

# Foxboro "S" Series Pressure Transmitters

## IGP10S and IAP10S Pressure Transmitters

Foxboro® Pressure "S" Series Models IAP10S and IGP10S transmitters are intelligent, two-wire transmitters that provide precise, reliable measurement of absolute or gauge pressure, and transmit a 4 to 20 mA output signal with a superimposed HART digital signal for remote configuration and monitoring.

The IAP10S and IGP10S pressure transmitters enable customers to accurately track in-service time, which allows for predictive maintenance and can reduce inventory costs with a wide range of applications that traditionally require two separate transmitters.



**Foxboro**<sup>®</sup>  
by Schneider Electric



## PRODUCT AT A GLANCE

- Industry leading 400:1 turndown
- Patented FoxCal™ multiple calibration technology
- Time in Service features for advanced diagnostics
- LCD indicator with on-board pushbuttons for configuration
- 5-year standard warranty

### Precise and Reliable Measurement

The Foxboro I/A Series® Pressure "S" Series Models IAP10S and IGP10S transmitters are intelligent, two-wire transmitters that provide precise, reliable measurement of absolute or gauge pressure, and transmit a 4 to 20 mA output signal with a superimposed HART digital signal for remote configuration and monitoring.

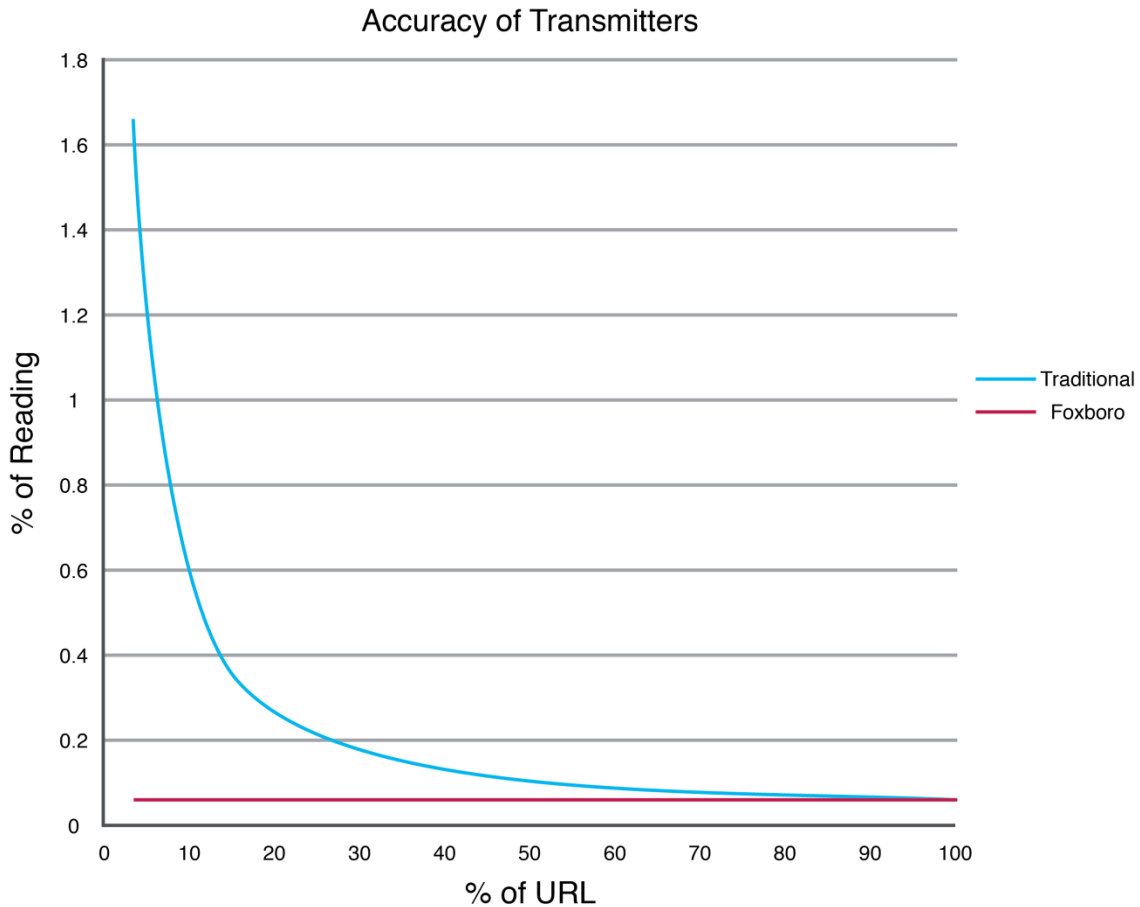
### Time in Service

Similar to how an odometer allows an automobile owner to track the total number of miles driven and a trip odometer tracks the number of miles driven since a user-defined starting point, the IAP10S and IGP10S transmitters allow you to keep track of the number of days the transmitter has been in service. The Time In Service meter tracks both the total number of days the transmitter has been powered up in the field over its lifetime (total days), and also tracks the number of days the transmitter has been powered up since the last Time in Service meter reset (user days). You can reset the user day's value to zero using a HART communicator, a PC-based configurator, or the optional local indicator, but you cannot reset the lifetime service parameter.

### Wide Turndown Ranges

Excellent performance is maintained over an industry leading wide turndown range, meaning that an IAP10S/IGP10S transmitter performs better than two separate transmitters designed to cover the same turndown range.

The turndown ratio for span adjustment is up to 400:1. This means that the IGP10S transmitter with its 200 psi URL sensor can be set to provide a 4 to 20 mA output for any range between 0 to 0.5 and 0 to 200 psi (0 to 0.0034 and 0 to 1.38 MPa). Similarly, the IGP10S transmitter with its 2000 psi URL sensor covers any range between 0 to 5 and 0 to 2000 psi (0 to 0.034 and 0 to 13.8 MPa).



### FoxCal Multiple Calibration Feature

The Foxboro IAP10S and IGP10S pressure transmitters offer a unique patented FoxCal (multiple calibration) technology feature that eliminates the need for a traditional single span calibration at an application-specific pressure range. Transmitters with the multiple calibration feature enabled use multiple calibrated ranges that are stored in the on board memory. The multiple (11) calibration ranges are pre-set in the factory and cover the full pressure range of the transmitter. During operation, a real-time, seamless transition from one calibrated range to another maintains accuracy as a percent of reading from 3% to 100% of the upper range limit (URL).

Factory calibration and field calibration for specific applications are not required for zero-based ranges. You can simply configure over range the upper range value (URV) without performing a recalibration at the URV. You only need to perform a zero adjustment after installation to obtain the performance to the specified reference accuracy.

There is an option to request a calibration certificate when ordering the IAP10S or IGP10S transmitter, which demonstrates 11 multiple calibration ranges. The LRV and URV points are configured (Re ranged) to the user specified values and the accuracy is verified over that specific range.

# Foxboro “S” Series Pressure Transmitters Functional Specifications

## IAP10S Absolute Pressure Transmitter

Span Limit Code	Normal Operating Span (a)			Span Limits (a)		
	psi	MPa	bar	psi	MPa	bar
D	2.5 to 200	0.017 to 1.38	0.17 to 13.8	0.5 and 200	0.0034 and 1.38	0.034 and 13.8
E	25 to 2000	0.17 to 13.8	1.7 to 138	5 and 2000	0.034 and 13.8	0.034 and 138

## IGP10S Gauge Pressure Transmitter

Span Limit Code	Normal Operating Span (a)			Span Limits (a)		
	psi	MPa	bar	psi	MPa	bar
D	2.5 to 200	0.017 to 1.38	0.17 to 13.8	0.5 and 200	0.0034 and 1.38	0.034 and 13.8
E	25 to 2000	0.17 to 13.8	1.7 to 138	5 and 2000	0.034 and 13.8	0.034 and 138
F(b)	100 to 6000	0.69 to 41.4	6.89 to 414	100 and 6000	0.69 to 41.4	6.89 to 414

- a) In absolute or gauge pressure units, as applicable.
- b) Not available with pressure seals.

## Maximum Over range and Proof Pressure Ratings

Span Limit Code	Normal Operating Span (a)		Span Limits (a) (b)	
	psi	MPa	psi	MPa
D	300	2.1	800	5.51
E	3000	20.7	8000	55.1
F(IGP10S only)	8400	58	24000	165

- a) Values listed are in absolute or gauge pressure units, as applicable. Maximum over range pressure is the maximum pressure that may be applied without causing damage to the transmitter.
- b) Proof pressure ratings meet ANSI/ISA Standard S82.03-1988. Unit may become non-functional after application of proof pressure.