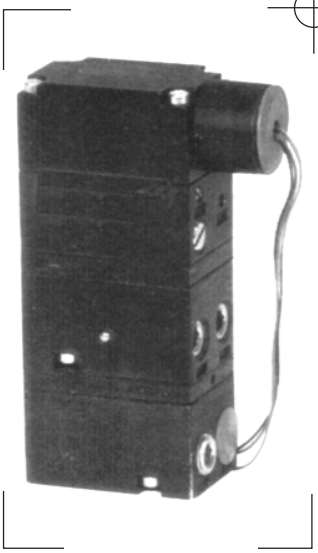
nexen

ELECTRO-PNEUMATIC CONVERTERS

Converts an electric current input signal into a pneumatic signal.



EN 50 Electro-Pneumatic Converter

The EN 50 is designed to accept a low power 4-20 mA or 0-10 volt signal, and to convert this signal into a proportional pneumatic pressure.

Standard Features

- High pneumatic pressure output
- Excellent linearity and response
- Temperature compensated
- Compact size
- Simple Installation and Maintenance
- Flexible mounting options
- Field reversible for reverse output operation
- Optional volume booster available for even more flow capacity
- CE marked

EN 50 & EN 40 Dimensions page 19

Function

The electro-pneumatic converter, Model EN 50, converts a current or voltage signal into a proportional pneumatic output. The typical application is controlling a pneumatic clutch or brake from an electronic controller. Nexen tension controllers, either the open loop or closed loop types, require the EN 50 as an interface to control a pneumatic clutch or brake.

Available in three output ranges

The EN 50 Electro-pneumatic transducer is available in 3 output ranges to match your requirements.

Model	Product Number	Signal Input	Air Output
EN 50-15	964229	4-20 mA	0-15 psi (0-100 kPa)
EN 50-60	964230	4-20 mA	0-60 psi (0-420 kPa)
EN 50-85	964231	4-20 mA	0-85 psi (0-595 kPa)
EN 50-85V	964232	0-10 volts	0-85 psi (0-595 kPa)

Filtering

Instrument quality air, per ISA Standards D7.3-1981, is required. Use a filter to remove dirt and liquid from the air line ahead of the transducer if necessary. If an air line lubricator is used, it must be located downstream, beyond the transducer.

Product Number	Description
912005	5 micron prefilter
912006	.01 micron final filter

Air Volume Booster

For those rare applications where long air lines require extra air volume, a volume booster is available. Order part number 964228.

CE

Specifications

FUNCTIONAL SPECIFICATIONS	EN 50-15	EN 50-60	EN 50-85	EN 50-85V
Output Range	0-15 psig (0-100 kPa)	0-60 psig (0-420 kPa)	0-85 psig (0-595 kPa)	0-85 psig (0-595 kPa)
Supply Pressure	20-150 psig (140-1050 kPa)	65-150 psig (455-1050 kPa)	90-150 psig (630-1050 kPa)	90-150 psig (630-1050 kPa)
Effects on Output	.5 psig (4 kPa) @ 25 psig (175 kPa)	1.0 psig (7 kPa) @ 25 psig (175 kPa)	1.5 psig (10.5 kPa) @ 25 psig (175 kPa)	1.5 psig (10.5 kPa) @ 25 psig (175 kPa)
Minimum Span	12.5 (84)	25 (175)	50 (350)	50 (350)
Air Consumption (SCFM)	12.0 (0.34m³/Hr)	13.0 (0.36m³/Hr)	6.0 (0.48m³/Hr)	6.0 (0.48m³/Hr)
Flow Rate (SCFM)	11 SCFM (3.19 m³/Hr) @ 150 psig (1050 kPa) and 9 psig (63 kPa) output			
Impedance/Input Signal	250 Ohms	256 Ohms	270 Ohms	893 Ohms
PERFORMANCE SPECIFICATIONS	**EN 50-15**	**EN 50-60**	**EN 50-85**	**EN 50-85V**
Impedance/Input Signal (%FS)	±0.75	±1.0	±1.0	±1.0
Hysteresis and Repeatability	<1.0% FS @ 35 psig supply	<1.0% FS @ 65 psig supply	<1.0% FS @ 125 psig supply	<1.0% FS @ 125 psig supply
Temperature Range	-20° F to +150° F (-30° C to +65° C)			
Materials of Construction	Body and Housing: Aluminum, Orifice: Sapphire, Trim: Stainless Steel, Brass, and Zinc Plated Steel			