Pneumatic Division
Richland, Michigan 49083
269-629-5000

Installation & Service Instructions
V759P
HA Spool Sensing Valve
ISSUED: Sept 1, 2021
Supersedes: None
Doc.# V759P, EN# 210567 Rev. -

⚠WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- **Disconnect electrical supply (when necessary) before installation, servicing, or conversion.**
- **Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.**
- **Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.**
- **Medium must be moisture-free if ambient temperature is below freezing.**
- **Service according to procedures listed in these instructions.**
- **Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.**
- **After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.**
- **Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.**

⚠WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.

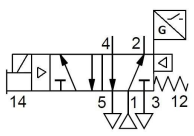
Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the **Pneumatic Division Safety Guide** at: www.parker.com/safety

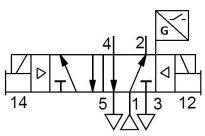
Introduction

Follow these instructions when installing, operating, or servicing the product.

Symbols



Single Solenoid



Double Solenoid

⚠CAUTION: It is recommended that double solenoid be mounted so that the axis of the valve spool is in the horizontal plane.

Lubrication

Factory Pre-lubed. If lubricating in service, use Parker F442 oil or equivalent paraffin based mineral oil with 150 to 200 SSU viscosity @100°F.

⚠CAUTION: Do not use oils that are synthetic, reconstituted, have an alcohol content or a detergent additive.

⚠ Application Limits

These products are intended for use in general purpose compressed air systems only. This product is not a certified safety component to The Machinery Directive 2006/42 EC. However, with proper integration, the HA Spool Sensing Valve is suitable for use in safety circuits followings safety related parts of control systems (SRP/CS) to EN ISO 13849-1 Standards. It has been developed and manufactured in accordance with the basic well tried and trusted safety principles as outlined in EN ISO 13849-2. When used in high categories, the sensor signal from the valve must be evaluated by the control system to achieve high diagnostic coverage and proper fault detection.

Operating Pressure Range:

Maximum: 145 PSIG (1000 kPa)
Minimum: See Chart

Operator / Function	Internal Pilot	Min. PSIG (kPa)
1	Single Solenoid - 2-Pos	25 (173)
2	Double Solenoid - 2-Pos	
E	Single Solenoid - 2-Pos Air Return / Spring Assist	30 (207)
	External Pilot*	
All	All	Vacuum

* External Pilot Pressure / Remote Pilot Signal - 45 to 145 PSIG (310 to 1000 kPa).

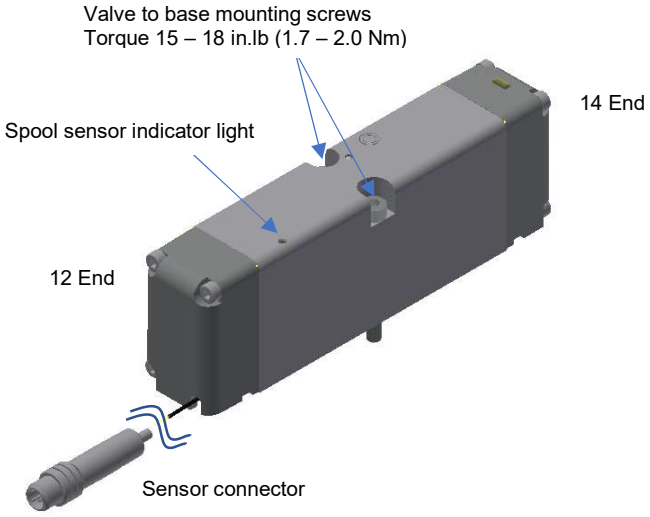
Ambient Temperature Range: -15°C to 49°C (5°F to 120°F)
Voltage Range: Rated Voltage +10%, -15%
Media: Dry air or inert gas filtered to 40µ

⚠ **CAUTION: This valve contains solid state components that can be damaged by transient voltage spikes, over-voltage or high temperature. To protect against premature solenoid failure, please read and adhere to the following:**

If this solenoid operated valve is used in a circuit with other inductive loads, the solenoid should be electrically protected with a voltage suppression device (e.g. transient voltage suppressor or varistor) that has a minimum rating of 1.6 times the rated voltage of the solenoid valve and sufficient capacity to dissipate the energy of other inductive loads.

Installation

Please refer to Installation & Service Instructions V450P for general HA spool valve installation instructions. This instruction sheet is to provide installation information focus on spool sensing feature of the valve.



Above shows a single solenoid spool sensing HA valve with M8 connector for position sensor. Please follow the torque specifications when mounting the valve to base.

⚠ **CAUTION: Do not pull the sensor connector cord with excess force during handling and installation of the valve. Doing so can cause damage to the sensor and disable the spool sensing function!**

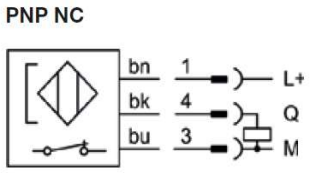
Sensor Specifications

For full specification, please refer to Parker P8S Series data sheet which is available on Parker website. Below is a brief specification for ease of installation.

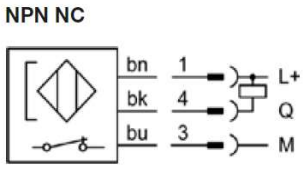
Output Type	PNP (Option 8P & 2P) NPN (Option 8N)
Output Function	Signal ON when Port 1 and 2 are connected Signal OFF when Port 1 and 4 are connected
Supply Voltage	10 to 30 VDC
Power Consumption	8mA (without load)
Voltage Drop	<= 2.5V
Continuous current	<= 100 mA
Short Circuit Protection	Yes
Reverse Polarity protection	Yes
Power-up pulse protection	Yes
International Standard	CE
EMC	According to EN60947-5-2
Housing Material	Plastic
Screw Material	Stainless steel
Cable Material	PUR (Polyurethane)
Indication LED color	Yellow
Connector	M8 (Option 8P & 8N) M12 (Option 2P)
Cord Length	0.3 meters

Connection Type and Diagram

Option 8P or 2P

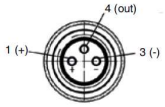


Option 8N

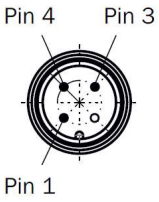


Pin Assignment

M8
(Option 8P & 8N)



M12
(Option 2P)



Serviceability

⚠ **WARNING: This product is not field serviceable. For troubleshooting, please consult the factory. Unauthorized repair can compromise the intended function!**

For all Instruction Sheets, go to www.parker.com/pneumatic

V450P - H Series HA 26mm & HB 18mm ISO 15407 Valve Service
V452P - H Series HA & HB ISO 15407-2 Sandwich Flow Controls
V454P - H Series HA & HB Sandwich Regulators
V467P - H Series H1 Sandwich Regulators
V468P - H Series H1, H2 & H3, ISO 5599-1, 5599-2 Sandwich Flow Controls
V470P - H Series H1, H2 & H3, ISO 5599-1, 5599-2 Valve Service
V471P - H Series H2 & H3 Sandwich Regulators
V751P - H Series, Terminal Block
V752P - H Series, P2M Node
V753P - H Series, Turck Network
V754P - H Series, H Series Network
V755P - H Series, Multi PIn
V756P - H Series, Manifold Installation
V757P - H Series, P2H IO-Link Module
V758P - H Series, PXM Installation