>
<b>Analog output (receiver)</b>	±10 Vdc @ 1 mA <b>62e.</b> 1 channel 4 mA to 20 mA isolated output

1. 4,6 m [15 ft] is the standard cable length, other lengths are available. Consult factory.

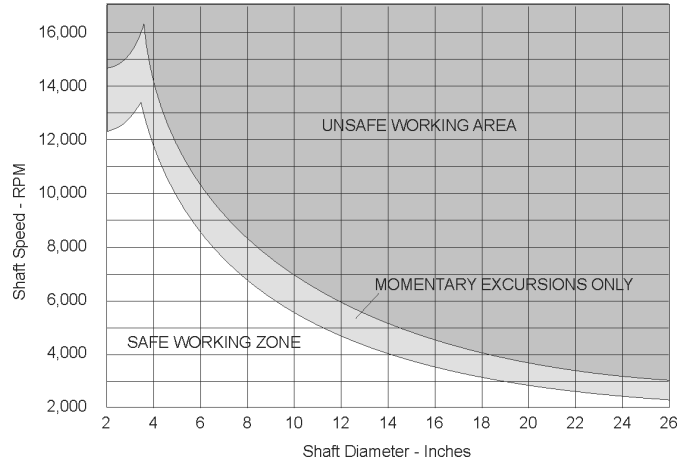
## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Dimensions (collar cross section)	31,8 mm x 31,8 mm [1.25 in x 1.25 in] typical (152,4 mm [6 in] OD min.)
Dimensions (receiver) (L x W x H)	431,8 mm x 457,2 mm x 133,3 mm [17 in x 18 in x 5.25 in]
Dimensions (IPS) (L x W x H)	152,4 mm x 101,6 mm x 50,8 mm [6 in x 4 in x 2 in]
Shaft diameter limits (collar)	50,8 mm to 1066,8 mm [2 in to 42 in] <sup>3</sup>
Collar material	Type G-11 glass epoxy

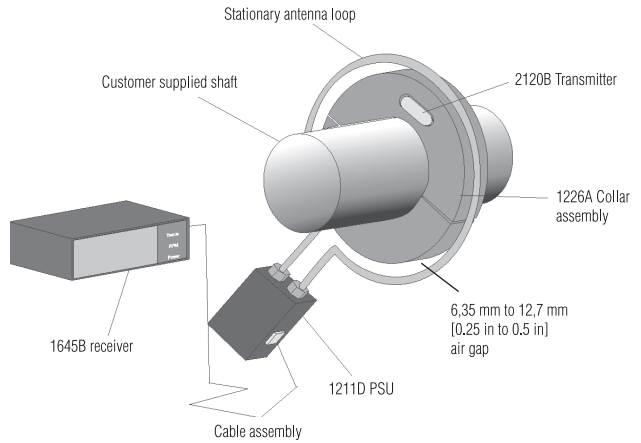
3. 50,8 mm to 203,2 mm [2 in to 8 in] is standard shaft diameter, consult factory for other shaft diameters.

## RPM LIMITS GRAPH

OPERATING RPM LIMIT VS. SHAFT DIAMETER



## TYPICAL SYSTEM DIAGRAM



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**Warranty.** Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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Email inquiries to [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

 **WARNING**  
**PERSONAL INJURY**

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

 **WARNING**  
**MISUSE OF DOCUMENTATION**

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

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