

Industrial Automation

IMI Norgren

54D Electronic Pressure Sensor
for Pneumatic Applications



Breakthrough
engineering for
a better world

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Breakthrough engineering for a better world

We create solutions for our customers which enable smarter, safer, more productive and sustainable factories, production lines and warehouse operations. Our pneumatic and electric motion systems help machine builders and end users around the world automate and optimise manufacturing and warehousing processes.

We have partnered with customers in industrial automation for over a century, applying our experience and innovation to create lasting value for their businesses. Our solutions support critical industries such as automotive, food and beverage, pharmaceuticals and even the space industry. We support the automation of precision manufacturing, product assembly, testing and packaging.

We use the latest digital technologies in our automation products and constantly innovate in close partnership with our customers. By applying our deep expertise, we can solve their toughest automation challenges, today and tomorrow. Through increased productivity, efficiency and safety, our customers can serve their own customers better, creating sustainable competitive advantage and delivering growth.

Our world-class product portfolio includes IMI Norgren, IMI Bimba, IMI Bahr and IMI Buschjost.



Electronic Pressure Sensors

Pressure sensing technology is critical when pressure monitoring for plant security, or pressure control for high level functionality is needed in an application.

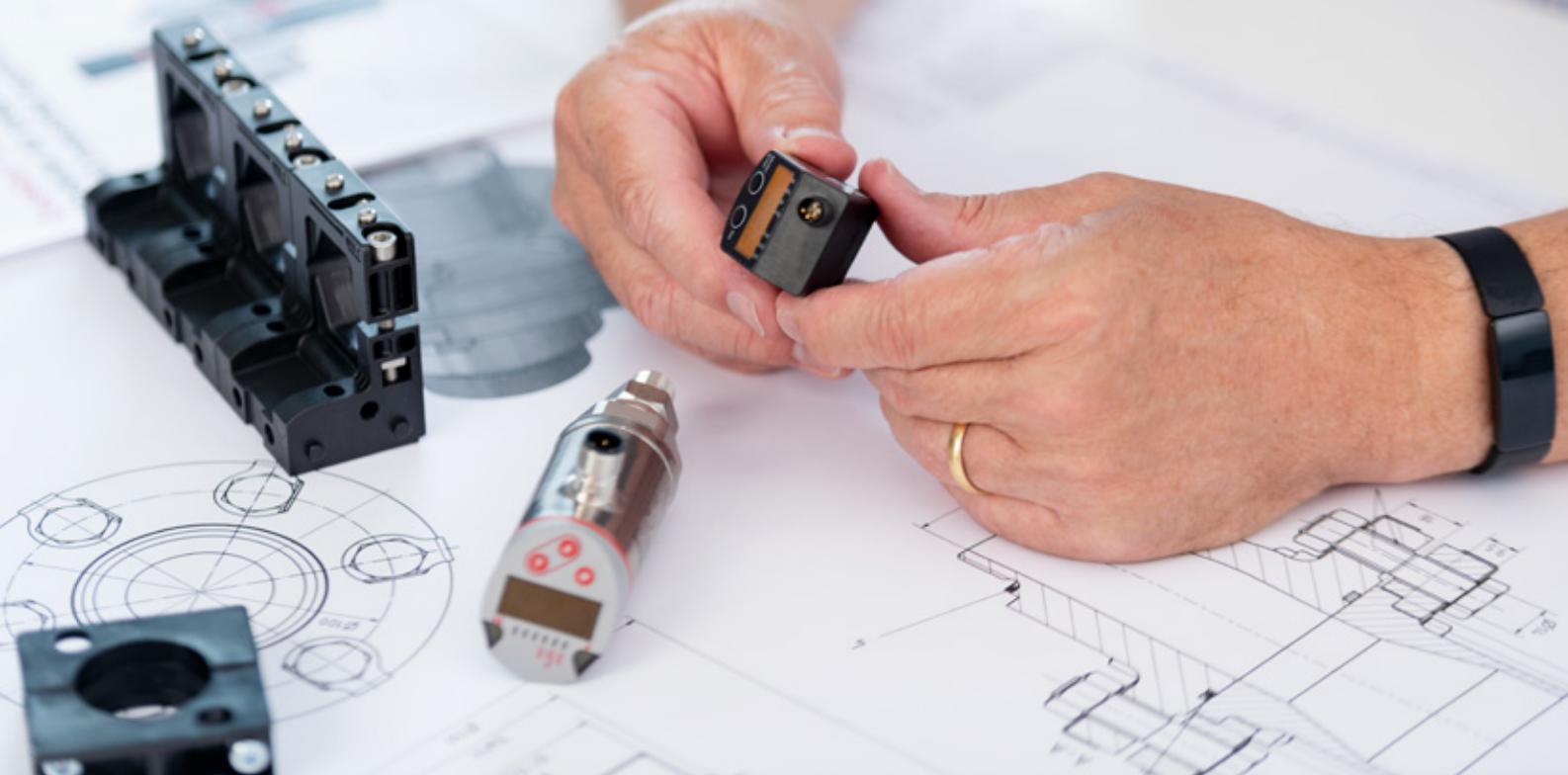
Pressure switches can be used to automatically monitor pressure levels in a pneumatic system, or be used for more complex monitoring functions in air, water, hydraulic or fluid applications.

We can offer our customers over 50 years of pressure switch technology experience and expertise to find the appropriate solution for our customers.

Electronic pressure sensors are particularly suitable in applications where the classic mechanical pressure switch is not befitting.

Offering benefits in accuracy, life span and functionality our range is suitable for modern manufacturing technologies. Pressure set points are programmable either manually or remotely via IO-Link, with high levels of visibility via LEDs and digital displays.





54D Electronic Pressure Sensor with IO-Link

The IMI Norgren 54D pressure sensor allows customers to react quickly and effectively to changing requirements through its in built intelligence. Delivering flexibility, 54D features easy installation, easy viewing and reliable operation. With a compact and lightweight design, G1/8 media connection port and M8 electrical connector 54D is ideally suited for monitoring general vacuum and compressed air applications, particularly end of arm tooling applications.

Product Highlights:

- **Easy installation** – Using integrated mounting holes or a DIN rail bracket, and M8 electrical connector for maximum flexibility
- **Connected** – IO-Link capability allows remote set-up and application performance data for improved system monitoring
- **Accurate** – High accuracy of $< \pm 0.5\%$ of span
- **Simple set-up** – Easy and quick manual set up via push buttons, or remote setup of multiple switches via IO-Link
- **Easy to use** – Two colour display for easy identification of correct pressure setting
- **Robust** – PBT engineering polymer housing is mechanically strong and heat resistant
- **Reliable** – Specially coated piezoresistive silicon measuring cell that is resistant to moisture, and high IP65 ingress protection as standard



- Differential pressure option ●●
- Auxiliary pressure connection for differential pressure sensing ●●

- IO-Link Capability ●●
- Application performance data ●●



- Easy Installation ●●
- Mountable DIN rail option for control cabinet mounting ●●

- Easy to use ●●
- Two colour configurable display for units of measure ●●

Technical Specifications

- Suitable for monitoring compressed air in general purpose pneumatic applications
- IO-Link capability
- Two output options
 - 2 x PNP
 - 1 x PNP (IO-Link configurable, 1 x Analogue 4.20 mA)
- Specially coated piezoresistive silicon measuring cell
- Capable of detecting vacuum and pressure in a single switch
- Straight or angled M8 connector cables
- Vacuum to 16 bar pressure ranges
- 0°C to 70°C operating temperature
- Configurable display for units of measure (bar, psi, kPa, InHg)
- Option for differential pressure sensing – capable of detecting blocked filter element
- High accuracy $< \pm 0.5\%$ of span
- Two colour display
- Status LEDs indicate units of measure
- Angled display for easier visibility and operation
- Parameter setting options:
 - hysteresis
 - window; normally open
 - normally closed; analogue output; IO-Link
- Ingress protection IP65
- Mounting on end of arm tooling or in control cabinet
- Mounting hole positions backwards compatible with previous series

Standard Options

Standard Model	Description	Port Size	Auxiliary Port Size	Pressure Range	Over Pressure	Type of Pressure	Output Signals
54D-V101G-DD0-AA	54D Pressure Sensor	G1/8	–	-1...1 bar	20 bar	Relative	2 x PNP
54D-V101G-DA1-AA	54D Pressure Sensor with IO-Link	G1/8	M5	-1...1 bar	20 bar	Relative + Differential	1 x PNP (IO-Link Configurable), 1 x Analogue
54D-V110G-DD0-AA	54D Pressure Sensor	G1/8	–	-1...10 bar	20 bar	Relative	2 x PNP
54D-V110G-DA1-AA	54D Pressure Sensor with IO-Link	G1/8	M5	-1...10 bar	20 bar	Relative + Differential	1 x PNP (IO-Link Configurable), 1 x Analogue
54D-P016G-DD0-AA	54D Pressure Sensor	G1/8	–	0...16 bar	20 bar	Relative	2 x PNP
54D-P016G-DA1-AA	54D Pressure Sensor with IO-Link	G1/8	M5	0...16 bar	20 bar	Relative + Differential	1 x PNP (IO-Link Configurable), 1 x Analogue

Accessory Model	Description
54D-DINRAIL-CLIP	DIN Rail Clip / Bracket
0523449000000000	Connector M8 x 1 Straight x 1.5 m Long
0523447000000000	Connector M8 x 1 Straight x 5 m Long
0523446000000000	Connector M8 x 1 Angled x 1.5 m Long
0523448000000000	Connector M8 x 1 Angled x 5 m Long

Accessories

The 54D pressure sensor is supported by a range of cables, mounting brackets and flange adaptors

M8 x 1 straight connector



M8 x 1 90° angled connector



DIN rail bracket



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