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1. New Catalog and Brochures Release

Our long awaited 2005 catalog is now available; you can either download it from our web site or give us a call for printed copies. We spent the past 6 months updating our catalog to reflect our growing product line.

We now have 3 separate brochures, 1 for Electronics, 1 for Handles and 1 for Joysticks. The brochures are available for download from our web site or printed copies are available upon request. Follow the links below to view or download.

[On-line Catalog](#)

[On-line Brochures](#)

2. Improved Joystick Knob Flange

The original release of our new joystick Knob failed to secure the joystick boot as well as anticipated. We are now releasing an updated version of the knob. All measurements are identical except that we have enlarged the boot sealing flange. This improvement secures the boot very well and ensures the joystick with the Knob has an IP66 water tight seal (above mounting surface).

3. \$10 Fee For Orders Under The Minimum

In January of 2004 we sent out a letter to all our dealers indicating we were implementing a \$50.00 minimum order policy. We are now enforcing this policy with a handling fee for orders under the minimum. The fee is \$10.00 Cdn or \$7.46 US. This small fee helps us to cover the cost of packaging and processing these small orders rather than increasing the price of our parts.

4. New Product Delivery Schedule

As you may have noticed our product delivery schedule has changed. Over the past year we have seen a substantial increase in sales volume. To keep up with this increase we have doubled the size of our production facility and added new personnel in production and sales. Please take note that our typical delivery time is now 1 – 2 weeks for custom orders and 1 week for stock orders. We will always do our best to produce orders as quickly as possible. Orders are scheduled as they are received on a first come first serve basis.

5. Custom Ordering Guide

We have updated our very popular Custom Handle Ordering Guide to include many of our latest options. We are also releasing a New Custom Joystick Ordering Guide. Our new "JL & JM" joysticks have many options; both joysticks come complete with wiring and your choice of our recently released "J" blank Handle or blank Knob, grey or black in color. As always if you don't see the option you are looking for, give us a call.

Please go to next page to see more details.

[Ordering Guide Details](#)

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5.1. Custom Ording Guide (Handles)

Example: **CG** **1** **M** **1** **1** **1** **1** **1** **1** **1** **1** **1** **10** **Dp**

#1 #2 #3 #4 #5 #6 #7 #8

Base Handle Options

- KB - K Knob (black)
- KG - K Knob (grey)
- SB - S Handle (black)
- SG - S Handle (grey)
- CB - C Handle (black)
- CG - C Handle (grey)
- JB - J Handle (black)
- JG - J Handle (grey)
- LB - L Handle (black)
- LG - L Handle (grey)

Trigger Options

- 0 - No Trigger
- 1 - Single Switch, 5 amp
- S - Sealed Switch, 3 amp
- G - Sealed Gold, 150 ma.
- 2 - Dual Switches, 5 amp
- S2 - Sealed Switches, 3 amp
- G2 - Sealed Gold, 150 ma.
- D - Deadman lever
- V - Variable Voltage Proportional Module

Faceplate Switch Options(positions #1 - #8)

- 0 - blank (hole plug)
- 1m- Standard Switch - (maintained rocker)
- S - Sealed Switch, 3 amp
- G - Sealed, Gold contacts, 150 ma.
- B - Maintained Switch, (Push on/ Push off)
- L - LED Installed (green)
- T - Toggle Switch, (maintained on/off)
- U - Toggle Switch, (on)/off/(on)
- V - Variable Voltage Proportional Module
- Vp- Variable Voltage Module (c/w 2.5 vdc center)
- W - Toggle Switch, on/off/on
- Y - Toggle Switch, on/off/(on)

Faceplate Style

- E- Option: Blank Insert Style
- M- Option: Standard Button Style
- R- Option: Rocker Lever Style
- M2 Standard assembly 2 button
- M4 Standard assembly 4 button
- M6 Standard assembly 6 button
- M8 Standard assembly 8 button

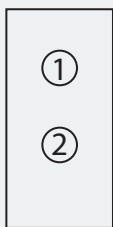
Wire Length

- 00 - unwired handle
- 02 - 2 feet
- 04 - 4 feet
- 06 - 6 feet
- 08 - 8 feet
- 10 - 10 feet
- 12 - 12 feet
- 14 - 14 feet
- 16 - 16 feet
- 20 - 20 feet

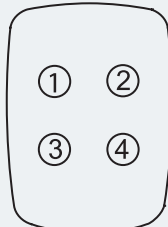
Custom Options

- CW - Custom Wiring
- DA - Danfoss Adapter Card
- Dd - Diverter Pack
- Dp- Diode Pack
- DPd - Diverter/Diode Pack, 6 func.
- KL - 10 Button Keypad, Left
- KR - 10 Button Keypad, Right
- R - Rocker Cover Kit installed
- A0 - Blank Adapter Bushing
- A1 - 10mm x 1.5 Bushing
- A2 - 12mm 1.25 Bushing
- A3 - 12mm x 1.75 Bushing
- A4 - 14mm x 2 Bushing
- A5 - 5/8" NC Bushing
- A6 - 14mm x 2 Bushing
- A7 - 3/8" NC Bushing
- A8 - 1/2" NC Bushing
- A9 - 9/16" NC Bushing
- SR - Strain Relief Bushing
- S2 - 12mm x 125 Stud
- S3 - 12mm x 175 Stud
- S4 - 14mm x 2 Stud

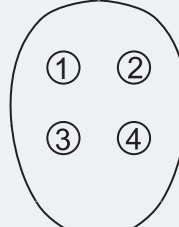
"S" Handle Faceplate



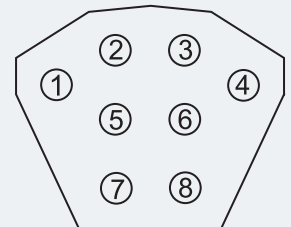
"C" Handle Faceplate



"J" Handle Faceplate



"L" Handle Faceplate



5.2. Custom Ording Guide (Joysticks)

Example: **JM** **P2** **D2** **02** **G**

Joystick Options

- JM
- JL

Outputs

- P1- Single Axis 5 vdc
- P2- Dual Axis 5vdc
- S1- Single Axis Switched
- S1G- Single Axis Gold Switched
- S2- Dual Axis Switched
- S2G- Dual Axis Gold Switches

Proportional Driver

- D2- 2.5amp 2Axis Valve Driver

Wire Length

- 02 - 2 feet

Custom Options

- JG - J Handle Grey
- JB - J Handle Black
- KB - Knob Black
- K1B - Knob Black 1 Button
- K2B - Knob Black 2 Button
- CW - Custom Wiring
- G - Gated
- G1 - Gated 1 Latch
- G2 - Gated 2 Latch

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6. Notice: SDB ramp rate 300 ms compensation during setup

Engineering change notice regarding the SDB-P1

The release of our latest PWM driver board has been a great success and we would like to thank all of our customers for their feedback and valued opinions regarding the functionality of the product. This feedback has highlighted some configuration and operational parameters that needed some adjustment to further enhance the SDB-P1's operation.



Single Axis Driver Board (Part# SDB-P1)

Current compensated driver configuration:

When installing the SDB-P1 into the final application it is necessary to calibrate the driver board to match the operating parameters of the equipment that is being controlled. As the SDB-P1 is a direct replacement for the discontinued PWM driver module, the calibration mode was initially implemented in an open loop (no current compensation). It has been determined that this can cause some confusion when changing from calibration to run mode. This issue is now resolved with the calibration mode now being closed loop (current compensated). Therefore when adjustments are made in calibration mode, the outputs will be consistent when calibration is complete and run mode is selected to lock in the calibrated values.

Adjustment of default ramp:

The factory set ramp has been increased from 50mS to 250mS. This is in response to general inquires about ramp configuration being greater than the response of most solenoids.

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7. IP rating and protection from water

IP (Ingress Progress) Codes in accordance with IEC 529

There are several different uses of IP Codes, as described in IEC 529. IP Codes can have the following arrangement:

1. First character only, such as IP 3X,
2. Second character only, such as IP X4, or
3. Both characters, such as IP 34.

The first character indicates the degree of protection against the ingress of solid foreign objects. First character definitions are as follows:

- 0 - Non-protected
- 1 - Protected against solid foreign objects of 50 mm diameter and greater
- 2 - Protected against solid foreign objects of 12.5 mm diameter and greater
- 3 - Protected against solid foreign objects of 2.5 mm diameter and greater
- 4 - Protected against solid foreign objects of 1.0 mm diameter and greater
- 5 - Dust-protected
- 6 - Dust-tight

The second character of the IP Code indicates the degree of protection against the ingress of water with harmful effects. Second character definitions are as follows:

- 0 - Non-protected
- 1 - Protected against vertically falling water drops
- 2 - Protected against vertically falling water drops as the enclosure is tilted 15 degrees
- 3 - Protected against spraying water
- 4 - Protected against splashing water
- 5 - Protected against water jetting
- 6 - Protected against powerful water jetting
- 7 - Protected against temporary immersion (1meter, 30 minutes)
- 8 - Protected against continuous immersion (1meter, > 30 minutes)