



600EN-128-CBL

600 Series Optical, 128 Pulse Per Rev, 2-square wave

Features

- Long life-10 million revolutions minimum (no contacts)
- Cost effective, eliminates need for A/D converters
- Stainless steel shafts and nickel-plated bushings
- Stability from -40 °C to 65 °C [-40 °F to 149 °F]
- Cable and printed circuit terminations available

Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

Typical Applications

- Motion sensing and control
- Motor control
- Flow control
- Low-to-high input for test and measurement
- Medical and instrumentation
- Robotics
- Computer peripherals

Description

The 600 Series controls are manually operated, rotary, optical encoders that output two square waves in quadrature at a rate of 128 pulses per channel per revolution as a standard with other resolutions down to 60 pulses available. The outputs are TTL compatible. PC terminals or cable leads are available.



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Product Specifications	
Encoder Type	Optical
Pulse Per Rev	128 pulses/rev
Dome Switch	No
Output	2-square wave, Channel A leads Channel B by 90 ° electrically in counterclockwise direction
Electrical Travel	Continuous
Source Voltage Range	4.75 Vdc min., 5.0 Vdc nom., 5.25 V max.
Supply Current	30 mA
Voltage Out High	2.4 Vdc min.
Voltage Out Low	0.4 Vdc max.

Pull-up Resistor	10 kOhms
Operating Speed	300 RPM max.
Operating Torque	0,011 Nm [1.5 oz in] max.
Terminals	190,5 mm [7.5 in] long cable/lead
Terminals Strength	0,9 kg [2.0 lbs]
Housing	Molded thermoplastic
Mechanical Travel	Continuous
Rotational Life	10 million shaft rotations
Shaft Axial Force	6,8 kg [15 lbs] push/pull
Shaft End Play	0,127 mm [0.005 in] max.
Shaft Radial Play	0,254 mm [0.01 in] at 25,4 mm [1 in]
Shaft Material	Stainless Steel
Shaft Diameter	6,35 mm [0.25 in]
Shaft length	19,05 mm [0.75 in]
Bushing Material	Nichel plated brass
Bushing Diameter	9,53 mm [0.375 in] x 32 NEF-2A
Bushing length	9,53 mm [0.375 in]
Operating Temperature	-40 °C to 65 °C [-40 °F to 149 °F]
Storage Temperature	-55 °C to 110 °C [-67 °F to 230 °F]
Humidity	85% RH at 40 °C [104 °F] 240 Hr
Shock	100 G at 6 per MIL-STD-202; Method 213, Condition C
Vibration	10 Hz to 2000 Hz, 15 G; MIL-STD-202, Method 204, Condition C
Series Name	600 Series
Availability	Global
UNSPSC Code	30211929
UNSPSC Commodity	30211929 Encoders

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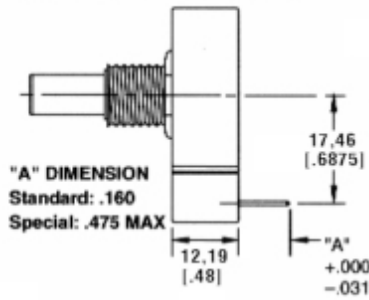
DIMENSIONS (For Reference Only) mm [in]

Styles

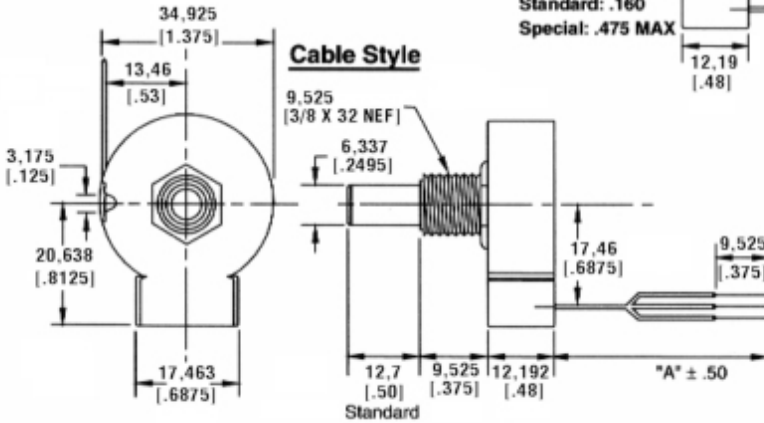
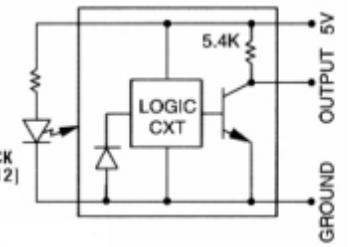
600 Series

- 600 Sleeve Bearing
- 605 Sleeve, single channel
- 610 Ball bearing
- 615 Ball bearing, single channel

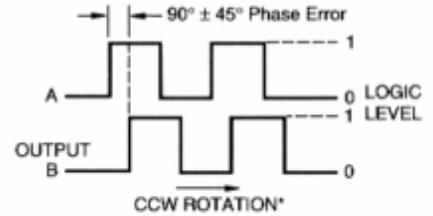
PC Terminals: Type C-24



Block Diagram One Output

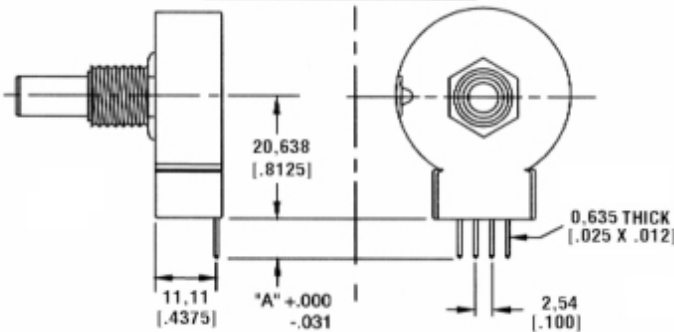


Output Waveform



*Channel A leads Channel B by 90° electrically in CCW direction

PC Terminals Type B-66



TERM #	FUNCTION
1	5VDC ± 5% @ 30ma MAX
2	"A" Out
3	Ground
4	"B" Out

"A" DIMENSIONS	
Standard	4.57 [.180]
Special	10.16 [.400] MAX.

Dimension Tolerances, Unless Otherwise Specified
 FRACTIONS = ± 1/64 (0.40mm) DECIMALS = ± .005

GRDS = ± 010 (0.25mm)

NOTE:

- "A" Cable Length Standard 190.5 [7.5]
Other lengths available, specified by customer
- "A" and "B" Outputs are TTL compatible on all models

CABLE CODE

COLOR	FUNCTION
Red	5VDC ± 5% @ 30ma MAX
Green	Ground
Yellow	"A" Out
Orange	"B" Out



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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 product sheet (or catalog) 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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