NS2/NSB2-KA
HEAVY MILL DUTY AC & DC
MASTER SWITCH

Construction:
The type NS2/NSB2-KA series of master switch controllers are characterized by their versatility and rugged construction for step and stepless AC & DC controls.

Application:

Features:
- **Rugged Construction**: Cast construction, double ball bearing operating shaft.
- **Mechanical Life**: 20 Million Cycles.
- **Serviceability**: Corrosion resistant components.
- **Handle**: Variety of handle styles and handle operated deadman functions.
- **Precise Step Control**: Up 7-0-7 individually detented steps.
- **Contacts**: (10) 25A 600 VAC double pole field-replaceable contacts. Type NSB2 DC contacts with magnetic blow outs.
- **Potentiometers**: 0.5 watt 5 million revolutions conductive plastic furnished standard.
- **Transformers**: Type DGO rotary differential transformers for variable speed drives.
- **Electronics**: ESS-420: 4-20 milli-amp 2 wire transmitter. ESS0.10.10: 0-10 and ±10V amplifiers. Absolute Encoder: 8 Bit 24VDC gray code. PFC and PFC/CR Proportional Feathering Control electronic amplifiers for operation of Electro-Hydraulic Proportional Valves.
- **Enclosures**: Variety of standard steel consoles available; NEMA 1, 3R, 4 and 12.
NS2/NSB2-KA ORDERING INFORMATION

Basic Assembly: 9 1/2" Shaft length and round ball handle supplied standard.
Drive Arrangement: N = Left, U = Right
Handle: Reference Handle for a selection of custom handles and handle operated deadman functions.
Contacts: Each contact block supplied with 2 poles.
          Maximum number of Contacts in each axis = 10 (5 double pole contact blocks).
Detents: Reference NS2/NSB2-KA dimensions for types available and applicable handle angle.
Potentiometers: 0.5 watt 5 million operations standard, specify resistance and type required.
          (Consult factory for custom requirements.)
Electronics: See PFC or PFC/CR, (Proportional Feathering Control electronics) for ordering information.
Rotary Transformer: See DGO transformer ordering information.

NS2-KA Technical Data

Mechanical:
- Operating Temperature: -25° to +70°C
- Detented Positions: Up to 7-0-7
- Mechanical Life: 20 million plus cycles
- Gear Ratio: 3:1
- Handle Travel: ± 40°
- Potentiometer rotation: ±120°
- Operations: Normal duty cycle
          1000 operations per hour

Electrical:
- Contacts: Double Pole contact blocks, 20 circuits maximum. (consult factory if additional circuits required.)
- Rating AC:
  NS2-KA
  AC continuous 25 amps @ 600 volts
  AC resistive 20 amps @ 240 volts
  AC inductive 14 amps @ 240 volts
- Rating DC:
  NSB2-KA (with magnetic blow-out)
  Resistive 5 amps @ 250 volts
  Inductive 2 amps @ 250 volts
- Maximum Switching Capacity:
  Making – 160 amps
  Breaking – (0.7PF) 240V 160 amps.
- Electro Mechanical Life: Breaking AC current.
  Resistive: 1 million operations @ 16 amps 240 V
          10 million operations @ 4 amps 240 V
  Inductive: 1 million operations @ 15 amps 240 V
          10 million operations @ 2 amps 240 V
Number of double contacts

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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<td>3.15</td>
<td>4.02</td>
<td>4.88</td>
<td>5.75</td>
<td>6.61</td>
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**Panel Mounting Detail**

- 4X Ø 2.76 [Ø7] or M6
- Dimension L1
  - 1 2 3
    - 2.28 3.15
  - 4 5 6 7 8
    - 4.88 6.61
  - 9 10
    - 9.21

**Handle options**

- Z RH00 MG21...
- BH
- Mechanical Interlock

**Weight:**

- Operating head - 10 lbs [4.5 kg]
- Each double pole - 0.9 lbs [0.4 kg]
- Contact block - 0.9 lbs [0.4 kg]