

Oil and Gas Facility Saves \$290,000 in Panel Costs with Pressure Transmitter

RESULTS

- Reduced panel costs by 34%
- Eliminated conduit and conduit seals and mounting brackets
- Reduced overall panel weight and size by up to 50%

APPLICATION

Wellhead control, chemical injection and emergency shutdown system applications requiring panel mount pressure transmitter

CUSTOMER

Oil and Gas Facility, Southern USA

CHALLENGE

An oil and gas facility in the Southern United States needed a pressure transmitter in a compact package that minimized the weight, size and overall cost of the panel. Conventional style pressure transmitters lack the form factor necessary to optimize installation in applications such as wellhead control panels, chemical injection skids, and hydraulic power units.

Using a conventional style transmitter not only increases transmitter weight, but it also requires much more “workable” space for accessing the transmitter head, removing covers, and running conduit. Most installations require an additional foot and a half of space around the transmitter to accommodate these functions, which can triple the height and depth dimension of a panel.

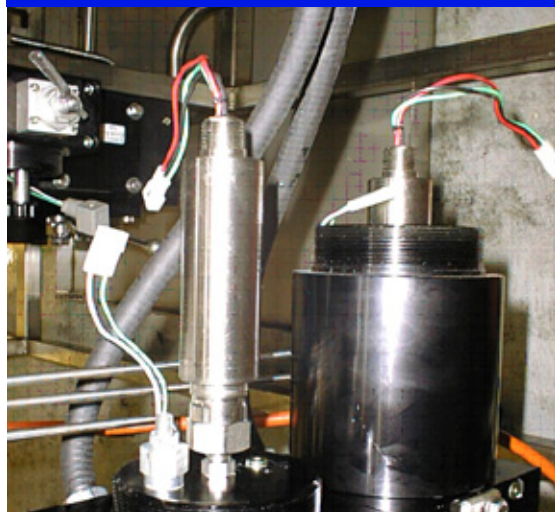
SOLUTION

Designed specially with the application requirements of control panels, the Rosemount 4600 provides a pressure transmitter in a compact package that minimizes the weight, size and overall cost of the panel. In addition, the Rosemount 4600 provides best-in-class performance, stability and reliability.

The compact design of the 4600 enables three transmitters to be mounted in the same amount of space as one conventional style transmitter. The average panel is approximately eight feet (2.4 m) high and varies in length and depth depending on the number of transmitters installed in the panel. Based on a panel containing 80 pressure transmitters, the panel has the following dimensions and cost (without tubing, brackets, and other mounting hardware):



The Rosemount 4600 provides best-in-class performance, stability and reliability in a compact package that minimizes the weight, size, and overall cost of the panel.



ROSEMOUNT[®]

For more information:
www.rosemount.com


EMERSON[™]
Process Management

	Height	Depth	Length	Panel Cost	Savings
Panel Transmitters	8'	3.5'	20'	\$12,840	34%
Conventional Transmitters	24'	10.5'	20'	\$19,560	

*Assumes a cost of \$15.00 square foot (\$1.39 square meter) for end panels/bulkheads and a cost of \$600 per linear foot (\$183 lineal meter) (per Richardson's Contractor Handbook)

By using panel transmitters, savings of 34% were realized on panel cost. Just direct stainless steel panel costs were quantified at 50% by using a panel transmitter.

Savings are increased to \$200,000 per panel on large platform projects. On these, expanding the size of the panel is not feasible because the panel becomes too large. Another panel must be added at a cost of about \$200,000 per panel. The oil and gas facility was able to save \$290,000 in panel costs by using the Rosemount 4600.

An integral conduit seal to allow mounting directly into the bulkhead is a feature of the Rosemount 4600. This eliminates additional conduit and conduit seals, as well as additional mounting brackets.

	Conduit & Conduit Seal	Bracket	Total Hardware Cost
Panel Transmitters	\$0	\$0	\$0
Conventional Transmitters	\$61	\$35	\$96

*Includes hardware and labor costs (per Richardson's Contractor Handbook)

Considering the same example based on 80 transmitters within the panel, the conduit and bracket savings reduce the panel cost an additional \$7,680. Total realized savings includes both total panel costs and total hardware costs, resulting in a savings of \$14,440 per panel or 52% cost reduction per panel.

	Panel Costs	Hardware Costs	Total Cost	
4600 Transmitter	\$12,840	\$0	\$12,840	
Conventional Transmitters	\$19,560	\$7680	\$27,240	
Savings	\$6,720	\$7680	\$14,400	52%

Furthermore, many offshore platform projects are under pressure to reduce the weight of the platform. The 4600 weighs 74% less than a conventional pressure transmitter. This can reduce the overall weight of a panel by 30-50%.

RESOURCES

Rosemount 4600 Oil & Gas Panel Transmitter

<http://www.emersonprocess.com/rosemount/products/pressure/m4600.html>

The Emerson logo is a trade mark and service mark of Emerson Electric Co. Rosemount and the Rosemount logotype are registered trademarks of Rosemount Inc. All other marks are the property of their respective owners.

Emerson Process Management
 Rosemount Division
 8200 Market Boulevard
 Chanhassen, MN 55317 USA
 T (U.S.) 1-800-999-9307
 T (International) (952) 906-8888
 F (952) 949-7001
www.rosemount.com

Emerson Process Management
 Heath Place
 Bognor Regis
 West Sussex PO22 9SH,
 England
 T 44 1423 863121
 F 44 1423 867554

Emerson Process Management
 Emerson Process Management Asia Pacific
 Private Limited
 1 Pandan Crescent
 Singapore 128461
 T (65) 6777 8211
 F (65) 6777 0947
Enquiries@AP.EmersonProcess.com



The 4600 features an integral conduit seal to allow mounting directly into the bulkhead. This eliminates additional conduit and conduit seals, as well as additional mounting brackets, resulting in further savings.



For more information:
www.rosemount.com

