Remote Contact Assembly (RCA)

SAFEGUARDS AND PRECAUTIONS:

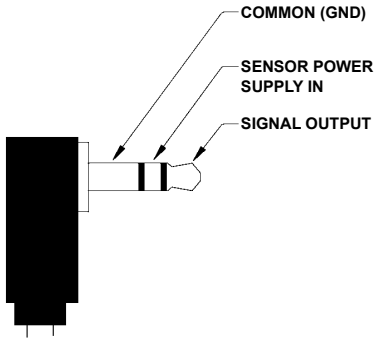
WARNING: Making measurements in direct contact with rotating equipment can be dangerous. Keep all loose clothing and hair away from exposed moving machinery. Keep the hand holding the RCA well behind the front flange of the Remote Contact Assembly. Properly replace all the machinery guards after completing measurement. Do not use for rotation greater than 20,000 RPM.

Not designed for continuous operation.

The RCA is an accessory for measuring contact RPM, linear speeds or totalizing lengths. It needs to be plugged into a tachometer to be functional. It is supplied with two rubber tips (one concave and one convex) and a 10 cm wheel. An optional 12 inch wheel is available. When used with the Monarch Pocket Laser Tach 200, the unit outputs 12 pulses per revolution (ppr). The maximum operating range of the RCA is 20,000 RPM when used with a contact tip and 12,000 RPM when used with a linear wheel.

Remote Contact Assembly with 8 ft (2.5 m) cable, contact tips and two linear speed wheels (12 inch wheel sold separately)

The RCA plugs into the 3.5 mm stereo input jack of the tachometer. Connector pinouts are as shown below.



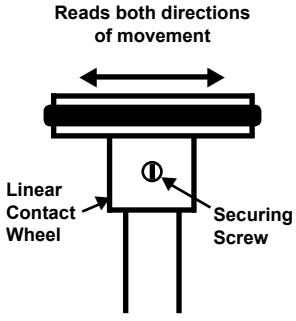
RCA Output Connector - Connection Detail

To measure rotational speed (RPM), select either a convex or concave rubber tip appropriate for the measurement to be made and install it firmly on the shaft of the RCA. Note that the shaft has a flat surface that must align with the flat in the rubber tips. The pointed convex (conical) tip is used for moderate to large diameter shafts that are equipped with a turned center, while the concave (inverted conical) tip is used on smaller diameter shafts. The circumference of the concave tip is 1.0 inch (2.54 cm).

Refer to the tachometer's operating instruction on how to set up the tachometer for contact measurement of speed, rate, or totalization.

To make a measurement, start the rotating equipment and carefully move the contact tip against the center on the end of the rotating shaft. Keep the hand holding the RCA well behind the back edge of the front flange of the RCA. Use only a moderate amount of pressure to keep the rubber tip in contact with the rotating shaft.

Surface speed linear rate measurements are made with the Linear Speed Wheels. The 10 cm Linear Speed Wheel must be pushed back onto the shaft, aligning the flats. Secure it in position by firmly tightening the small machine screw on the wheel. The optional 12 inch wheel also has a slot that must engage with the pin in the RCA shaft and a locking screw which must be tightened.



WARNING: Do not attempt to use the Linear Speed Wheel if the securing screw is not tight.

To measure a linear surface speed and/or total length such as a moving belt, roll or web, first select the Rate (Linear Contact) or Total mode on the tachometer and set the wheel size (10 cm or 12 inch). Hold the RCA at a right angle (90 degrees) to the direction of movement and gently contact the rubber edge of the wheel against the belt or top surface of the object to be measured. For accurate results, be sure that the wheel edge is held perpendicular (at 90°) to both the measurement plane and the direction of travel. Only a very moderate amount of pressure is required. Excess pressure can load the RCA shaft causing an erroneous reading and eventual wear in the bearings of the RCA.

In order to comply with EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE):

This product may contain material which could be hazardous to human health and the environment. DO NOT DISPOSE of this product as unsorted municipal waste. This product needs to be RECYCLED in accordance with local regulations, contact your local authorities for more information. This product may be returnable to your distributor for recycling - contact the distributor for details.

Monarch Instrument
15 Columbia Drive Amherst, NH 03031-2334 www.monarchinstrument.com
Tel: 603-883-3390 Fax: 603-886-3300 E-mail: sales@monarchinstrument.com

1071-4839-114R
022613