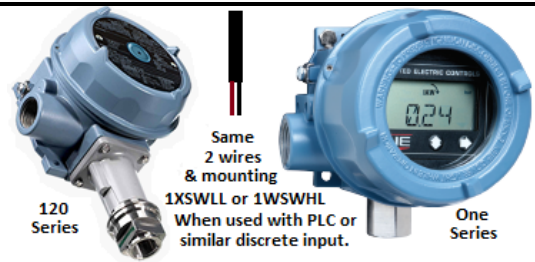


TECHNICAL DOCUMENT

Use this document as a guide in upgrading from an United Electric Controls Type J120 or H121 electromechanical pressure switch to the "One Series" solid-state switch when interfacing with a logic solver such as a PLC (programmable logic controller) or DCS (distributed control system).*

Advantages

- Easily performed. Use same mounting and same 2 wires.
- Very high solid-state reliability vs. electromechanical.
- IAW "I Am Working" self-diagnostics detects faults before they become a process monitoring problem.
- LCD Display: Local indication of pressure and IAW.
- Set Point adjustable across full range.
- Dead Band adjustable across full range.
- Cost effective vs. a transmitter.



1. Choose the "One Series" model need for the logic solver (PLC / DCS) input voltage.

7.8 to 50 VDC	70 to 240 VAC / VDC
Model: 1XSWLL	Model: 1XSWHL

2. Select the needed "One Series" sensor using tables below (P06...P20).

For example, the part number required for use with a 120 VAC logic solver having a 300 PSI range is 1XSWHLP15.

3. Verify the "One Series" 316L Wetted Material, 1/2" NPT Female Pressure Connection, Over Range and other relevant specifications are suitable for the application.

J120 / H121 Part Number		Set Point Range	Over Range	J120 H121 Conn.	ONE SERIES Sensor
J120-126	H121-126	Vacuum	80 "wc	1/4" NPT Female	P06
J120-134	H121-134	Vac to 20 psi	20 psi		P06
J120-137	H121-137	80 "wc	80 "wc		P10
J120-144	H121-144	20 psi	20 psi		P12
	H121-146	30 psi	30 psi		P12
J120-152		50 psi	50 psi		P13
J120-156	H121-156	100 psi	100 psi		P14
J120-164	H121-164	200 psi	200 psi		P15
J120-S126B	H121-S126B	Vacuum	80 "wc	1/2" NPT Female	P06
J120-S134B	H121-S134B	Vac to 20 psi	20 psi		P06
J120-S137B	H121-S137B	80 "wc	80 "wc		P10
J120-S144B	H121-S144B	20 psi	20 psi		P12
	H121-S146B	30 psi	30 psi		P12
J120-S152B		50 psi	50 psi		P13
J120-S156B	H121-S156B	100 psi	100 psi		P14
J120-S164B	H121-S164B	200 psi	200 psi		P15
J120-171	J120-171	20 psi	500 psi	1/2" NPT Female	P12**
J120-172	J120-172	50 psi	500 psi		P13**
J120-173	J120-173	100 psi	500 psi		P14**
J120-174	J120-174	200 psi	500 psi		P15

J120 / H121 Part Number		Set Point Range	Over Range	J120 H121 Conn.	ONE SERIES Sensor
J120-183	J120-483	20 psi	500 psi	1/2" NPT Female	P12**
J120-184	J120-484	50 psi	500 psi		P13**
J120-185	J120-485	100 psi	500 psi		P14**
J120-186	J120-486	200 psi	500 psi		P15
J120-188	J120-488	1000 psi	2000 psi		P17
J120-189	J120-489	3500 psi	4000 psi		P19
J120-190	J120-490	30 psi	1500 psi	1/2" NPT Female	P13**
J120-191	J120-491	100 psi	1500 psi		P14**
J120-192	J120-492	300 psi	1500 psi		P15**
J120-193	J120-493	500 psi	1500 psi		P16**
J120-194	J120-494	1700 psi	2000 psi	P18	
J120-270	H121-270	200 psi	200 psi	1/4" NPT Female	P15
J120-274	H121-274	300 psi	300 psi	1/4" NPT Female	P15
J120-356		100 psi	100 psi	1/4" NPT Female	P14
J120-358	H121-358	200 psi	200 psi		P15
J120-361	H121-361	300 psi	300 psi		P15
J120-376	H121-376	500 psi	500 psi		P16
J120-450	H121-450	Vacuum	80"wc	1/4" NPT Female	P06
J120-451	J120-451	80"wc	80"wc		P10
J120-452	H121-452	Vac to 20 psi	20 psi		P06
J120-453	H121-453	20 psi	20 psi		P12
J120-454	H121-454	30 psi	30 psi		P12

"ONE SERIES" SENSOR RANGES

	Set Range	Over Range		Set Range	Over Range		Set Range	Over Range		Set Range	Over Range		Set Range	Over Range			
P06	-14.7 to 30 psi	60 psi	P11	0-15 psi	30 psi	P13	0-50 psi	100 psi	P15	0-300 psi	600 psi	P17	0-1000 psi	2000 psi	P19	0-4500 psi	9000 psi
P08	-14.7 to 100 psi	200 psi	P12	0-30 psi	60 psi	P14	0-100 psi	200 psi	P16	0-500 psi	1000 psi	P18	0-3000 psi	6000 psi	P20	0-6000 psi	12000 psi
P10	0-5 psi	10 psi															

** Verify the "One Series" Over Range pressure is suitable for the application.



3317 Gilmore Industrial Blvd.
Louisville, KY 40213 USA
T: (502) 966-3134 F: (502) 966-3135
sales@ArcoEngineering.com

FOR ADDITIONAL INFORMATION, PRODUCT DATASHEETS,
INSTALLATION AND OPERATION MANUALS,
DRAWINGS AND DEMONSTRATION VIDEO, VISIT:
www.ArcoEngineering.com

*Disclaimer: The contents of this document are provided "AS IS". This information could contain technical inaccuracies, typographical errors and out-of-date information. This document may be updated or changed without notice at any time. Use of the information is therefore at your own risk. In no event shall ARCO Engineering, Inc. be liable for special, indirect, incidental or consequential damages resulting from or related to the use of this document. (rev4) © 2018 ARCO Engineering, Inc.