

Inductive Valve Sensor Assembly

F31K-E8-K-BY-SET

- Comprehensive sensor and valve kit
- A single part number includes all components
- LEDs for power on, switching states of the sensor and solenoid valve

The F31K-E8-K-BY-SET is a complete assembly kit consisting of an inductive dual sensor for valve position feedback, an indicator and a solenoid valve

Function

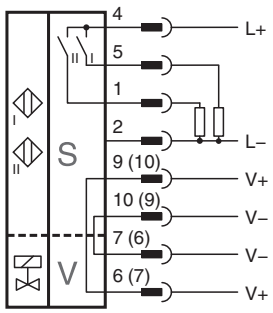
The NBN3-F31K-E8-K inductive dual sensor with terminal compartment and cage tension spring terminals is operated with a voltage supply of 10 … 30 VDC.
The separate voltage supply for the solenoid valve is also connected to the corresponding terminals of the dual sensor. The dual sensor passes this signal through and transmits it to the solenoid valve via the connecting cable. Clearly visible LEDs on the dual sensor for the switching states of the dual sensor and the solenoid valve are helpful for operation and diagnosis.

Technical Data

General specifications		
Switching function		2 x normally open (NO)
Output type		PNP
Description		Solenoid valve: monostable, function changeable 3/2- or 5/2-way valve, with manual override working pressure 2.5 ... 8 bar pneumatic connection: 1/4 NPT
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Operating current	I_L	0 ... 100 mA
Valve circuit		
Voltage		24 V DC
Power consumption		0.7 W
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2 VDI / VDE 3845
Ambient conditions		
Ambient temperature		-25 ... 60 °C (-13 ... 140 °F)
Mechanical specifications		
Connection (system side)		Cage tension spring terminals
Core cross section (system side)		1.5/2.5 mm² flexible/rigid
Tightening torque, fastening screws		≤ 5 Nm
Tightening torque, housing screws		1 Nm
Tightening torque, cable gland		M20 x 1.5 ; max. 7 Nm M12 x 1.5 ; max. 1.5 Nm

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Connection Assignment



System Description

The NBN3-F31K-E8-K is an inductive dual sensor for detecting and indicating the valve position OPEN/CLOSED of valve actuators. The sensors of the NBN3-F31K-E8-K are electrically operated as PNP normally open (NO) and are compatible with all commercially available control systems. The sensor indicates correct voltage supply with a green LED, while the current switching states and the control of the solenoid valve are indicated by yellow LEDs.

Information about the kit components
The kit consists of Pepperl+Fuchs standard components and standard components from FESTO.
You can find information about the Pepperl+Fuchs components via www.pepperl-fuchs.com by entering the part number or the type code in the website's search window.

Pepperl+Fuchs kit components

Part	Description
NBN3-F31K-E8-K	Inductive dual sensor for valve position feedback
BT65-F31-BY-EN	Actuator with highly visible valve position indicator for series F31 and F31K, including protective cover
	Mounting hardware including connecting cable, cable glands, etc.

You can find information about the FESTO components via www.festo.com by entering the part number or the type code in the website's search window.

FESTO kit components

Part	Description
VSNC-FTC-M52-MD-N14-FN	Solenoid valve
VACN-N-A1-1	Solenoid coil

Note
The FESTO kit components can only be ordered within the respective kit and are not available individually from Pepperl+Fuchs.

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