

Iteco Instruments



5 DIGIT OPTICAL HAND TACHOMETER



9801.001 - 5 DIGIT OPTICAL

DIGITAKER 9801.001 is a microcomputer based digital tachometer for rotational speed measurements, particularly suitable in application where a physical contact with the moving part cannot be obtained and braking force cannot be applied.

DIGITAKER has a measuring range of 2.0 to 100,000 r.p.m. with automatic decimal point selection in order to ensure a high degree of accuracy.

TOTALIZING function allows to count the incoming pulses.

DIGITAKER is provided with an auxiliary input for an optional external sensor.

By inserting the 8830.001 contact sensor, linear speed measurements can be made.

TECHNICAL FEATURES

Readout: 5 digit ultrabright LED displays
 Accuracy: $\pm 0,1$ r.p.m. up to 999.9 r.p.m.
 $\pm 0,005\%$ from 1000 to 100,000 r.p.m.
 Power supply: 4 batteries UM3 1,5V
 Operating temperature: from 0 to 45°C
 Dimensions: 180x60mm
 Weight: 0.4Kg

Measuring range: from 2.0 to 100,000 r.p.m.
 Measuring period:
 Each rotation from 2.0 to 60.0 r.p.m.
 1 second from 60,0 to 100,000 r.p.m.

Standard accessories:
 Plastic case for tachometer and sensors
 Set of 5 self-adhesive reflective tabs

9801.001 5 digit optical hand tachometer
7817.006 Spare 5 self-adhesive reflecting tabs (25x90)



ROTATION SPEED MEASUREMENT

- Apply a reflective strip on the rotating part.
- Point optical head towards the strip.
- Press the MEASURE push-button.
- Releasing the push-button, the measured value is held in memory.

LINEAR SPEED MEASUREMENT

- Insert 8830.001 contact sensor (optional) connector into the external connector input of the tachometer.
- Select through the SEL push-button the desired measuring unit (m/min).

OPTIONAL SENSORS

8830.001 Contact sensor
8810.001 Optical sensor
8810.010 Proximity switch



5 DIGIT CONTACT HAND TACHOMETER

9802.001 5 DIGIT CONTACT

DIGITAKER 9802.001 is a microcomputer based digital tachometer for rotation and feed speed measurements by means of a hard rubber contactor placed on the outlet spindle of the device itself.

DIGITAKER has a measuring range from 0.2 to 30,000 r.p.m. with automatic decimal point selection in order to ensure a high degree of reading accuracy.

A calibrated rubber wheel is provided for linear speed measurements directly in m/min or feet/min.

TOTALIZING function allows to count the incoming pulses (10 pulses per revolution, 1 centimeter every pulse when the rubber wheel is inserted).

DIGITAKER is provided with an auxiliary input for optional external sensor fitting.



TECHNICAL FEATURES

Readout:	5 digit ultrabright LED displays
Accuracy:	$\pm 0,1$ r.p.m. up to 999.9 r.p.m. $\pm 0,005\%$ from 1000 to 100,000 r.p.m.
Power supply:	4 batteries UM3 1,5V
Operating temperature:	from 0 to 45°C
Dimensions:	180x60mm
Weight:	0.4Kg
Measuring range:	from 0,2 to 30,000 r.p.m. linear speed from 0,02 to 3,000m/min
Measuring period:	1 second
Standard accessories:	Plastic case for tachometer and sensors Set of 3 hard rubber tips. Rubber wheel to measure m/min and feet/min.

9802.001	5 digit contact hand tachometer
7608.009	Set of 7 spare rubber tips
7608.010	Spare surface wheel

ROTATION SPEED MEASUREMENT

- Contact the tachometer tip to the shaft center of the rotating part.
- Press the MEASURE push-button.
- Releasing the push-button, the measured value is held in memory.

LINEAR SPEED MEASUREMENT

- Apply the hard rubber wheel to the tachometer outlet spindle.
- Select through the SEL push-button the desired measuring unit (m/min).

OPTIONAL SENSORS

- 8830.001** Contact sensor
- 8810.001** Optical sensor
- 8810.010** Proximity switch



EXTERNAL SENSORS FOR 5 DIGIT HAND TACHOMETERS

8810.001 OPTICAL SENSOR

Modulated infrared ray system optical detector.
A strip of reflective paper on the rotating part is needed to get the r.p.m. measurement.
Measuring range: from 2.0 to 100,000 r.p.m.
Reflection range: from 10 to 300mm
Dimensions: Chromed brass casing M27x73mm
Cable length: 3m (standard), optional up to 30m max.
Standard accessories: set of 5 reflective adhesive strips

8810.001 Optical sensor - temp.range 0 to +45°C
8810.002 Optical sensor - temp.range -20 to +70°C
7817.006 Spare 5 self-adhesive reflecting tabs
9994.854 Optional cable (exceeding the 3m standard)

8830.001 CONTACT SENSOR

For rotation and linear speed measurement, connect to the rotating part for rotation measurement or apply the calibrated wheel for linear speed measurement.

Measuring range: from 0.2 to 30,000 r.p.m.
from 0.02 to 3000 m/min
Operating temperature: from 0 to +45°C
Dimensions: Chromed brass casing M27x93mm
Cable length: 3m (standard), optional up to 30m max.
Standard accessories: Set of 3 hard rubber tips.
Rubber wheel to measure m/min and feet/min.

8830.001 Contact sensor (3m cable)
9994.854 Optional cable (exceeding the 3m standard)
7608.009 Set of 7 spare rubber tips
7608.010 Spare surface wheel

8810.010 PROXIMITY

Proximity magnetical sensor for rotational speed measurements in dusty environments.
Needs only one reference per round.

Measuring range: from 2.0 to 100,000 r.p.m.
Operating temperature: from 0 to +60°C
Dimensions: Chromed brass casing M12x36mm
Cable length: 3m (standard), optional up to 10m max.
Sensitivity: 2mm (typical 1mm)

8810.010 Proximity sensor (3m cable)



5 DIGIT MECHA-OPTO HAND TACHOMETER



9803.001 - 5 DIGIT MECHA-OPTO

DIGITAKER 9803.001 is a microprocessor based digital tachometer with quartz crystal oscillator to maintain high accuracy. It has a mechanical contact assembly at the top of the unit and an integrated infrared transmitter and receiver at the base of the unit. The 5-digit LED automatically inverts when switched from contact to optical so that the display is always the right way up when viewed.

For optical reading, a reflective adhesive tab is applied on the rotating part.

DIGITAKER has a measuring range from 0.2 to 100,000 r.p.m. with automatic decimal point selection in order to ensure the better reading accuracy degree. TOTALIZING function allows to count the incoming pulses.

A calibrated rubber wheel is provided for linear speed measurement directly in m/min or feet/min.

TECHNICAL FEATURES

Readout: 5 digit ultrabright LED displays
Accuracy: $\pm 0,1$ r.p.m. up to 999.9 r.p.m.
 $\pm 0.005\%$ from 1000 to 100,000 r.p.m.
Power supply: 4 batteries UM3 1,5V
Operating temperature: from 0 to 45°C
Dimensions: 180x60mm
Weight: 0.4Kg
Measuring range: from 0.2 to 100,000 r.p.m.
Measuring period: 1 second

Standard accessories:

Plastic case for tachometer and sensors
Set of 3 hard rubber tips.
Rubber wheel for measuring m/min and feet/min.
Set of 5 reflective adhesive strips

9803.001 5 digit mecha-opto hand tachometer
7608.009 Set of 7 spare rubber tips
7608.010 Spare surface wheel
7817.006 Spare 5 self-adhesive reflecting tabs

4 DIGIT OPTICAL HAND TACHOMETER



4 DIGIT CONTACT HAND TACHOMETER



9003.001 - 4 DIGIT OPTICAL

DIGITAKER 9003.001 is a microcomputer based digital tachometer for rotation speed measurements, particularly suitable in application where a physical contact with the moving part cannot be obtained and braking force cannot be applied.

DIGITAKER has a measuring range of 2.0 to 20,000 r.p.m. with automatic decimal point selection in order to ensure a higher degree of reading accuracy.

TECHNICAL FEATURES

Readout:	4 digit ultrabright LED displays
Accuracy:	$\pm 0,1$ r.p.m. up to 999.9 r.p.m. $\pm 0.005\%$ from 1000 to 20,000 r.p.m.
Power supply:	4 batteries UM3 1,5V
Operating temperature:	from 0 to 45°C
Dimensions:	180x60mm
Weight:	0.4Kg
Measuring range:	from 2.0 to 20,000 r.p.m.
Measuring period:	Each rotation from 2.0 to 60.0 r.p.m. 1 second from 60.0 to 20,000 r.p.m.

Standard accessories:
Plastic case for tachometer and sensors
Set of 5 reflective adhesive strips

9003.001 4 digit optical hand tachometer

9004.001 - 4 DIGIT CONTACT

DIGITAKER 9004.001 is a microcomputer based digital tachometer for rotation and feed speed measurements by means of hard rubber contactor placed on the outlet spindle of the device itself.

DIGITAKER has a measuring range from 0.2 to 20,000 r.p.m. with automatic decimal point selection in order to ensure the better reading accuracy degree. A calibrated rubber wheel is provided for linear speed measurement directly in m/min or feet/min.

TECHNICAL FEATURES

Readout:	4 digit ultrabright LED displays
Accuracy:	$\pm 0,1$ r.p.m. up to 999.9 r.p.m. $\pm 0.005\%$ from 1000 to 20,000 r.p.m.
Power supply:	4 batteries UM3 1,5V
Operating temperature:	from 0 to 45°C
Dimensions:	180x60mm
Weight:	0.4Kg
Measuring range:	from 0.2 to 20,000 r.p.m. linear speed from 0,02 to 2,000m/min
Measuring period:	1 second

Standard accessories:
Plastic case for tachometer and sensors
Set of 3 hard rubber tips.
Rubber wheel for measuring m/min and feet/min.

9004.001 4 digit contact hand tachometer
7608.009 Set of 7 spare rubber tips
7608.010 Spare surface wheel

9215 MULTIFUNCTION TACHOMETER



TACHOMETER

The instrument computes the speed value according to the input pulse frequency coming from the external detector (proximity, pick-up, optical detector, etc.).

FREQUENCY METER

The instrument computes the input pulse frequency value. This value can be converted into another unit format in order to correspond to the desired measuring unit.

TOTALIZER

Input pulses coming from an external sensor (proximity, pick-up, etc.) are totalized. This value can be converted into another unit format in order to correspond to the desired measuring unit.

TIMER

When the "SIGNAL" input is connected to GROUND the timer starts counting until the input returns to the open condition.

TECHNICAL FEATURES

Display 5 digit high efficiency LED 13mm height
 Accuracy $\pm 0.005\% \pm 1$ digit
 OVERFLOW indication
 HOLD function
 MAX and MIN value memory
 4 function decimal point (0-1-2-auto)
 Parameters are easily set on the front panel keyboard
 2 alarm relays fully programmable.

SENSORS Optical detector, Proximity, Pick-up,
 Contact sensor, encoder, etc.
 Sensor power supply : 12Vdc/30mA
 or 5Vdc/30mA

Input waveform :

Sinusoidal min 100mVpp (at 1KHz), max 50Vac
 Square or open-collector low=0-1.5V high=4-30V
 INPUT LOAD (pick-up): 18K Ω
 INPUT LOAD (open collector): 2K Ω

MINIMUM FREQUENCY RATE:

Tachometer 2 r.p.m. (1 pulse per rev.)
 Frequency-meter 0,034Hz

MAXIMUM FREQUENCY RATE:

Tachometer and frequency-meter 30KHz
 Totalizer 30KHz

ALARM RELAYS

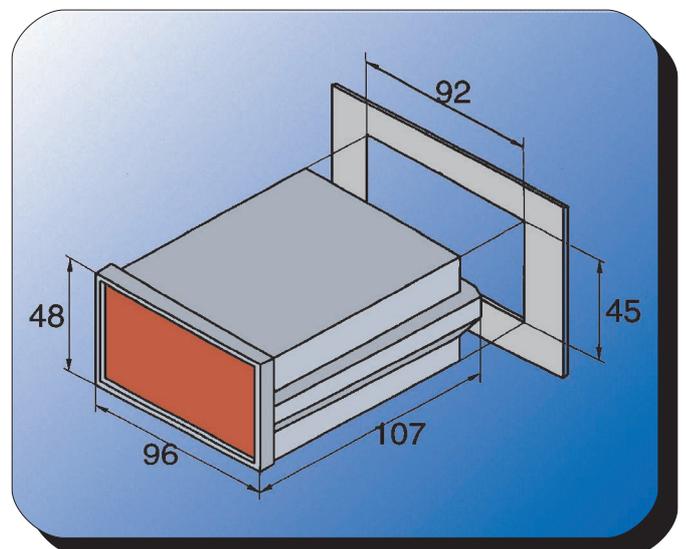
Max. allowed current: 1A at 125 Vac
 Max. commutating power: 50VA

Power supply

9215.009 9-36Vdc
 9215.011 110-240Vac

OPZIONI

9010.100 Optional ANALOG OUTPUT
 0-10V and 4-20mA
 9010.200 Optional RS232C optoinsulated
 for remote connection to host computer



EXTERNAL SENSORS FOR PANEL TACHOMETERS

OPTICAL SENSOR 8209.002

Modulated infrared ray system optical detector.
 A strip of reflective paper on the rotating part is needed to get the r.p.m. measurement.
 Measuring range: from 2.0 to 100,000 r.p.m.
 Reflection range: from 10 to 300mm
 Dimensions: Chromed brass casing M27x73mm
 Cable length: 3m (standard), optional up to 30m max.
 Standard accessories: set of 5 reflective adhesive strips

8209.002 Optical sensor - temp.range 0 to +45°C
8209.004 Optical sensor - temp.range -20 to +70°C
7817.006 Spare 5 self-adhesive reflecting tabs
9994.854 Optional cable (exceeding the 3m standard)

CONTACT SENSOR 8830.002

For rotation and linear speed measurement, connect to the rotating part for rotation measurement or apply the calibrated wheel for linear speed measurement.

Measuring range: from 0.2 to 30,000 r.p.m.
 from 0.02 to 3000 m/min
 Operating temperature: from 0 to +45°C
 Dimensions: Chromed brass casing M27x93mm
 Cable length: 3m (standard), optional up to 30m max.
 Standard accessories: Set of 3 hard rubber tips.
 Rubber wheel to measure m/min and feet/min.

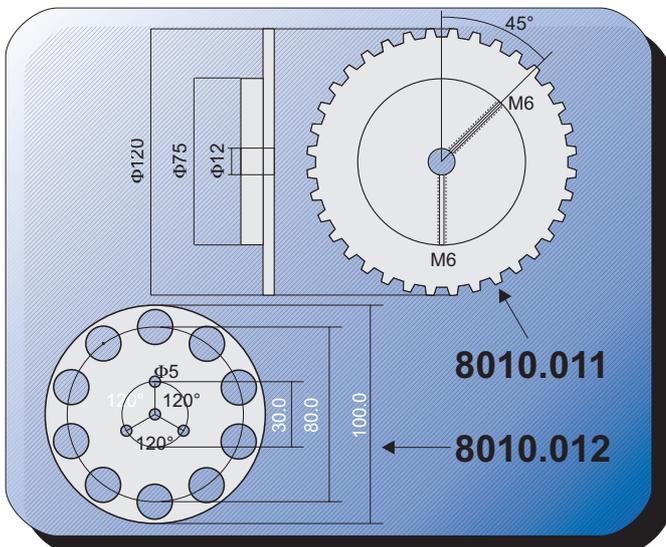
8830.002 Contact sensor (3m cable)
9994.854 Optional cable (exceeding the 3m standard)
7608.009 Set of 7 spare rubber tips
7608.010 Spare surface wheel

8210.002 PROXIMITY

Proximity magnetical sensor for rotational speed measurements in dusty environments.
 Needs only one reference per round.

Measuring range: from 2.0 to 100,000 r.p.m.
 Operating temperature: from 0 to +60°C
 Dimensions: Chromed brass casing M12x36mm
 Cable length: 3m (standard)
 Sensitivity: 2mm (typical 1mm)

8210.002 Proximity sensor (3m cable)



TOOTHED WHEEL FOR PICK-UP

Type: Iron toothed wheel, 60 teeth
 Dimensions: 120x15mm
 Fixing: two 6MA threaded holes

8010.011 TOOTHED WHEEL FOR PICK-UP

PUNCHED WHEEL FOR PROXIMITY

Type: Iron punched wheel, 1.2mm width
 Dimensions: 100mm
 Hole number : 10
 Fixing: 3 holes at 120° + 1 central hole

8010.012 PUNCHED WHEEL FOR PROXIMITY

TACHIMETRI DA PANNELLO SERIE 8413

8413 DIGITAL PANEL TACHOMETERS

The digital tachometers series 8413 are panel types and input can be provided through different kinds of transducers in order to meter the r.p.m. of a motor, or any other rotating part and also linear speed measurement ,

The main features are the low cost and the high accuracy, and make them suitable in applications where no special features other than accuracy are required.

The tachometers are grouped in two basic families:

8413.040/042/044/046 four digits

8413.050/052/054/056 five digits



MODEL	DIGITS	MEASURING RANGE	TRANSDUCER	PULSE PER REVOLUTION	POWER
8413.040	4	2 - 10'000	Optical det. - proximity	1	230Vac / 9-28Vdc
8413.042	4	0.2 - 10'000	Contact detector Proximity +8010.012	10	230Vac / 9-28Vdc
8413.050	5	2 - 100'000	Optical det. proximity	1	230Vac / 9-28Vdc
8413.052	5	0.2 - 30'000	Contact detector Proximity +8010.012	10	230Vac / 9-28Vdc
8413.044	4	2 - 10'000	Optical det. - proximity	1	110Vac / 9-28Vdc
8413.046	4	0.2 - 10'000	Contact detector Proximity +8010.012	10	110Vac / 9-28Vdc
8413.054	5	2 - 100'000	Optical det. - proximity	1	110Vac / 9-28Vdc
8413.056	5	0.2 - 30'000	Contact detector Proximity +8010.012	10	110Vac / 9-28Vdc

TECHNICAL FEATURES

Display: 4 or 5 digits, 13mm height LED display
 Measuring period: 1 second
 Accuracy: ± 1 r.p.m. up to 10,000 r.p.m.
 $\pm 0.005\%$ over 10,000 r.p.m.

Operative temperature: from 0° to 45°C
 POWER SUPPLY: AC 110/230Vac
 (according the model)
 DC from 9 to 28Vdc

Weight: 0.33Kg
 Case: DIN 48x96x107mm
 DIMMER input command
 Decimals 1 oppure 0

TRANSDUCER Optical detector, Proximity, Contact detector, encoder, etc.

TRANSDUCER POWER SUPPLY: 5Vdc/30mA

INPUT SIGNAL WAVEFORM :
 square or open-collector low=0-1.5V high=4-30V
 INPUT IMPEDANCE 2K Ω

MINIMUM SPEED (040/044/050/054): 2 r.p.m.
 MINIMUM SPEED (042/046//052/056): 0,2 r.p.m.

MAXIMUM SPEED (040/044/050/054):
 100000 r.p.m.

MAXIMUM SPEED (042/046//052/056):
 30000 r.p.m.