Penny + Giles industrial angular position sensors are designed to provide reliable performance in the most arduous operating conditions. The instrument can be specified either as a voltage dividing potentiometer incorporating the high performance advantages of Penny + Giles hybrid track technology, or for variable resistance applications, with a wire-wound track. Penny & Giles has a long established capability in design and manufacture for measurement and control projects and offers a comprehensive product range from stock, plus an efficient custom-build service.

- Two standard models available
  - with a hybrid track for use in the voltage divider mode
  - with a wire-wound track for variable resistance applications

- Wide range of resistance and electrical operating angles
- Purpose designed for use in rugged industrial environments
- Stainless steel shaft & zinc alloy body

- Sealed to IP65
- Infinite resolution with hybrid track
- Range of sensors available ex-stock
INDUSTRIAL ANGULAR POSITION SENSOR – IAPS 762

SPECIFICATION
Track technology
Electrical angle ±2°
Resist ance ±10%
Independence linearity
Power dissipation at 20°C
Applied voltage maximum
Starting torque – max
Resolution
Operating temperature
Output smoothness
Insulation resistance
Operating mode
Wiper circuit impedance
Life at 3Hz over ±30°
Mechanical angle

H ybrid [H]
325°
5kΩ
±0.5%
3W
122V
300gm cm
Virtually infinite
-20°C to + 85°C
To MIL-R-39023 grade C 0.1%
>500Ω at 500V d.c.
Voltage divider only
See note below
>100 x 10° cycles
Continuous 360°

Hybrid [H]
90°
1.3kΩ
±2%
0.8W
32V
300gm cm
Virtually infinite
-20°C to + 85°C
To MIL-R-39023 grade C 0.1%
>500Ω at 500V d.c.
Voltage divider only
See note below
>100 x 10° cycles
Continuous 360°

W irewound (W)
355°
2kΩ
±0.5%
2W
60V
300gm cm
2.9 turns per degree
-20°C to + 85°C
Not applicable
>50Ω at 500V d.c.
Variable resistance or voltage divider
Not applicable
>50 x 10° cycles
Continuous 360°

OPTIONS
Electrical angle - any up to †
Resistance ±10%
Linearity to
Resolution
Taps up to

EX-STOCK
Instruments normally available from stock

357°
2kΩ to 20kΩ over full range
±0.1%
Virtually infinite
3 maximum
† Power dissipation denotes with lower than standard electrical angles
Depending on resistance
762H/355/5K and 762H/90/1.3K

DIMENSIONS

ORDERING INFORMATION
Order Code
Track technology
Electrical angle
Resistance
Example
For linearity, taps and resolution options please contact Penny & Giles sales office

When you wish to order or obtain a quotation please code your requirements as below and state the quantity
IAPS 762 / H / 355 / 5K

IAPS 762H/355/5K is the order code for a hybrid track industrial sensor with a 355° electrical angle and 5kΩ resistance.

ELECTRICAL CONNECTIONS

Note
Hybrid track electronics elements feature a high wear contact resistance and should only be used in the voltage rangemaximum a minor circuit resistance of 50Ω to 100Ω should absorb the extra current (a maximum of 2.5mA) which is produced. Operation with heavy loads or power impulses will destroy the parts and must be avoided. All the electrical connections must be made to the voltage divider.

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