The OMEGA® PSW400 Series pressure control is a precision device which features a snap-action switch. Fixed deadband is available with dual SPDT independently adjustable switches with various electrical ratings. Adjustable deadband is available with various electrical rating.

The PSW400 Series snap-action pressure switch offers a NEMA 7/9 explosion-proof enclosure, Class I, Div. 1 & 2, Groups B, C & D and Class II, Div. 1 & 2, Groups E, F & G. The enclosure is an epoxy-coated aluminum casting.

INSTALLATION
This control is a precision instrument and should never be left with internal components exposed. During installation, insure that covers are in place and conduit openings are sealed.

MOUNTING
Four holes in the bracket supplied are used in surface mounting of the control. Location of these holes is shown on the general dimension drawings. Mount on a vibration-free surface or pipe. When tightening control to pressure line, always use the wrench flats or hex on the pressure connection. Never tighten by twisting the case.

ELECTRICAL CONNECTION
Remove top cover; the cover unscrews CCW. Wire directly to the switch according to circuit requirements.

CONDUIT CONNECTIONS
Two ¾ NPT holes are provided, one fitted with a plug, the other with a cap. It is recommended that Teflon tape or other sealant be used on conduit bushing or plug threads to ensure integrity of the enclosure.

SETPOINT ADJUSTMENTS
Dual Setpoint Switch
Remove front cover, which is held in place by two screws. There are two range adjusting wheels. The adjusting wheel on the left (labeled A) controls the left switch, the adjusting wheel on the right (labeled B) controls the right switch. The switches are set independently.

Note: The units are calibrated at the factory such that for proper operation, switch A setpoint must be set higher than switch B setpoint. For accurate setpoint adjustment, mount the switch on a calibration stand, and use a suitable reference such as an OMEGA process gauge (Model PGH or PGJ), or test gauge (Model PGT). Monitor switch with a suitable pilot light or meter. Pressurize the system to the required set-point and turn the adjusting wheel until the switch changes mode. The setpoint has been achieved, raise and lower the pressure to insure that the setpoint is correct. This must be done for both setpoint A and setpoint B.

ADJUSTABLE DEADBAND SWITCH
Remove front cover, which is held in place by two screws. The adjusting wheel labeled A controls the reset point of the switch. The adjusting wheel on labeled B controls the setpoint of the switch. The units are calibrated at the factory such that for proper operation, setpoint B is always higher than reset point A.

For accurate setpoint adjustment, mount the switch on a calibration stand, and use a suitable reference such as an OMEGA process gauge (Model PGH or PGJ), or test gauge (Model PGT). Monitor switch with a suitable pilot light or meter. Pressurize the system to the required setpoint and turn the adjusting wheel until the switch changes mode. The setpoint has been achieved, raise and lower the pressure to insure that the setpoint is correct. This must be done for both setpoint A and setpoint B.
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®
TÉLÉX: 996404 EASYLINK: 62968934 CABLE: OMEGA

Mexico: Tel: (01) 800-826-6342 Fax: (001) 203-359-7807
En Español: (001) 203-359-7803 e-mail: espanol@omega.com
info@omega.com.mx

It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

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

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.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. The remedies of purchaser are limited to the repair or replacement, at OMEGA’s option, of the product(s) and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based.

In no event shall OMEGA be liable for consequential, incidental or special damages.

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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