

ABB Instrumentation Actuators & Positioners

November 21, 2014

Measurement made easy

Factory Assembled IP Converter with Filter-Regulator

Did you know that ABB offers I/P Converters with an attached Filter/Regulator as a single and complete assembly?

A Filter/Regulator Assembly helps ensure that the I/P Converter receives the proper quality of air supply and is a means for the customer to protect their investment.

ABB now offers a single catalog number that includes the I/P Converter, Filter/Regulator, Pressure Gauges, and Mounting Bracket - all put together by our factory and shipped as a single assembly as shown in the photo.



I/P Converter with Filter/Regulator Assembly

Unique I/P conversion principle allows mounting in any position

Low Air Consumption 0.095 scfm

High Air Output Capacity 2.4 scfm

Easy to order - single catalog number for the entire assembly

Rugged Aluminum NEMA4X / IP65 Housing

Unmatched immunity to shock and vibration
<1% at 10 g at 80 Hz

Ease of installation with no assembly needed by customer

Filter/Regulator protects the I/P Converter from contaminants in the air supply and overpressure

Assembly Number / Description

ITOP-1822315

Field Mount I/P Converter (V18311H-1822101),
General Purpose, 4-20 mA / 3-15 psig, Assembled
with Filter-Regulator and Pipe Mounting Bracket,
0-30 psig Supply Gauge, 0-15 psig Output Gauge

ITOP-7822315

Field Mount I/P Converter (V18311H-7822101),
Explosion proof, 4-20 mA / 3-15 psig, Assembled
with Filter-Regulator and Pipe Mounting Bracket,
0-30 psig Supply Gauge, 0-15 psig Output Gauge

ITOP-7820118

Field Mount I/P Converter (V18311H-7820101/511)
Explosion proof, 4-20 mA / 1-18 psig, Assembled
with Filter-Regulator and Pipe Mounting Bracket, 0-
30 psig Supply Gauge, 0-30 psig Output Gauge

ITOP-7820327

Field Mount I/P Converter (V18311H-7820101/512)
Explosion proof, 4-20 mA / 3-27 psig, Assembled
with Filter-Regulator and Pipe Mounting Bracket,
0-30 psig Supply Gauge, 0-30 psig Output Gauge

ITOP-7820630

Field Mount I/P Converter (V18311H-7820101/509)
Explosion proof, 4-20 mA / 6-30 psig, Assembled
with Filter-Regulator and Pipe Mounting Bracket,
0-30 psig Supply Gauge, 0-30 psig Output Gauge

Technical data

Air capacity: 4.1 Nm³/h = 2.4 scfm

Instrument air:

Free of oil, water and dust acc. to DIN / ISO 8573-1

Pollution and oil content according to Class 3

Pressure dew point 10 K below operating temperature

Air consumption: ≤ 0.2 kg/h = 0.16 Nm³/h = 0.1 scfm

Deviation: ≤ 0.5 %

Hysteresis: ≤ 0.3 %

Dead band: ≤ 0.1 %

Temperature Effect:

$\leq 1\%$ / 10 K within -20 ... 85 °C (-4 ... 185 °F)

Power supply:

$\leq 0.3\%$ / 0.1 bar (1.5 psi) change in pressure

Mechanical vibration:

$\leq 1\%$ to 10 g and 20 ... 80 Hz

Seismic vibration:

Meets requirements of DIN / IEC 68-3-3 Class III for
strong and strongest earthquakes.

Mounting orientation:

Zero point $\leq 0.4\%$ at 90° change of position

Ambient Temperature Limits:

-40 ... 85 °C (-40 ... 185 °F)

Installation position: Any

Filter-Regulator

ABB can also offer the Filter-Regulator as a loose item to be installed in the supply line and connected to the I/P Converter by the client. The Filter/Regulator is just over 7" in height and 1-1/2" in diameter and can be easily nipple-mounted to our standard field mount I/P Converters.

The Filter-Regulators utilize coalescing filter elements. Coalescing filter elements eliminate not only solid particles but also water and oil at a very high efficiency. The compressed air supply pushes the contaminants to the outside of the filter cartridge where it drips to the bottom of the bowl and is removed from the housing through a drain.



Part Number / Description

5229900 556025
Filter-Regulator,
1/4" NPT port size, 1/8" gauge port,
Polycarbonate Bowl,
Maximum operating pressure 150 psig,
Adjustable Range 5-60 psig

Product Support Documentation:

The following documents are posted on the Channel partner secure site "ABBWIN." Search under product group "Actuators & Positioners." Data sheets and manuals can be found on www.abb.com/measurement.

Data Sheet

TEIP11-PS – I/P signal converter for standard signals
10/18-0.10-EN Rev. B [Click here for link](#)

Operating Instruction Manual

TEIP11, TEIP11-PS I/P Signal Converter
42/18-46-EN Rev. I [Click here for link](#)

For any additional information or questions regarding the content of this document please feel free to contact me.

Regards,

Handwritten signature of Ken Frisbie in black ink.

Ken Frisbie
Technical Support Specialist
Actuators & Positioners
Phone: 1+ 215-674-6918
Fax: 1+ 215-674-5580
e-mail: ken.frisbie@us.abb.com

Distributed by Buck Sales Inc
www.bucksales.com