

# SIEMENS

Ingenuity for life



Pressure Measurement

## Processes require precision

Reliable, low-maintenance pressure measurement with SITRANS P320

[www.siemens.co.in](http://www.siemens.co.in)

**SITRANS P320** is the next generation state-of-the art pressure and differential transmitter family, the **successor of SITRANS P DSIII** family which has served the process industry for more than 30 years with over a million installations across the globe.

This next generation of pressure transmitter is designed according to IEC 61508 standard **for use in safety integrity level (SIL) 2/3**. This transmitter will also significantly **lower maintenance costs** as it has an increased proof test interval over other devices in the market.

The Siemens pressure transmitter SITRANS P320 is the **first pressure transmitter in the market to feature remote safety handling** reducing commissioning time in applications requiring functional safety. Via SIMATIC Process Device Manager (PDM) the SIL devices will be commissioned: rather than manually attending to each individual device across the facility, operators can commission transmitters from the control room.

SITRANS P320's user-friendly features also include a new **larger and improved display**, showing users the devices' status at a glance. Setup is convenient and quick thanks to four-button programming, NAMUR NE 107 support and a quick start wizard.

With measuring **ranges from 20 mbar to 700 bar**, depending on the device, SITRANS P320 family provides reliable results under extreme conditions. These devices are specially suited for applications where safety is critical - in industries such as chemical, oil and gas, and power generation. The SITRANS P320 can also play to its strengths across various other industries.

### Benefits

- Full SIL-2/3 assessment
- Reduced commissioning time due to remote safety handling
- Suitable for harsh conditions due to robust materials
- User-friendly due to clear display and diagnostic icons acc. to NAMUR NE107
- Maintenance cost reduction due to proof test interval up to 15 years
- Fast reaction and optimized processes due to reduced response time

## Comparison between SITRANS DSIII and SITRANS P320

	SITRANS P DSIII	SITRANS P320
Linear Characteristic	1:1...5:1: 0.065% TD> 5:1: (0.005 x r +0.05)%	1:1...5:1: 0.065% TD> 5:1: (0.005 x r +0.05)%
Temperature Error	(0.025 x r +0.125)% / 28K	(0.025 x r +0.125)% / 28K
Effect of static pressure error per 70 BAR	Zero Error = (0.1 x r) % Span Error = 0.14%	Zero Error = (0.1 x r) % <b>Span Error = 0.1%</b>
Total Performance (TD 1:1)	0.19%	<b>0.18%</b>
Step Response Time in milliseconds (ms.)	< 170 ms.	<b>135 ms. for DP / 105 ms. for P</b>
SIL (Safety Integrity Level)	SIL proven in use for SIL 2/3 applications	Designed according to IEC61508 standards for SIL2/3 applications
SFF (Safety Failure Fraction)	80%	<b>91%</b>
Communication	Hart 5 Protocol	Hart 7 Protocol
Tags	Y15 - Max 16 characters, Y16 - Max 27 Characters	Y15 - <b>Max 32 characters</b> , Y16 - <b>Max 32 Characters</b>
Operability via buttons	3 push buttons	Increased convenience using <b>4 push buttons</b>
Long Term Stability	≤ 0.25 % / 5 years for lower & higher ranges and 0.125 % / 5 years for medium ranges	≤ 0.25 % / 5 years for lower & higher ranges and 0.125 % / 5 years for medium ranges, ≤ 0.35 % / 10 years for lower & higher ranges and 0.15 % / 10 years for medium ranges
Display	Standard Display	<b>NAMUR NE107 device status at a glance, Improved readability</b>
New differential pressure cell design	The 20mbar cell is designed for PN32 in the DSIII	The 20mbar cell is <b>designed for PN160</b> in the DSIII
Rating Plate	Rating Plate on Left Hand side of the transmitter	Rating Plate is located on the front side of enclosure