

CONVERTING OLD A-SERIES PART NUMBERS TO THE NEW A-SERIES PART NUMBERS

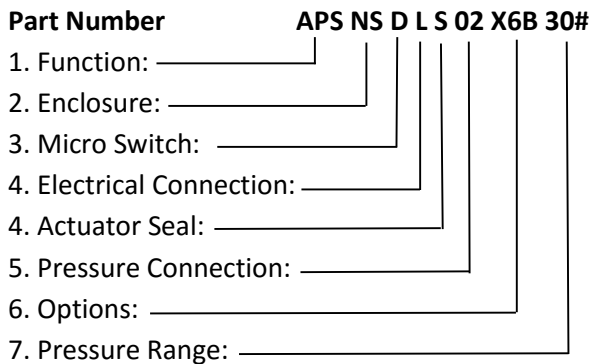
PIP #: SW-PI-77

Applicable to:
A-Series
Pressure
Switches

With the release of the New A-series product family, Ashcroft has discontinued the old A-series product family and part numbers. This guide is intended to easily convert the old part numbers to the new part numbers. The new A-series has more configurations and ranges available than the old A-series. There now may be more than one possible conversion or there is a feature that could be added to make the switch better for its intended application. It is best practice to break down the old part number to its specifications and then build a new part number based on the application requirements.

1. Break down the old part number to its function, enclosure, micro switch, electrical connection, actuator seal, pressure connection, options and range.
2. Review the application and electrical requirements.
3. Review Old A-series to New A-series conversion table and build a new A-series part number.

Old A-series Product Coding:



- 1. Function:**
 APS – A-series pressure switch, single set point, fixed dead band, factory set only, not field adjustable
 APA – A-series pressure switch, single set point, fixed dead band, field adjustable

- 2. Enclosure:**
 RB – Watertight Brass body with polycarbonate switch seal
 RS – Watertight 304 Stainless Steel Body with polycarbonate switch seal
 NS - Watertight 304 Stainless Steel Body with glass to metal switch seal
 N7 – Explosion Proof 304 Stainless Steel Body with glass to metal switch seal

3. Micro Switch:

D – General Purpose 5A @ 125/250 VAC, 5A @ 28 VDC resistive, 3A @ 28 VDC inductive
M – Gold Contacts 1A @125 VAC, 1A @ 28 VDC resistive, 0.5A @ 28 VDC inductive

4. Electrical Connection:

L – Wire leads, 3-18 AWG PVC insulated wires 12" length
S – Screw terminals, 3 - #6 binding head screws
T – Spade terminals, 3 - 0.187" male spade
C – ½ NPT male conduit connection with 3-18 AWG PVC insulated wires 12" length
H – Micro DIN Connector – Watertight DIN 43650 cable socket

5. Actuator Seal:

B – Buna Diaphragm and O-ring
V – Viton Diaphragm and O-ring
T – Teflon Diaphragm and O-ring
S – 316 Stainless steel welded Diaphragm
H – 304 Stainless steel piston with Viton O-ring

6. Pressure Connection:

01 – 1/8 NPT Male
02 – 1/4 NPT Male
03 – 1/8 NPT Female
04 – 1/4 NPT Female
05 – 7/16-20 SAE Male
06 – VCR – Fixed
07 – VCO – Fixed
09 – 0.75" Tri-clamp connection

7. Options:

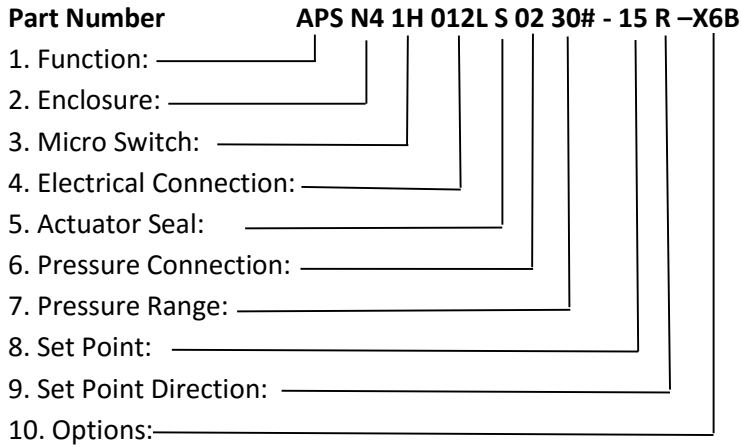
XC4 – Individual certified calibration chart
XFS – Factory Set (APA models only)
XFP – Fungus proofing
XLE – Long Leads – 6' standard, other lengths can be called out
XMD – Metric range on Label
XMQ – Positive Material Identification
XNC – 2 wire leads - wired for normally closed operation
XNO - 2 wire leads - wired for normally open operation
XNH – Stainless Steel Tag
XNN – Paper Tag
X3A – 3A approval for 1.5" or 2.0" Tri-clover connection
X6B – Cleaned for Oxygen service

Notes: The X character will only appear before the first option; additional options will just be the two characters. Example: XFSLENH. If the switch is mounted to a seal the seal fill fluid is also listed as an X option.

8. Pressure Range:

- 30 IMV (Brass body only)
- 30 IMV/15# (Stainless steel body only)
- 15# (Brass body only)
- 30#
- 60#
- 100#
- 200#
- 400#
- 600#
- 1000#
- 2000#

New A-series Product Coding:



1. Function:

- APS – A-series pressure switch, single set point, fixed dead band, factory set only, not field adjustable
- APA – A-series pressure switch, single set point, fixed dead band, field adjustable

2. Enclosure:

- N4 – Watertight 316 Stainless Steel Body
- N7 – Explosion Proof 316 Stainless Steel Body, (requires electrical connection C)

3. Micro Switch:

First Character:

- 1 – Single switch – SPDT
- 2 – Dual switch - DPDT

Second Character:

- G – Gold Contact – 0.1 A @ 125 VAC. 0.1 A @ 30 VDC
- H – Higher Current - 5A @ 125/250 VAC, 5A @ 28 VDC resistive, 3A @ 28 VDC inductive
- L – Higher Current Gold Contacts - 1A @125 VAC, 1A @ 28 VDC resistive, 0.5A @ 28 VDC Inductive
- P – General Purpose – 3A @ 125/250 VAC, 2A @30 VDC

4. Electrical Connection:

- 012C – ½ NPT male conduit connection with 3-18 AWG PVC insulated wires 12” length
 - 000H – Micro DIN Connector – Watertight DIN 43650 cable socket without mating connector
 - 00MH – Micro DIN Connector – Watertight DIN 43650 cable socket with mating connector
 - 012L – Wire leads, 3-18 AWG PVC insulated wires 12” length
 - 000N – Nonstandard, customer specified see # Variation
 - 000T – Spade terminals, 3 - 0.187” male spade
 - 012G– M20 x 1.5 male conduit connection with 18 AWG wire
 - 012K– M20 x 1.5 male conduit connection with 4 conductor jacketed cable with 18 AWG wires
 - 012J– ½ NPT male conduit connection with 4 conductor jacketed cable with 18 AWG wires
- Note: The three numeric digits represent the length of wire in inches

5. Actuator Seal:

- B – 316 Stainless Steel piston and Buna O-ring
- V – 316 Stainless Steel piston and Viton O-ring
- S – 316 Stainless steel welded Diaphragm
- N – 316 SS piston & HNBR O-ring

6. Pressure Connection:

- 01 – 1/8 NPT Male
- 02 – 1/4 NPT Male
- 03 – 1/8 NPT Female
- 04 – 1/2 NPT Male
- 05 – 7/16-20 SAE Male
- 06 – VCR – Fixed
- 07 – VCO – Fixed
- 08 – 7/16-20 SAE Female
- 12 – G 1/4 A (Type E Stud End)
- 13 – G 1/4 B
- 25 – 1/4 NPT Female
- 46 – 9/16-18 SAE Female

- 50 – 1/2 NPT Female
- 75 – 0.75” Tri-clamp connection
- 15 – 1.5” Tri-clover connection (includes 3A Approval)
- 20 – 2.0” Tri-clover connection (includes 3A Approval)
- 76 – 7/16-20 SAE w/37° Flare End

7. Pressure Range:

Actuator	PSI	Bar	kPa	Kg/cm ²
S	-15/15#	-1/1	-100/100	-1/1
S	30#	2	200	2
S	60#	4	400	4
S, N	100#	7	700	7
B, S, V, N	200#	14	1400	14
B, V, N	500#	35	3500	35
B, V, N	1000#	70	7000	70
B, V, N	2000#	140	14000	140
B, V, N	5000#	350	35000	350
B, V, N	7500#	500	50000	500
B, V, N	10000#	700	70000	700
B, V, N	15000#	1000	100000	1000

8. Set Point:

5 characters maximum representing set point of the switch in the same units as the range of the switch. For set points in Vacuum specify as “-” “pressure.

9. Set Point Direction:

R – Rising Pressure (Increasing Pressure)

D – Decreasing Pressure

Note: If no set point is required on an APA switch use either “NSR” or “NSD”. If the direction is not known use “NSR” as the default.

10. Options:

XC4 – Individual certified calibration chart

XBP – Mounting Bracket

XFP – Fungus proofing

XMQ – Positive Material Identification (75, 15 & 20 process connections only)

XNC – 2 wire leads - wired for normally closed operation

XNO – 2 wire leads - wired for normally open operation

XNH – Stainless Steel Tag

XNN – Paper Tag

X6B – Cleaned for Oxygen service

Notes: The X character will only appear before the first option; additional options will just be the two characters. Example: XFSLENH. If the switch is mounted to a diaphragm seal the seal fill fluid is also listed as an X option.

Old A-series to New A-series Conversion Table

	Old A-series	New A-series	Comments
Function	APA	APA	
	APS	APS	
Enclosure	RB	N4	
	RS	N4	
	NS	N4	
	N7	N7	
Switch	D	1H or 1P	Check electrical requirement
	M	1L or 1G	Check electrical requirement
Electrical Connection	L	012L	
	T	000T	
	C	012C	
	H	000H or 00MH	Use 00MH if the mating DIN Connector is needed
	S		No longer available
Actuator	B	S	Range ≤100#
Seal	B	B	Range ≥200#
	V	S	Range ≤100#
	V	V	Range ≥200#
	T	S	Range ≤100#
	T	B or V	Range ≥200# , check media compatability
	S	S	Range ≤200#
	S	B or V	Range ≥200# , check media compatability
	H	V	
Process Connection	01	01	
	02	02	
	03	03	
	04	25	
	05	05	
	06	06	
	07	07	
	09	75	
Range	30 IMV	-15/15#	
	30 IMV/15#	-15/15#	
	15#	-15/15#	
	30#	30#	
	60#	60#	
	100#	100#	
	200#	200#	
	400#	500#	
	600#	500# or 1000#	Depending on Set Point
	1000#	1000#	
2000#	2000#		
Options	C4	C4	
	FS		Add set point to part number
	FP	FP	
	LE		Add long length to Electrical Connection (Ex. 072L)
	MD		Not required order in Metric Range
	MQ	MQ	
	NC	NC	
	NO	NO	
	NH	NH	
	NN	NN	
3A		Not required order 75, 15 or 20 connection	

Examples of Old Part numbers converted to new part numbers

Old A-series Part Number	New A-series Part Number
APSRBDLB0215# Set at 5 PSI Increasing	APSN41H012LS02-15/15#-5R or APSN41P012LS02-15/15#-5R
APARBMTT01XFS200# Set at 80 PSI Decreasing	APAN41L000TS01200#-80D or APAN41G000TS01200#-80D
APSRSDHS04100# Set at 75 PSI Increasing	APAN41H000HS25100#-75R or APAN41P000HS25100#-75R
APANSM LH05XFS6B1000# Set at 675 Decreasing	APAN41L012LV051000#-675D-X6B or APAN41G012LV051000#-675D-X6B
APSN7DCS09XMQ60# Set at 40 PSI Increasing	APSN71H012CS7560#-40R-XMQ or APSN71P012CS7560#-40R-XMQ
APAN7MCH021000#	APAN71L012CV021000#-NSR or APAN71G012CV021000#-NSR

Notes:

1. Selection of the Micro switch should be based on the electrical requirements of the application. If they are not known use the H micro switch in place of a D micro switch or an L micro switch in place of a M micro switch.
2. Always verify the compatibility of the actuator seal material and the application media.
3. The electrical connection “S” screw terminal has been discontinued. Choose one of the other electrical connection choices. The micro DIN connector does have screw terminals for wire termination inside of the connector plug housing.
4. Make sure the set point is called out in the part number if using an APS switch.