

Echoking® Ultrasonic Level Transmitter



measuring
•
monitoring
•
analyzing

NEO



- Measuring Range up to 24.5 ft
- Compact, Easy Installation
- Automatic Temperature Compensation
- Non-contact Sensor
- Compatible with Viscous, Sticky, or Aggressive Media
- 4-20 mA Transmitter
- Easy Calibration via On-board Display
- Loop Powered and Intrinsically Safe Models Available
- Bi-stable Switch Option for Pump or Valve Control



Order from: **C A Briggs Company**
622 Mary Street; Suite 101; Warminster, PA 18974
Phone: 267-673-8117 - Fax: 267-673-8118
Sales@cabriggs.com - www.cabriggs.com

Description

The KOBOLD NEO is a full featured level system suitable for monitoring liquid levels and some dry-bulk materials. Through sophisticated signal processing, it delivers accuracy and dependability. The powerful internal microprocessor uses a form of artificial intelligence to learn about the process surroundings. This on-going learning process helps it to distinguish between real echoes, reflections, and background noise. The sensor also adapts constantly to on-site conditions. In air environments, the NEO adjusts for temperature variations by using an internal thermal sensor and compensation table. A built-in relay may be used to control tank fill/empty operations, as an alarm for level detection, or for fault detection. Span, set-point limits, and all necessary information is stored digitally in a non-volatile memory. There are no sensitive analog potentiometers to adjust. It is easily programmable via an on-board touch pad. All process parameters can be easily entered into the system at the installation site. For use in hazardous conditions, pair model NEO-5001IS with an approved I.S barrier, sold separately.



Technical Data

Range

- NEO-5001, -5001IS: 18 ft. from Sensor Face
- NEO-5003: 24.5 ft. from Sensor Face

Dead Band: 0.5 ft. (6")

Span

- NEO-5001, -5001IS: 17.5 ft.
- NEO-5003: 24 ft.

Accuracy: ± 0.25% of Full Scale

Repeatability: ± 0.125"

Fitting: 2" NPT

Display

- NEO-5001, -5001IS: 4 Digit LCD, Units in in/cm
- NEO-5003: LED

Materials of Construction

- Probe:** PVDF
- Enclosure:** PP (UL 94VO)

Temperature Range: -40...140 °F

Temp. Compensation: Over Entire Range

Pressure Rating: 30 PSI @ 75 °F

Beam Angle: ± 8% off Vertical

Sensor Frequency: 50 KHz

Supply Voltage: 14-36 VDC

(NEO-5003

Current Draw: 200 mA Max.

Signal Output

NEO-5001, -5001IS: 4-20 mA DC (2-wire) into 350 ohms Max.

NEO-5003: 4-20 mA DC (3-wire) into 350 ohms Max.

Relay (NEO-5003 Only): SPDT 12 amps @ 240 V_{AC}/120 V_{DC}

Protection

NEO-5003: NEMA 4X

NEO-5001, -5001IS: NEMA 4X Case

IS Ratings (NEO-5001IS Only)

CSA/NRTL/C: Class I, Div 1, Groups ABCD
Class II, Div 1, Groups EFG
Class III, Temp. Code: T3C

V_{max}: 32.0 V_{DC}

I_{max}: 130 mA

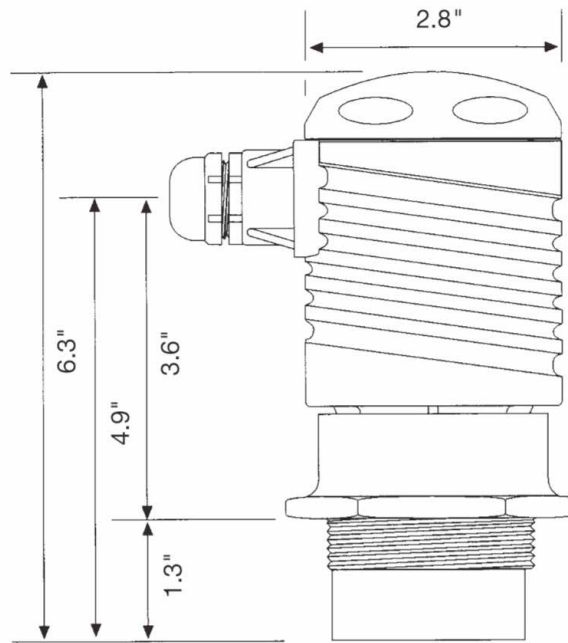
C_i: 0 microFarads

L_i: 0 microHenries

Order Details (Example: NEO-5003)

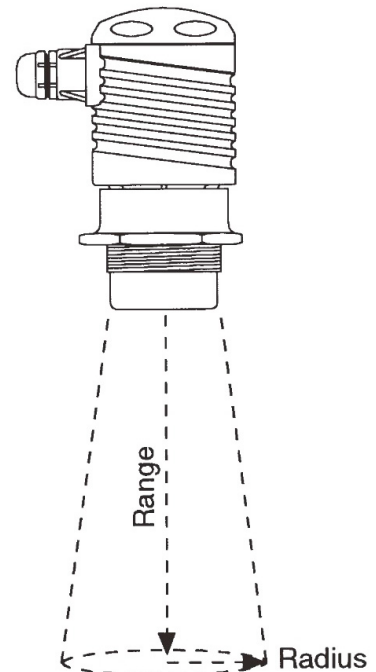
Output Type	Model
Standard 4-20mA, 2-wire	NEO-5001
Standard 4-20mA, 2-wire Intrinsically Safe	NEO-5001IS
Sourcing 4-20mA, 3-wire with SPDT Bi-stable Relay	NEO-5003

Dimensions



Beam Divergence

Range (ft)	Radius (in)	Range (ft)	Radius (in)
1	2.6	14	23.1
2	4.2	15	24.7
3	5.7	16	26.3
4	7.3	17	27.8
5	8.9	18	29.4
6	10.5	19	31.0
7	12.1	20	32.6
8	13.6	21	34.2
9	15.2	22	35.7
10	16.8	23	37.3
11	18.4	24	38.8
12	20.0	25	40.5
13	21.5		



Order from: **C A Briggs Company**

622 Mary Street; Suite 101; Warminster, PA 18974

Phone: 267-673-8117 - Fax: 267-673-8118

Sales@cabriggs.com - www.cabriggs.com

No responsibility taken for errors;
subject to change without prior notice.