

# K-BLOCK<sup>™</sup> Solid State Proximity Switch Quarter-turn Position Indicator

#### **Features and Benefits**

- Solid state inductive proximity switches eliminate mechanical contacts.
- Two inductive switches in a sealed enclosure provide an end-of-travel sensor impervious to moisture.
- Multi-functional device is available up to 250 volts in AC or DC power supplies.
- Integral LEDs provide quick verification of circuit continuity when power is present.
- Enclosure constructed of engineered resin and potting for corrosion resistance.
- Rotating 'target puck' provides visual position indication.
- Compact size allows for installation in areas with limited space.
- Simplified design enables direct mounting on most Keystone and Tyco actuators and easy adaption to other guarter-turn actuators.







## K-BLOCK™ Quarter-turn Position Indicator

The K-BLOCK™ position indicator is a solid-state replacement for the mechanical switch boxes normally used to determine valve position.

The sensor consists of two inductive proximity switches in a compact, sealed housing. There are no mechanical contacts to wear and no contact bounce that can cause false signals.

A 'target puck' mounted on the actuator or valve shaft, has two metallic screws located 90 degrees apart. As the valve position changes, the sensor detects one or the other of these screws, providing individual, positive 'valve open' and 'valve closed' output signals, each with a visual LED indication.

K-BLOCK™ indicators provide NEMA 6 (IP67) ratings, making them an ideal choice for applications involving equipment hose-downs.

The K-BLOCK™ sensor is molded of an engineering resin that is highly resistant to aliphatic and aromatic hydrocarbons, oils, fats, hydraulic fluids and fuels.

K-BLOCK<sup>™</sup> is a trademark of Tyco International I td

## Pneumatic, Hydraulic and Electric Actuators

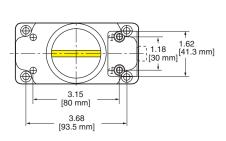
The K-BLOCK™ assembly mounts on any actuator supplied with a mounting plate in NAMUR or Tyco patterns. The resulting installation has a considerably lower profile and is more resistant to environmental factors than switch box assemblies.

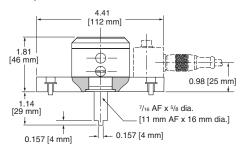
#### **Manual Valves**

The K-BLOCK™ assembly provides a simple, compact answer for remote monitoring of the position of most quarter-turn, manual valves.

### Simplified Installation

The K-BLOCK™ assembly mounts directly to most Keystone and Tyco rack and pinion actuator top accessory pads. The system provides correct sensor-to-target spacing. After installation, the arrow on the 'target puck' provides a visual indication of valve position.





## The Benefits of Solid-state Technology

Inductive proximity switches are solid-state sensors that detect the presence of a metallic object without physically contacting the target. A ferrite core and coil are used to generate a low-energy magnetic field that oscillates at a predetermined frequency. When a metal target enters the field, the field is dampened to the point that oscillations stop and the target object is detected.

Because there is no contact, there is no need for mechanical operators and the sensor can be sealed more effectively against moisture and other environmental contaminants.

#### Note

Mounting kit is ordered separately.

## K-BLOCK™ Model Number Descriptions

Model	Description	
792E-01	10 to 140 Volts AC/DC; 5-pin Mini-connector	
792E-02	10 to 140 Volts AC/DC; 5-pin Micro-connector	
792E-04	20 to 250 Volts AC/DC; Cable	

Model	Description
792E-05	10 to 36 VDC; 4-Pin Micro-connector
792E-08	Switch Intrinsically Safe; 7.5 to 15 VDC; Cable (flying lead 6') (NAMUR Electrical Spec.)

792E-100 Mounting kit for any of the above switches

## K-BLOCK™ Ordering Information

			Current at 20°C			
Model Number	Operating Voltage	Max. Inrush	Max. Load (per output)	Leakage	Electrical Connection (Termination)	Output
AC/DC Uni	ts					
792E-01	20-140 VAC	0.9 A for 20 ms	200 mA	0.8 mA	5-pin Mini†	N.O.
	50-60 Hz	0.5 Hz				
	10-140 VDC					
792E-02	20-140 VAC 50-60 Hz 10-140 VDC	0.9 A for 20 ms 0.5 Hz	200 mA	0.8 mA	5-pin Micro AC†	N.O.
792E-04	20-250 VAC	2.2 A for 20 ms	350 mA AC	<2.5 mA @ 250 VAC	6' [2 m] PVC cable	N.O.
	50-60 Hz	0.5 Hz	100 mA DC	<1.3 mA @ 110 VAC	1/4" dia., 22 AWG	
	20-250 VDC			<0.8 mA @ 24 VDC	[6.35 mm]	
DC Unit						
792E-05	10-36 VDC	Not Applicable	250 mA	0.7 mA	4-pin Micro DC†	N.O.
					PNP or NPN	
Intrinsicall	y Safe Unit*					
792E-08	7.5-15 VDC	Not Applicable	Not Applicable	Not Applicable	15' [5 m] blue	Not
	8.2 VDC				PVC cable	Applicable
	Nominal				1/4" dia., 22 AWG	
(1K	ohm source impeda	ance)			[6.35 mm]	

<sup>\*</sup> To be used with IS amplifiers.

# **Tyco Valves & Controls**

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<sup>†</sup> To order mating connections, contact local sales office.