

PSW601B

INSTRUCTION SHEET

M3422/1002



INSTALLATION AND MAINTENANCE PSW601B SERIES OMEGA® ELECTRONIC SWITCHES FOR PRESSURE CONTROL

INTRODUCTION

The Omega pressure switch is a precision built control device which features a polysilicon thin film pressure sensor (Transducer). Controllers are available for operation on pressure or vacuum with fixed or variable differential. The standard electrical switch is a SPDT sealed mechanical relay. The wetted materials are 17-4pH and 316 stainless steel.

The Omega pressure switch is furnished in the standard NEMA 4 enclosures which are epoxy coated aluminum castings.

INSTALLATION

These controls are precision instruments and should never be left with internal components exposed. After installation, ensure that the covers are in place and the conduit openings are closed.

MOUNTING PSW601B SERIES

There are three holes external to the enclosures for surface mounting. The location of these holes are shown on the general dimension drawing. The controls may also be mounted directly on the pressure line using the pressure connection. **When tightening the control to the pressure line, always use the wrench flats or the hex on the lower housing.**

ELECTRICAL CONNECTIONS

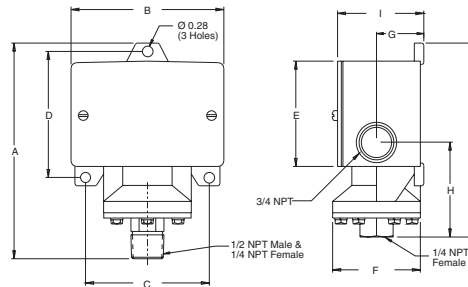
Remove cover

PSW601B Series – two screws hold cover to enclosure.

CONDUIT CONNECTIONS

Note – It is recommended that Teflon tape or other sealant be used on the conduit, bushing or plug threads to ensure the integrity of the enclosure.

PSW601B Series Standard – one 1/2



PSW601B

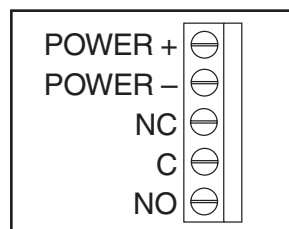
A	B	C	D	E	F	G	H	I	J	
5	4	3 1/4	3 5/16	2 3/4	2 5/16	1 3/16	2 3/4	2 5/16	2 3/4	1.8 lb
(127)	(102)	(83)	(84)	(70)	(59)	(30)	(70)	(56)	(70)	(.81 kg)

NPT conduit hole right side.

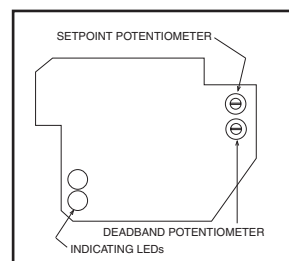
PSW601B SERIES

SPDT – Wire directly to the terminal block according to circuit requirements. For 120/250Vac 60Hz switch, wire power lines to terminals marked AC. For 24Vdc switch, wire positive power line to terminal marked 24Vdc+ and wire negative power line to terminal marked 24Vdc–.

Adjustment of Setpoint – A four turn



PSW601B TERMINAL BLOCK



PSW601B CIRCUIT LAYOUT

adjustment potentiometer is located at the upper right corner on the inside of the enclosure.

For accurate setpoint calibration, mount the switch on a calibration stand, a pump or catalog DWT-1305 deadweight gauge tester. A suitable reference standard such as an Omega Test Gauge is necessary to observe changes in pressure.

As received, the pressure switch will normally be set to approximately 90% of the indicated range. Pressurize the system to the required setpoint and turn the adjustment potentiometer until the switch changes mode. Clockwise rotation of the potentiometer will increase the setpoint and counter clockwise rotation of the potentiometer will decrease the setpoint. When the setpoint has been achieved, raise and lower the pressure to ensure that the setpoint is correct. The indicating LEDs will show red when the pressure is below the setpoint and green when the pressure is above the setpoint.

Adjustment of Deadband – A four turn adjustment potentiometer is located at the upper right corner on the inside of the enclosure just below the setpoint potentiometer.

The deadband is adjusted as above. Clockwise rotation of the potentiometer will increase the deadband and counter clockwise rotation of the potentiometer will decrease the deadband.

After installation of the control, replace the cover to ensure electrical safety and to protect the internal parts from the environment.



OMEGAnet® On-Line Service
www.omega.com

Internet e-mail
info@omega.com

Servicing North America:

USA:
ISO 9001 Certified

One Omega Drive, P.O. Box 4047
Stamford CT 06907-0047
TEL: (203) 359-1660 FAX: (203) 359-7700
e-mail: info@omega.com

Canada:

976 Bergar
Laval (Quebec) H7L 5A1
TEL: (514) 856-6928 FAX: (514) 856-6886
e-mail: canada@omega.com

For immediate technical or application assistance:

USA and Canada: Sales Service: 1-800-826-6342 / 1-800-TC-OMEGA®
Customer Service: 1-800-622-2378 / 1-800-622-BEST®
Engineering Service: 1-800-872-9436 / 1-800-USA-WHEN®
TELEX: 996404 EASYLINK: 62968934 CABLE: OMEGA

Mexico:

Tel: (001) 800-826-6342 FAX: (001) 203-359-7807
En Español: (001) 203-359-7803 e-mail: espanol@omega.com
info@omega.com.mx

Servicing Europe:

Benelux:

Postbus 8034, 1180 LA Amstelveen, The Netherlands
Tel: +31 (0)20 6418405 FAX: +31 (0)20 6434643
Toll Free in Benelux: 06 0993344
e-mail: nl@omega.com

Czech Republic:

Rudé armády 1868,73301 Karviná
TEL: +420 (0)69 6311899 FAX: +420 (0)69 6311114
Toll Free in Czech Rep.: 0800-1-66342
e-mail: czech@omega.com

France:

9, rue Denis Papin, 78190 Trappes
TEL: +33 (0)130 621 400 FAX: +33 (0)130 699 120
Toll Free in France: 0800-4-06342
e-mail: france@omega.com

Germany/Austria:

Daimlerstrasse 26, D-75392 Deckenpfronn, Germany
TEL: +49 (0)7056 3017 FAX: +49 (0)7056 8540
Toll Free in Germany: 0800 TC OMEGASM
e-mail: germany@omega.com

United Kingdom:

ISO 9002 Certified
P.O. Box 7, Omega Drive,
Irlam, Manchester,
M44 5EX, United Kingdom
TEL: +44 (0)161 777 6611 FAX: +44 (0)161 777 6622
Toll Free in England: 0800 488 488
e-mail: sales@omega.co.uk

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WARNING: These products are not designed for use in, and should not be used for, patient connected applications.

MADE IN

USA

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit should malfunction, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear are not warranted, including but not limited to contact points, fuses, and triacs.

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CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. P.O. number to cover the COST of the repair,
2. Model and serial number of product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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