DENISON HYDRAULICS Pressure Switch

Series PS



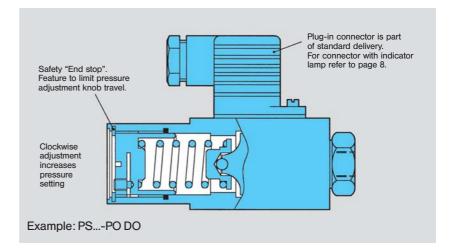
Publ. 12-EN 8050-A, replaces 12-EN 805-B



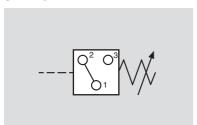
FEATURES, SYMBOL, DESCRIPTION, OPERATION

FEATURES

- Mounting:
- threaded body: internal pipe thread G1/4"
- subplate mounting axial
- subplate 90° mounting by use of a special mounting plate
- panel board mounting
- stackable plates with Cetop configuration for mounting of pressures switches on side (type SO)
- · Pressure setting:
 - adjusted by screwdriver
 - adjusted by knurled knob with scale with or without key-lock
- Pressure ranges:
 - 5 ... 55 bar
 - 10 ... 100 bar
 - 40 ... 240 bar
 - 20 ... 350 bar
- · Adjustment locking:
 - by locking-screw within the adjusting device
 - with a key (type E10 H2)
- · Each pressure switch tested prior to delivery.



SYMBOL



DESCRIPTION

OPERATION

General: A control pin and spring acting on a micro switch actuates the Denison pressure switch. The short switch stroke of 0.5 mm results in minimum wear of the control pin seal. To achieve a long life the internal micro switch contacts are made of special silver material.

Protection: The electrical protection of the entire switch including body and electrical plug-in connector of ISO 4400-type is to IP65. The internal switch element is sealed in accordance with DIN 40050 and fulfils specification IP67.

Hysteresis: At 75% of max. pressure setting, the hysteresis of a standard model is typically 7 ... 12%.

Version with lower hysteresis: To achieve lower hysteresis (3 ... 6%), Denison offers an optional Low-Hysteresis Version at additional costs.

The system pressure from the hydraulic connection is transmitted to the control pin. The diameter of which is matched to the pressure range so that the same spring can be used for the entire range of pressure settings.

The control pin acts against a light plate which actuates the micro switch. The micro switch is deactivated as long as the adjustable spring force is equal to the force generated by the system pressure. When the pre-set system pressure is reached, the plate activates the micro switch. The electrical circuit of the micro switch can be coupled either for closing the contacts or for opening the contacts at switching operation. The switching pressure can be set by turning the screwdriver socket or adjusted with a knurled adjusting knob. The setting value can be seen against the red plastic ring for the version with scales.

TECHNICAL DATA, ORDERING CODE

GENERAL

Design

Spring and piston

Type of mounting

Internal thread, subplate mount or 90° subplate mounting by use of an additional mounting plate

· Method of setting Screwdriver socket or a knurled knob Setting protection Locking screw or key-lock, to E10 H2

 Housing Aluminium Hydraulic connection G1/4"

• Micro switch stroke

0.5 mm, to minimise wear between seal and piston

 Stackable For valve stacking Cetop 03 and 05 (only for version PS...-SO HO)

HYDRAULIC CHARACTERISTICS

· Operating pressure range

low hysteresis version (code L)

p_{max} 300 bar 5 ... 55 bar 200 bar 10 ... 100 bar p_{max} 400 bar 200 bar 40 ... 240 bar p_{max} 500 bar 400 bar p_{max} 500 bar 20 ... 350 bar 400 bar

 Switching accuracy variation < 1 %

- 40°... + 90°C • Ambient temperature range

 Fluid Mineral oil or oil-in-water emulsion

ELECTRIC CHARACTERISTICS

- · Switching element
- Supply voltage
- Contacts
- · Type of protection
- Connection
- · Nominal contact rating
 - Voltage
 - max. resistive load
- inductive load

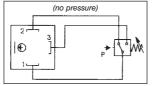
Electromechanical switch (single pole) S.P.S.T.

AC or DC

Special design from hard silver material IP65

Plug-in connector to ISO 4400, PG9

24 VDC 240 VAC 5 A 5 A 4 A 1 A

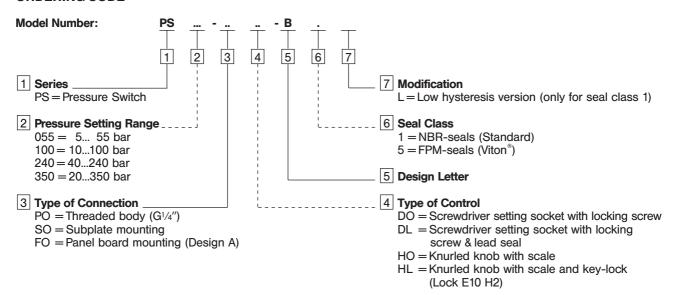


Switch connection pin lay-out

Micro switch standard: Silver (Ag 999) CEE 24; VDE 0630, 50.000 cycles at T 85° C UL 1054/CSA C22.2 N0.55, 6.000 cycles at T 90°C

Switching: to open the switch on reaching set pressure: use pins 1 + 2to close the switch on reaching set pressure: use pins 1 + 3

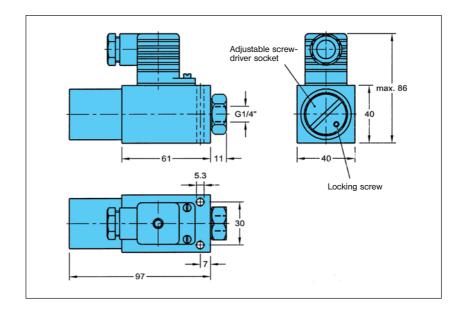
ORDERING CODE



DIMENSIONS - THREADED BODY VERSIONS

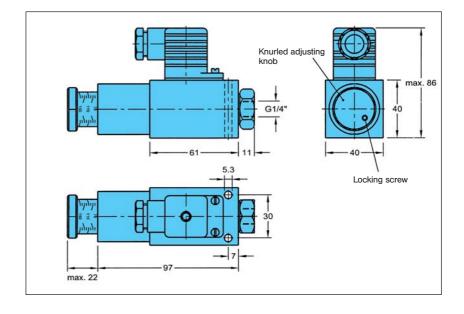
PS ... - PO DO/DL - B Weight: 0.64 kg





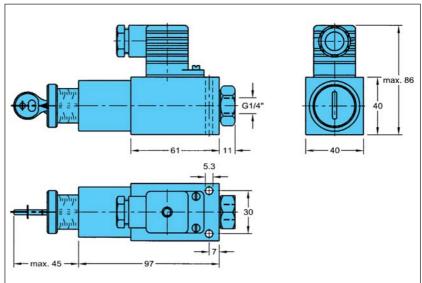
PS ... – PO HO – B Weight: 0.66 kg





PS ... - PO HL - B Weight: 0.67 kg

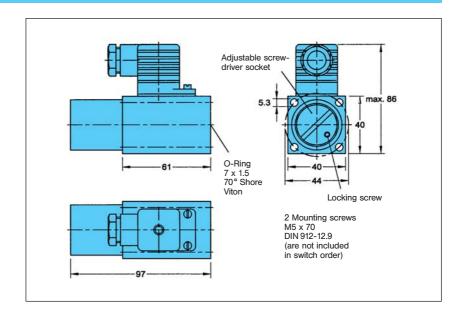




DIMENSIONS - SUBPLATE MOUNTING VERSIONS

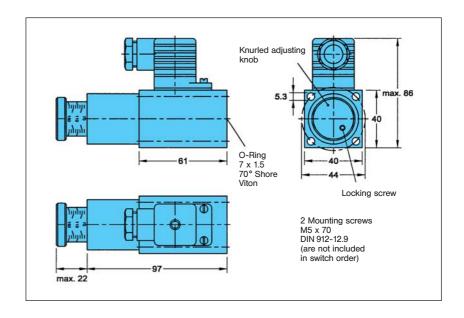
PS ... – SO DO/DL – B Weight: 0.65 kg





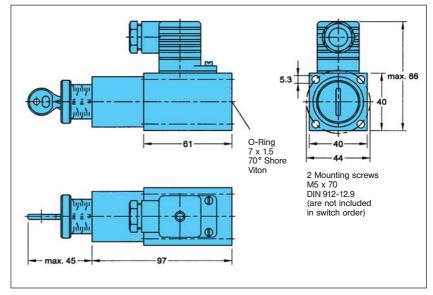
PS ... – SO HO – B Weight: 0.67 kg





PS ... - SO HL - B Weight: 0.68 kg



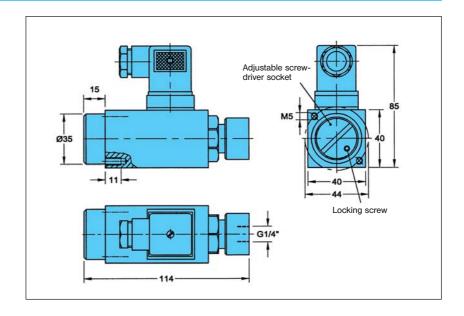


Note: See also page 8 for 90° subplate!

DIMENSIONS - PANEL BOARD MOUNTING VERSIONS

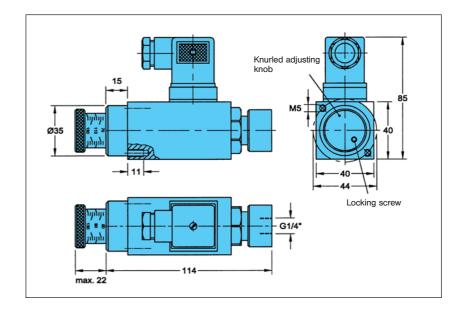
PS ... - FO DO/DL - A Weight: 0.62 kg





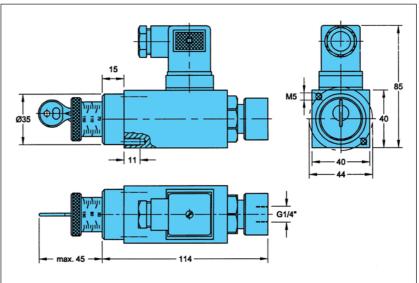
PS ... - FO HO - A Weight: 0.65 kg





PS ... - FO HL - A Weight: 0.66 kg





STACKABLE PLATES

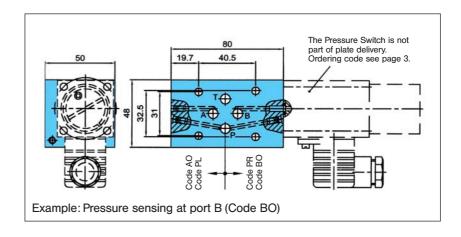
DESCRIPTION

The stackable plates according to ISO 4401 (Cetop 03 and Cetop 05) allow the possibility of direct subplate mounting of the Pressure Switch PS...-SO HO.

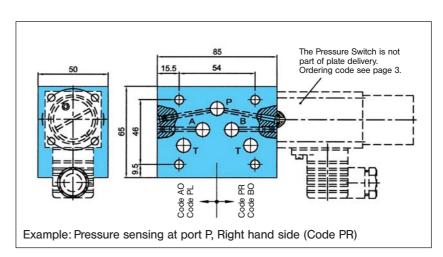
This enables the most compact assembly of Pressure Switch circuits for the direct stack-mounting. The pressure can be sensed in any port (P, A, B) except for the tank port (T), see ordering code.

The Pressure Switch design allows for either right or left hand mounting in the stack. Any unused connections on the pressure switch are plugged at delivery. The actual working connection for the Pressure Switch is marked on the subplate (for instance, connection in A = "A").

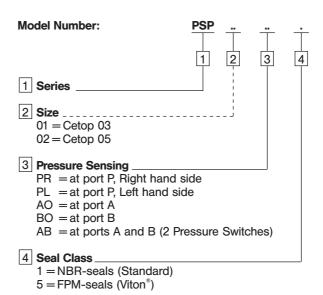
STACKABLE PLATE PSP01 CETOP 03



STACKABLE PLATE PSP02 CETOP 05



ORDERING CODE FOR STACKABLE PLATES

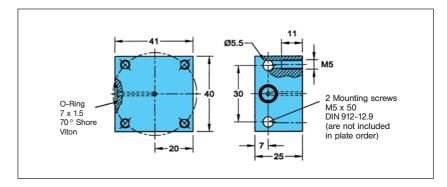


ACCESSORIES

90 ° SUBPLATE FOR MANIFOLD MOUNTING

Order No. 168-00577-8

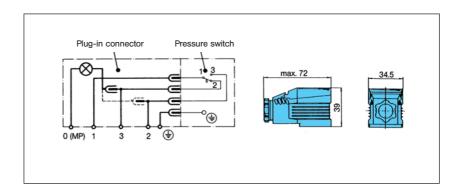




PLUG-IN CONNECTOR WITH INDICATOR LAMP CARTRIDGE

Order No. 168-00575-8 (for DC) 168-00576-8 (for AC)





The indicator lamp cartridge can only be used within the plug-in connector shown above. The lamp can either be plugged into no 2 or no 3 pins. Connection "MP" is situated right at the lamp bulb.

The product described is subject to continual development and the manufacturer reserves the right to change the specifications without notice.