P8S Position Sensor order codes

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[Related FAQ: Parker Limit and Home Sensor Compatibility]

As of January 8, 2019 position and home sensors for the following series will have a new global part number starting with P8SAXXXXX:

OSPE Series
HMR Series
ETH Series
HD Series
402 and 403 XE's using the old style limit sensors

Previous Parker type	Replacement Part Number	Sensor type
P8S-GECNX	P8SAGECNX	Reed, 2 Wire, NC
P8S-GEFFX	P8SAGEFFX	Reed, 2 Wire, NC
P8S-GEFRX	P8SAGEFRX1	Reed, 2 Wire, NC
P8S-GEFRX1	P8SAGEFRX1	Reed, 2 Wire, NC
P8S-GMCHX	P8SAGMCHX	NPN NC
P8S-GMFAX	P8SAGMFAX	NPN NC
P8S-GMFDX	P8SAGMFDX	NPN NC
P8S-GNCHX	P8SAGNCHX	NPN NO
P8S-GNFAX	P8SAGNFAX	NPN NO
P8S-GNFDX	P8SAGNFDX	NPN NO

P8S-GPCHX	**P8SAGPCHX**	**PNP NO**
P8S-GPFAX	**P8SAGPFAX**	**PNP NO**
P8S-GPFDX	**P8SAGPFDX**	**PNP NO**
P8S-GQCHX	**P8SAGQCHX**	**PNP NC**
P8S-GQFAX	**P8SAGQFAX**	**PNP NC**
P8S-GQFDX	**P8SAGQFDX**	**PNP NC**
P8S-GRCHX	**P8SAGRCHX**	**Reed, 2 Wire, NO**
P8S-GRFAX	**P8SAGRFAX**	**Reed, 2 Wire, NO**
P8S-GRFDX	**P8SAGRFDX2**	**Reed, 2 Wire, NO**
P8S-GRFDX2	**P8SAGRFDX2**	**Reed, 2 Wire, NO**
P8S-GSCHX	**P8SAGSCHX**	**Reed, 3 Wire, NO**

Change Impact
Differences:
· The next generation P8SA sensors differ in length than the current sensor. The new reed sensors with supply
voltage (VAC/DC) 5…30 and all solid state sensors are shorter (29.5mm vs.31.5mm), while all other reed sensors
are 1mm larger than the current sensor (32.5mm vs 31.5mm). Dimensional drawings of new sensors are below.

· The next generation has an improved fastening method. Instead of using an oval head screw, the next
generation sensor uses an eccentric screw fixed to the sensor housing. Thanks to the retaining ribs on the body,
the sensor holds its position even before the screw is tightened, ensuring that it does not fall out. In addition,
the rugged fixing screw holds the sensor in the desired position, even when subjected to shocks and vibrations.

· For servicing, the new sensors can be replaced without the need to remove the end caps from the cylinder.

· The new PS8A sensor has an improved M8R knurled nut as its connector compared to the current sensor's M8
snap-in connector

· The new sensor has a wider operating temperature range (-30 to +80C) than the current sensor (-25 to +75C).

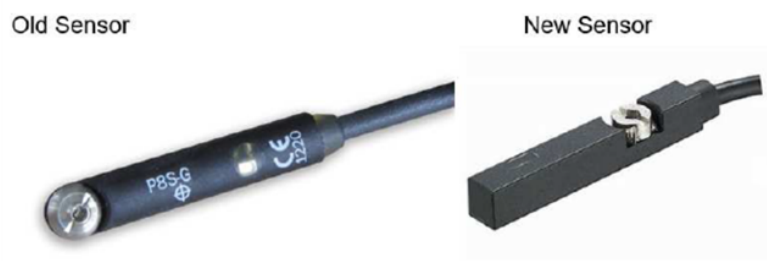
· All new P8SA sensors will be delivered with a new plastic adaptor to fit in S-Dovetail grooves.

Similarities:
· Sensor technology, wiring capabilities, connector pin-outs, and electrical outputs are identical between the
current and next generation sensors

· The current and next generation sensors are both RoHS and REACH compliant



image of adapter for S-slot dovetail grooves



The following linear stages will be converting to the following P8S mini-sensors

- LCR30 – All models
- 401XE, 402XE & 403XE – All models using home sensor options HA, HB, HC & HD and/or limit sensor options LA, LB, LC & LD
- Any modified or custom linear stage based off the LCR30, 401XE, 402XE, or 403XE

Current Parker type	Replacement Part Number	Sensor type
P8S-MMFLY	**P8SAMMFAZ**	**NPN NC**
P8S-MMCHY	**P8SAMMCHZ**	**NPN NC**
P8S-MQCHY	**P8SAMQCHZ**	**PNP NC**
P8S-MQFLY	**P8SAMQFAZ**	**PNP NC**
P8S-MPCHY	**P8SAMPCHZ**	**PNP NO**
P8S-MNCHY	**P8SAMNCHZ**	**NPN NO**
P8S-MPFLY	**P8SAMPFAZ**	**PNP NO**
P8S-MNFLY	**P8SAMNFAZ**	**NPN NO**

Change Impact

Differences:

- The next generation P8S mini-sensors are shorter in length than the current sensor: 20mm vs. 26mm
- The next generation has an improved fastening method. Instead of using a clamp screw, the next generation mini-sensor uses a set screw, which will lock the body of the sensor into the slot.
- A different tool is required to fasten the mini-sensor. The current mini-sensor uses a flat blade screw driver, while the new mini-sensor uses a 1.3mm hex wrench.
- There is a 2mm sensing position difference between the two sensors. However, the sensor is fully adjustable in the sensor slot, so customers can still obtain the same position as the current sensor.

Similarities:

- Sensor technology, wiring capabilities, connector pin-outs, and electrical outputs are identical between the current and next generation mini-sensors
- The current and next generation mini-sensors are both RoHS and REACH compliant



For connectorized P8S sensors, the extension cables are:

PART#	Description
003-2918-01	Extension Cable, 5m cable, M8 connector, flying lead, PVC jacket
003-2918-02	Extension Cable, 10m cable, M8 connector, flying lead, PVC jacket
003-2918-03	Extension Cable, 20m cable, M8 connector, flying lead, PVC jacket

003-2918.pdf