

836E Solid-State Pressure Sensors to the 836P Solid-State Pressure Sensors



Why Upgrade or Migrate

While the Allen-Bradley 836E Solid-State Pressure Sensor has been a valuable part of our portfolio, this product will no longer be available for sale after December 2016*. Now is the time to migrate to the 836P Solid-State Pressure Sensor.

Capable of measuring pressure of liquid or gases, the new 836P pressure sensors are a more cost-effective solution than the previous family. These devices are available in display and non-display models and feature higher pressure ranges -1...689 bar (-14.5 to 10,000 psi) and IO-Link 1.1 communications protocol (display model only).

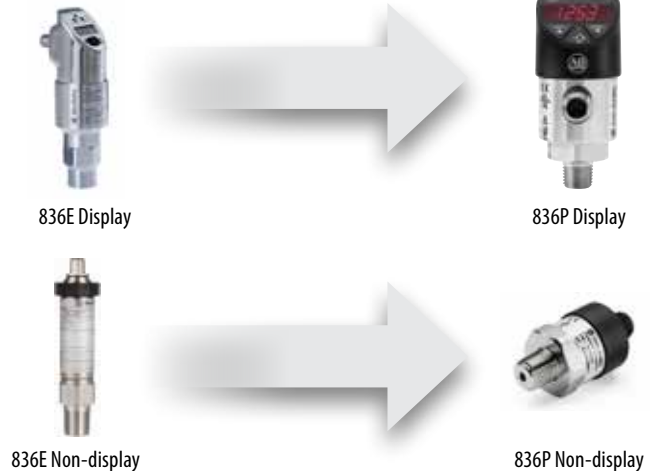
836P Features and Benefits

Display

- Pressure ranges: -1...551 bar (-14.5 psi to 8,000 psi)
- Embedded IO-Link communication protocol helps minimize downtime and increase productivity
- Available in various process connections to fit your application needs
- Rotatable housing (320°) and head (330°) provide application flexibility
- IP67 enclosure rating

Non-display

- Tough, miniature form factor – one of the smallest on the market
- Available in various process connections to fit your application needs
- -1...689 bar (-30 in. Hg to 10,000 psi)



Identify, Mitigate and Help Eliminate the Risk of Automation Obsolescence

In today's economy, it is necessary to have migration solutions that help you to achieve increased productivity and lessen your risk of maintaining your legacy equipment. You need to work with a supplier that has the product, service and industry knowledge to partner with you on an upgrade strategy that will help you maximize your competitive advantage.

Rockwell Automation and its partners will work with you to outline a plan that fits your application needs and long-term goals. We can help you migrate all at once or in phases, at the pace that is comfortable for you and fits your budget.

With your goals in mind, Rockwell Automation has developed a migration strategy that will allow you to quickly and easily migrate from 836E pressure sensors to the 836P pressure sensors.

Product Lifecycle

Use the [Product Lifecycle Status](#) search tool on the web to find specific lifecycle information by catalog number.



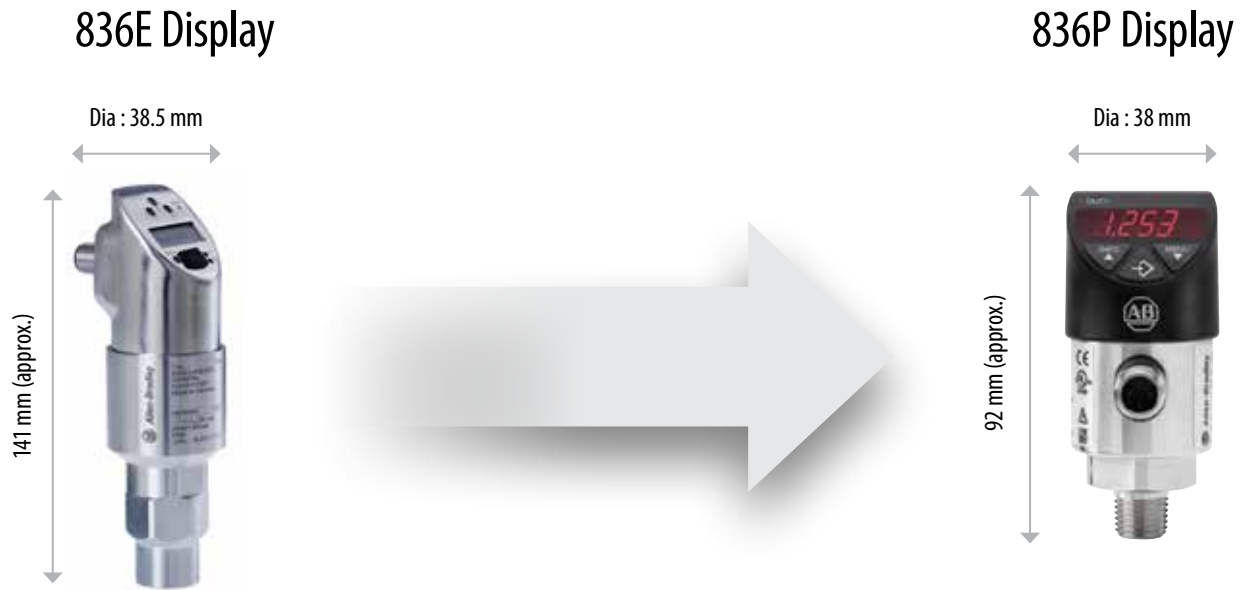
- **ACTIVE:** Most current offering within a product category.
- **ACTIVE MATURE:** Product is fully supported, but a newer product or family exists. Gain value by migrating.
- **END OF LIFE:** Discontinued date announced – actively execute migrations and last time buys. Product generally orderable until the discontinued date.¹
- **DISCONTINUED:** New product no longer manufactured or procured.² Repair/exchange services may be available.

* Discontinued date may be subject to change.

¹ - Outages on specific items may occur prior to the Discontinued date. ² - Limited stock may be available in run-out mode, regionally.



836E Display Pressure Sensor Compared to the 836P Display Pressure Sensor

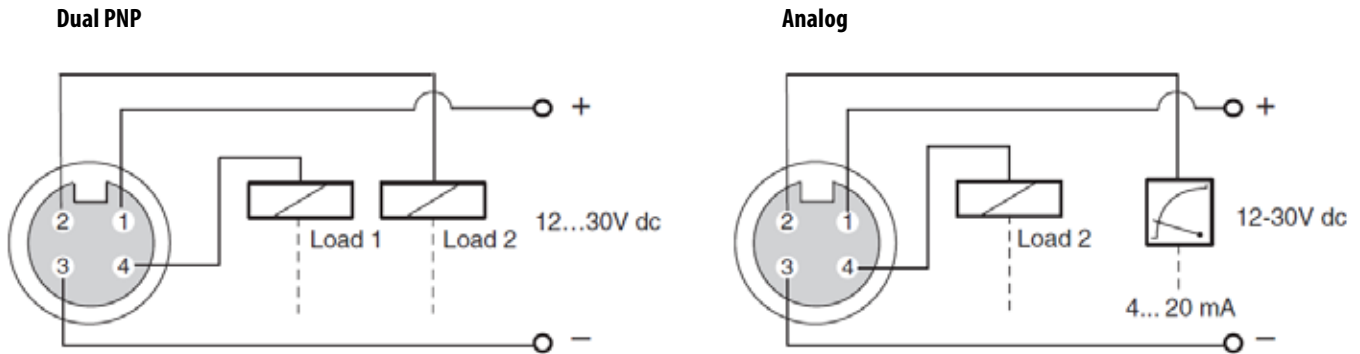


Specifications	836E	836P
Certifications	cULus , CE , 3A**	cULus , CE , EMC , RoHS , 3A**
Supply Voltage	12...30V DC	15...35V DC
Output	Dual PNP and Analog 4...20 mA	Dual PNP and Analog 4...20 mA
Supply Current	<60 mA	70 mA
Repeatability	<0.2 % upper pressure limit	≤0.5 % of span
Long Term Drift	<0.15% per year	≤0.2% of span
Pressure Range	-14.5...6,000 psi	-14.5...8,000 psi
Accuracy	<0.5% of upper pressure range limit	≤1 % of span
Media Temperature	-40...100° C (-40...212° F)	-20...85° C (-4...185° F)
Operating Temperature	-40...85° C (-40...185° F)	-20...80° C (-4...176° F)
Housing Materials	316L stainless steel	304 stainless steel
Wetted Parts	316L stainless steel	316L stainless steel
Enclosure Rating	IP66	IP67
Rotatable Parts	Housing - 310°	Housing - 320° Display Head - 330°
Display	4 digit 14 segment digital display	4 digit 14 segment digital display - bigger and brighter. Display can be rotated 180° via firmware.
Switch Cycles	> 10 million	>100 million
Over Pressure Limit	1.5 times Maximum working pressure	2 times 1.7 times for pressure ranges 1,000 psi and 1,500 psi
Response Time	Switch Output : ≤20 ms Analog Output ≤200 ms	Switch Output : ≤20 ms with IO-Link Analog Output 3 ms
Process Connections	1/4" NPT male / female, G 1/4 BSPP male /female, SAE 7/16...20 UNF male / female	1/4" NPT male / female, G 1/4 BSPP male /female, SAE 7/16...20 UNF male /female
Sensor Configuration	ReadWin 2000 software connected via USB	Configuration through IO-Link using Studio 5000 Logix Designer®

**Sanitary connections are in the product roadmap for the 836P pressure sensors .
The sanitary connections for the old 836E are currently discontinued.

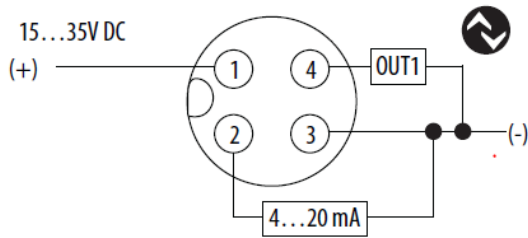
Wiring Diagrams

836E Display

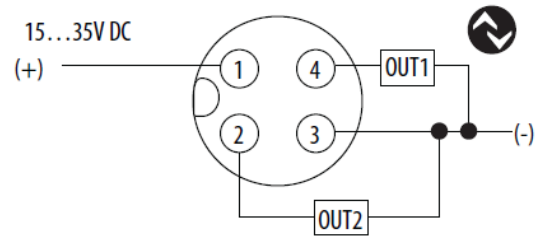


836P Display

1 PNP x 4...20 mA



2 PNP



Note : The wiring diagrams are the same for the old and the new pressure sensors.

Catalog Number Migration

The 836E catalog numbers being discontinued are listed in the table below with a cross reference to the recommended 836P catalog numbers.

836E Catalog Number	Replacement Catalog Number 836P	Note
836E-DC1EN1-D4	836P-D2NFGB20PA-D4	The migration guide lists all the preferred catalog numbers that are stocked parts. If you need a part/catalog number that is not listed in the table corresponding to specific pressure ranges or process connections, please refer to our website for additional configurations. http://rockwellautomation.com/Sensors-Switches/Pressure-Sensors/Solid-State
836E-DA1EN1-D4	836P-D2NFGB20PP-D4	
836E-DC1EL1-D4	836P-D2NFGA60PA-D4	
836E-DC1CC1-D4	836P-D1NFGA20PA-D4	
836E-DC1EQ3-D4	836P-D2GFGC10PA-D4	
836E-DA1EU2-D4	836P-D2SFGC80PP-D4	
836E-DC1EU1-D4	836P-D2NFGC80PA-D4	

836E Non-display Pressure Sensor Compared to the 836P Non-display Pressure Sensor

836E Non-display



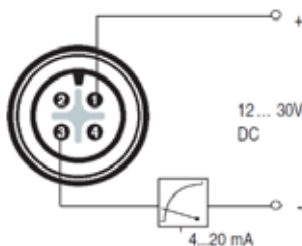
836P Non-display



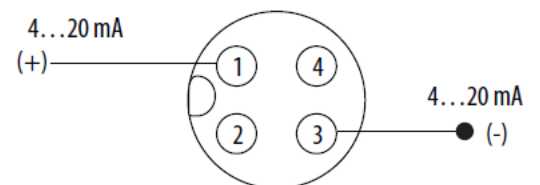
Specifications	836E Non-display	836P Non-display
Certifications	CE	cULus , CE
Supply Voltage	12...30V DC	8...30V DC
Output	Analog 4...20 mA	Analog 4...20 mA
Supply Current	<30 mA	< 25 mA
Repeatability	<0.2 % upper pressure limit	<0.1 % upper pressure limit
Long Term Drift	<0.15% per year	<0.1 % upper pressure limit
Accuracy	<0.5% of upper pressure range limit	<0.3% of span
Pressure Range	0...6,000 psi	-14.5...10,000 psi
Media Temperature	-25...70° C (-13...158° F)	0...80° C (32...176° F)
Operating Temperature	-25...70° C (-13...158° F)	0...80° C (32...176° F)
Housing Materials	304 stainless steel	316L stainless steel
Wetted Parts	316L stainless steel	316L stainless steel
Enclosure Rating	IP65/NEMA 4X	IP67
Over Pressure Limit	1.5 times Maximum working pressure	2 times maximum working pressure
Response Time	2...5 ms	<4 ms
Process Connections	1/2" NPT male /female, 1/4" NPT male / female, G 1/2 male G1/4 male	1/4" NPT male / female, G1/4 male, SAE 7/16...20 UNF male

Wiring Diagrams

836E Non-display



836P Non-display



Note : The wiring diagrams are the same for the old and the new pressure sensors.

836E Non Display sensors Compared to the 836P Non Display sensors

The 836E T catalog numbers being discontinued are listed in the table below with a cross reference to the recommended 836P catalog numbers.

836E Catalog Number	Replacement Catalog Number 836P	Note
836E-TD1EN4-D4	836P-N2NMGB20A-D4	The migration guide lists all the preferred catalog numbers that are stocked parts. If you need a part/catalog # that is not listed in the table corresponding to specific pressure ranges or process connections, please refer to our website for additional configurations. http://rockwellautomation.com/Sensors-Switches/Pressure-Sensors/Solid-State
836E-TD1EQ4-D4	836P-N2NMGB50A-D4	
836E-TD1CC4-D4	836P-N2NMGA20A-D4	
836E-TD1EU4-D4	836P-N2NMGC80A-D4	
836E-TD1EL4-D4	836P-N2NMGA60A-D4	
836E-TD1EN9-D4	836P-N2NFGB20A-D4	
836E-TD1ER4-D4	836P-N2NMGC20A-D4	



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Why Upgrade or Migrate

To better understand your options, contact your local authorized allen-Bradley distributor or Rockwell Automation sales office or visit: www.rockwellautomation.com/go/lifecycle and www.rockwellautomation.com/go/migration

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