

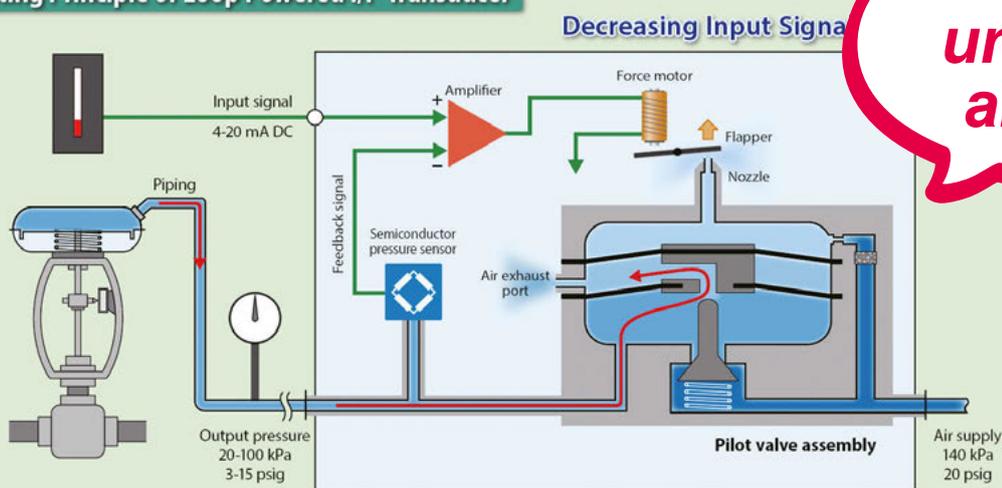


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I/P TRANSDUCER

How I/P Transducers Work

Operating Principle of Loop Powered I/P Transducer



Easy-to-understand animation

This video explains the functions and workings of I/P transducers, using a simulated plant facility and an animated diagram.



Loop Powered I/P Transducer
Model: HVPN



Be sure to check out the video!



 Please subscribe to M-System channel.

You can also watch the video at M-System web site:
https://www.m-system.com/video_e/

“Survivor of Pneumatic Instrumentation Era”

I/P TRANSDUCER

*What has changed,
and what has not.*

When a modern I/P transducer is compared to its predecessor in the pneumatic instrumentation era, the basic working principle of amplifying pressure signal obtained by a pressure controlling “nozzle-flapper” mechanism has not been changed.

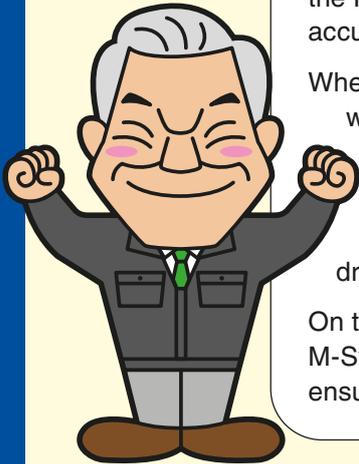
What has changed is the part of controlling the gap between the nozzle and the flapper by balancing input current signal and output feedback signal.

Once the gap was controlled by a mechanically extending/retracting bellow moved directly by the I/P transducer's output pressure. In this method, mounting positions of the transducer and accumulation of carbon particles in the air channels could cause output fluctuations.

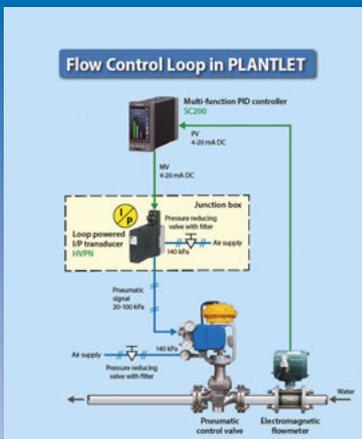
When the development of electronics finally brought semiconductor pressure sensors in the world, M-System quickly adopted this new technology to develop an electronic feedback system in the I/P transducer.

In this method, the semiconductor pressure sensor, which was not affected by the mounting positions or the internal conditions of the air channels, successfully eliminated the drawback of the mechanical feedback system.

On the other hand, the accuracy of the pressure sensor itself affects that of the I/P transducer. M-System uses high-precision pressure sensor with excellent temperature characteristics to ensure and enhance the overall performance of its I/P transducers.



“PLANTLET” simulated plant facility is used to explain the role of I/P transducer.



**Loop Powered I/P Transducer,
model HVPN, is installed.**

For details, visit M-System's website.

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