

## 1HP Series

### Aerospace-Grade Pressure Switch – High Pressure Series



#### DESCRIPTION

Honeywell's MICRO SWITCH™ 1HP Series pressure switches are designed for high pressure ranges (150 psi to 5000 psi) for use in aerospace and defense applications. The lightweight, compact pressure switches feature analog outputs to indicate gas or liquid pressure. The design modularity allows for configuration of the switch, facilitating customization to the

precise, demanding requirements of aerospace and defense applications.

Inside the stainless-steel housing is a MICRO SWITCH™ SX Series premium subminiature switch. The SX is qualified to MIL-PFR-8805 and its lower operating force provides application versatility with enhanced precision.

#### FEATURES

- Burst pressure rating of 12000 psi
- High current or logic-level load options
- Configurable with multiple pressure fittings and electrical connectors
- Optional 90° wire harness exit
- Qualified to RTCA DO-160D aerospace specification
- Easily configurable to different pressure set points and differentials
- Compact, lightweight for drop-in replacement or new applications
- Wide selection of pressure ranges, lead wires and contacts available
- MIL-PFR-8805 rated switch mechanism
- Industry's broadest pressure range: 150 psi to 5000 psi (low and medium range switches coming soon)

#### BENEFITS

- High burst-to-operating pressure ratio
- Honeywell's proprietary MICRO SWITCH™ technology provides enhanced accuracy
- Expansive customized product delivered from standard catalog listings in shorter lead times
- Compatible with standard mil/aero medias
- Unique design delivers higher set point precision and improves performance over temperature

#### POTENTIAL APPLICATIONS

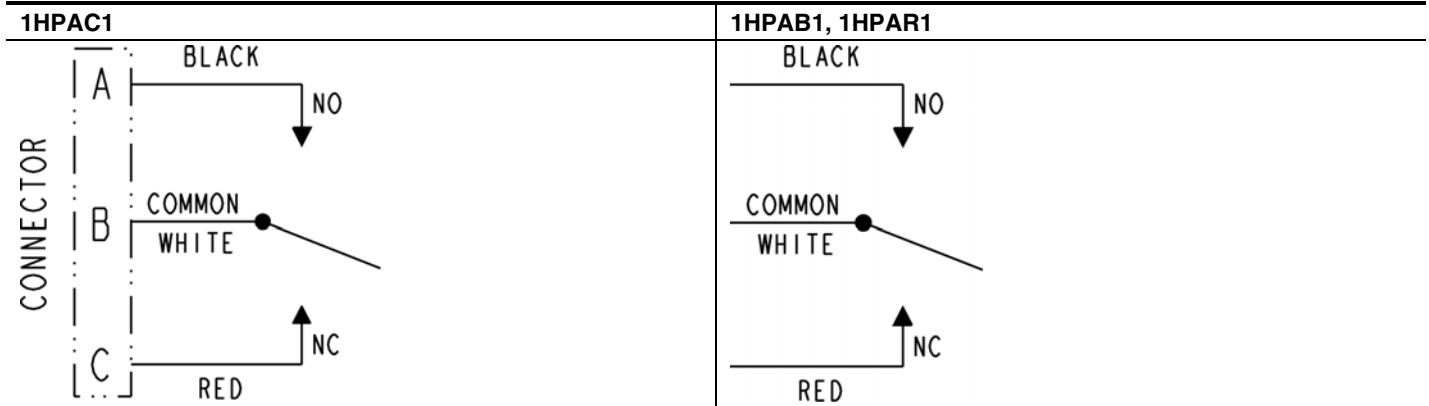
- Aerospace systems: engines, fuel pressure, and hydraulic systems
- Military ground vehicles
- Ordnance and munitions release systems
- Military maritime systems

# 1HP Series

## SPECIFICATIONS

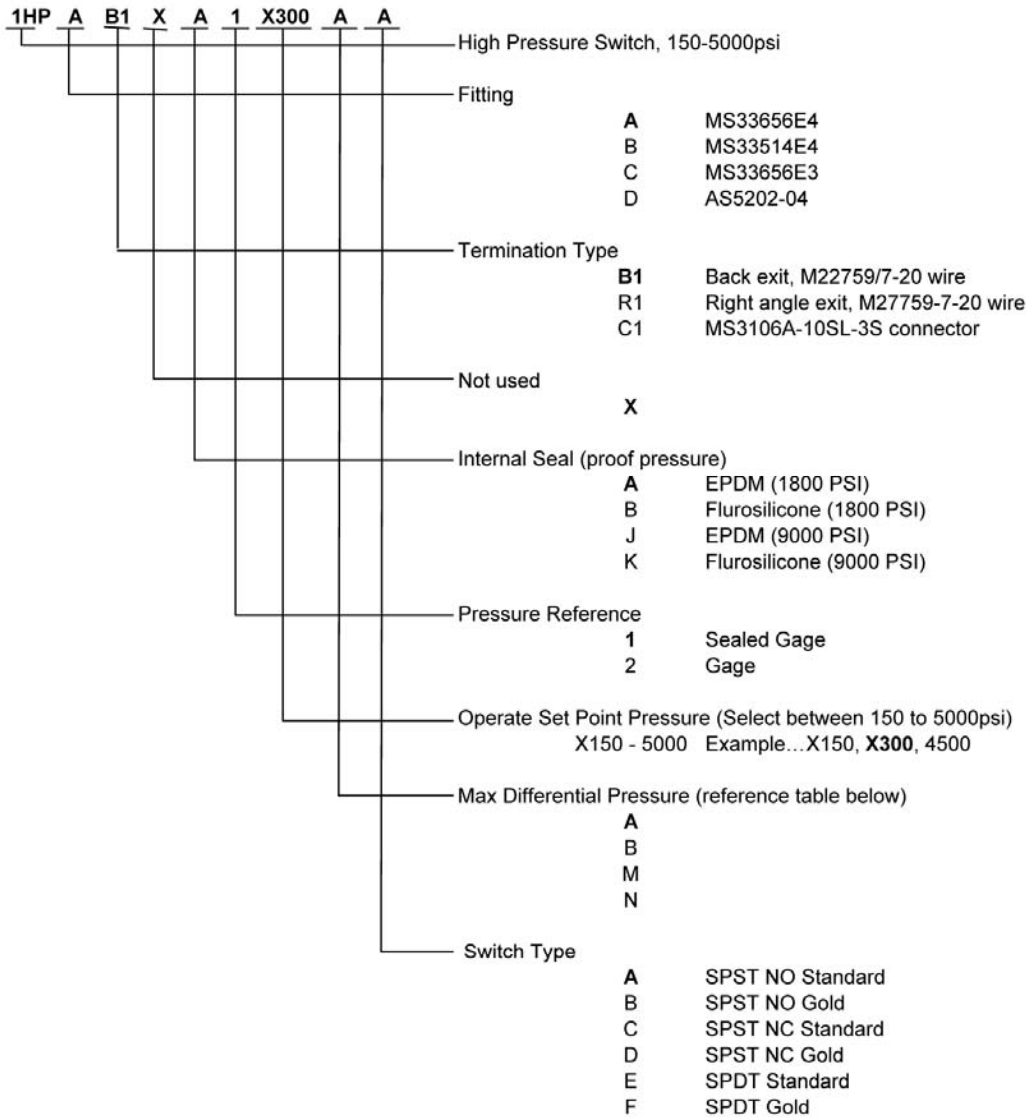
Characteristic	Parameter
Resistive load	4A
Inductive load	2A
Set point pressure	150 psi to 5000 psi
Burst pressure	Up to 12000 psi
Proof pressure	Up to 9000 psi max.
Operating pressure	Up to 6000 psi max.
Excitation	28 Vdc
Insulation resistance	100 mOhm @ 500 Vdc for 5 seconds
Dielectric resistance	500 Vac RMS @ 60 Hz for one minute, 1 mA leakage, max.
Contact material	Silver, gold
Switch configuration	SPST, SPDT
Pressure reference	Sealed gage, gage
Operating cycles	100 K minimum
Operating temperature	-55 °C to 70 °C [-67 °F to 158 °F]
Storage temperature	-55 °C to 85 °C [-67 °F to 185 °F]
Media compatibility	Suitable for air, fuel, water, oil, Skydrol™

## WIRING DIAGRAMS



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## ORDERING INFORMATION



Operate Set Point Pressure	Max Differential from Set Point			
	A	B	M	N
X150 - X499	+65	+90	-65	-90
X500 - X999	+95	+120	-95	-120
1000 - 1250	+120	+180	-120	-180
1251-2000	+170	+240	-170	-240
2001-3000	+240	+310	-240	-310
3001-4000	+300	+360	-300	-360
4001-5000	+350	+400	-350	-400

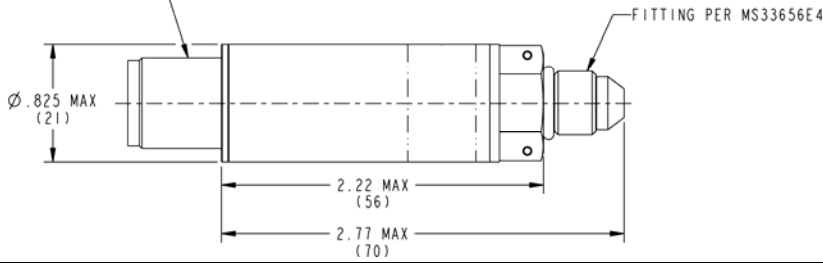
+ indicates an upscale differential trip point ("operating setpoint" + "differential value" = "max upscale trip point")  
 - indicates a downscale differential trip point ("operating setpoint" - "differential value" = "max downscale trip point")

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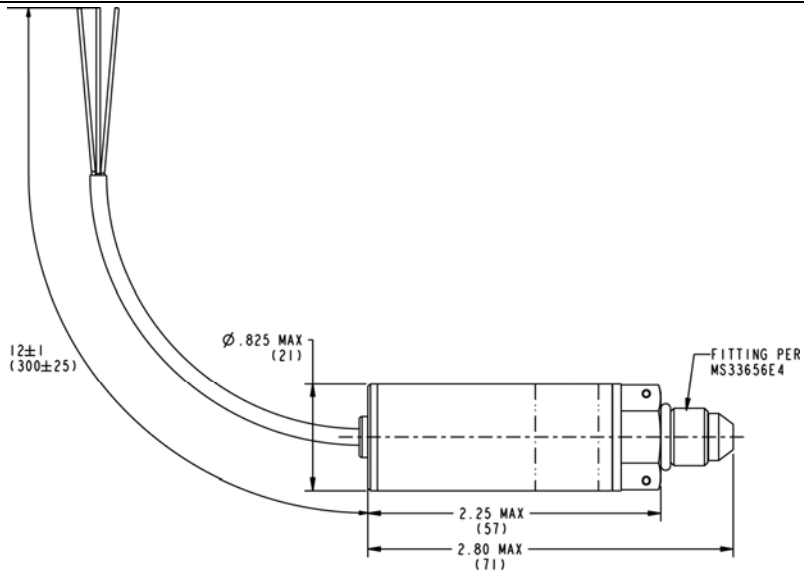
## DIMENSIONS in(mm)

### 1HPAC1

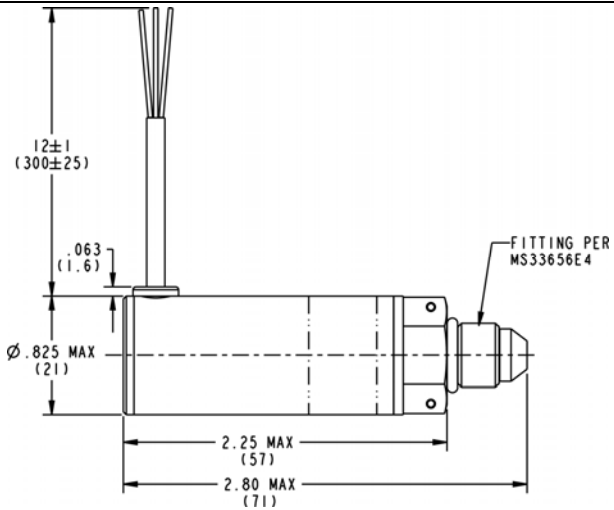
CONNECTOR TO MATE WITH  
MS3106A-10SL-3S



### 1HPAB1



### 1HPAR1



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## WARNING

### PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

## WARNING

### MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

### SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

**E-mail:** [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

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