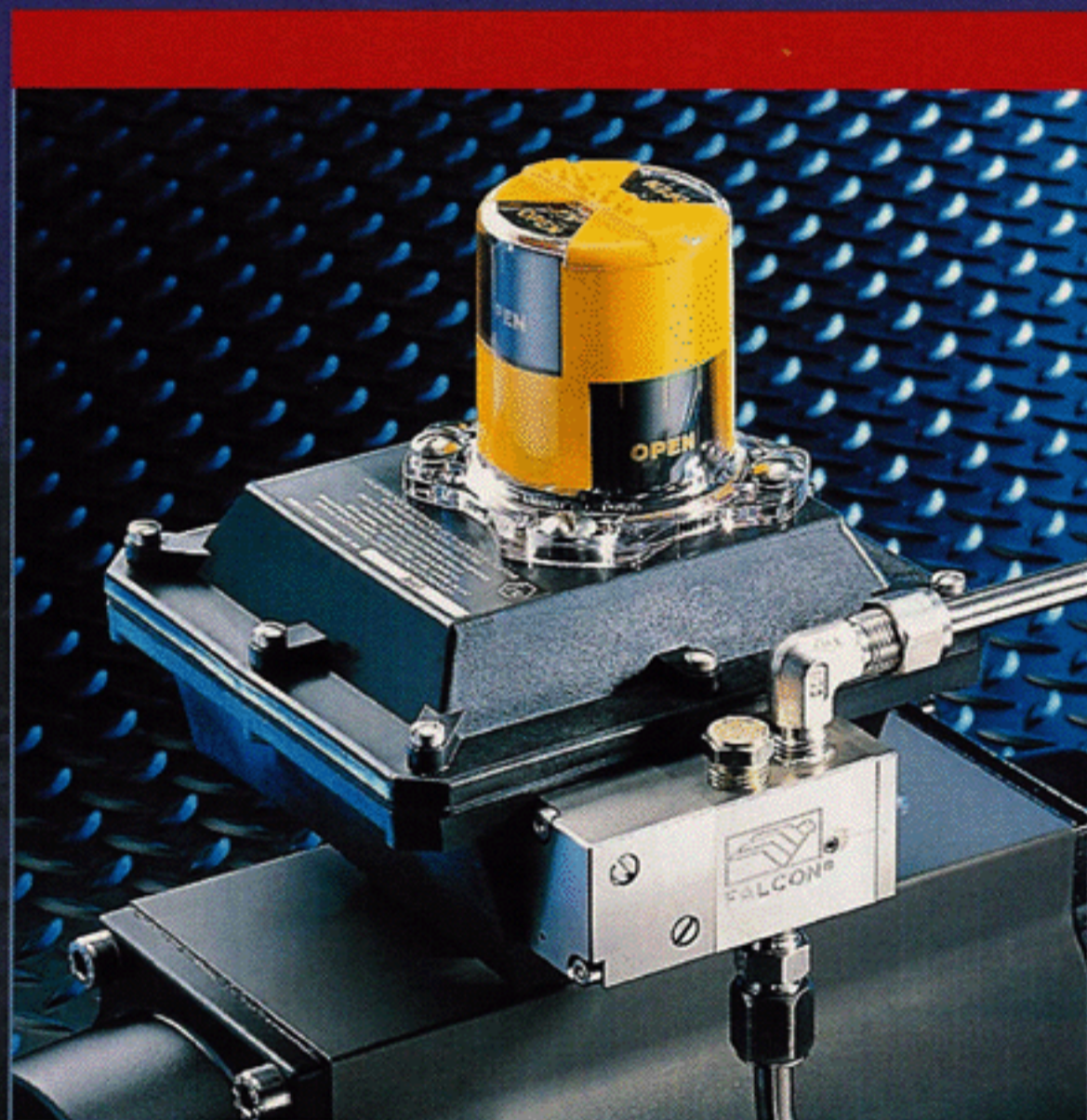


# ELIMINATOR

LISTED AND CERTIFIED TO CENELEC  
EEx me II T6 ZONE 1&2



THE FIRST VALVE POSITION  
AND CONTROL MONITOR  
TO ELIMINATE BARRIERS,  
JUNCTION BOXES, WIRING AND  
INSTALLATION COSTS.



# ELIMINATOR®

## A COST-EFFECTIVE VALVE POSITION AND CONTROL MONITOR FOR FLAMMABLE ATMOSPHERE SERVICE



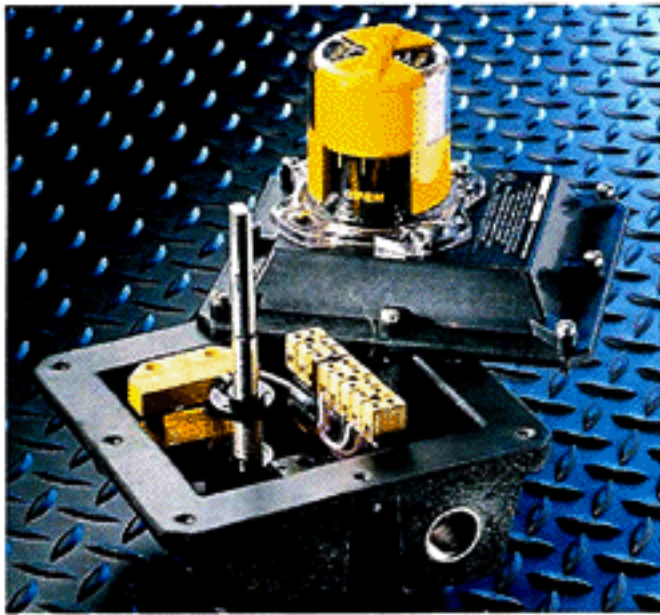
CENELEC  
EEx m e II T6  
ZONE 1 & 2

The Westlock Eliminator® is a highly engineered valve position monitor, junction housing and optional prewired, integrally mounted solenoid valve. IP67 and flammable atmospheres rated, the 3400/3700 Series eliminates the need for expensive intrinsically safe barriers and independent junction boxes by combining CENELEC approval methods (encapsulation and increased safety) to create a single, integrated device. Engineering and plant personnel now have the option to specify an extremely efficient valve monitoring system in one compact flammable atmospheres assembly.

Designed as an extremely reliable and cost efficient system to monitor and regulate process valves, the high cost of independent intrinsically safe barriers, junction boxes, mandatory wiring and labour is totally eliminated.

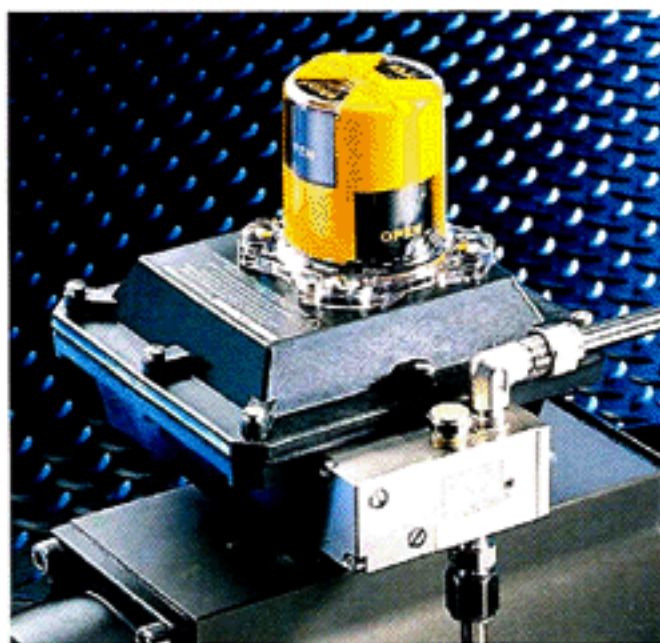
The Westlock Eliminator® is the first of its kind to be listed and certified to CENELEC EN50014, EN 50019, EN50028 for use in all gas groups Zone 1 & 2 flammable atmospheres.

### 3400 SERIES POSITION MONITOR



2 Magnum® Sensors

### 3700 SERIES CONTROL MONITOR



2 Magnum® Sensors and Falcon® Solenoid

### COMPARATIVE COST ANALYSIS

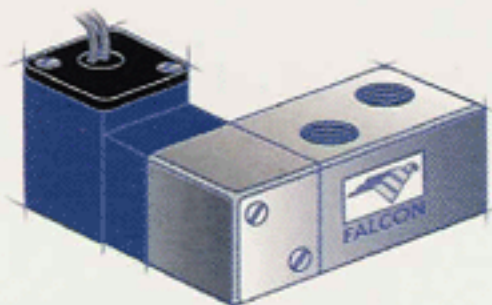
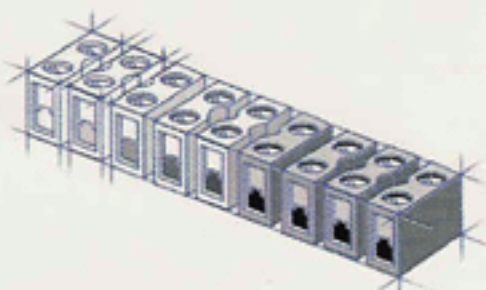
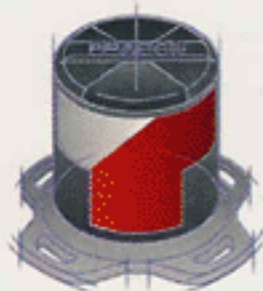
Intrinsically Safe (EEx "ia")		Encapsulation / Increased Safety (EEx m e)	
<b>CONVENTIONAL METHOD</b>		<b>ELIMINATOR® 3400</b>	
2 Sensors w/ Housing	£120	2 Sensors w/ Housing	£150
I.S. Barrier (Twin Channel)	95	I.S. Barrier (Twin Channel)	NR*
Safe Area Cabinet + Wiring	30	Safe Area Cabinet + Wiring	NR*
Labour (Cable & Glands)	30	Labour (Cable & Glands)	NR*
<b>TOTAL COST</b>	<b>£275</b>	<b>TOTAL COST</b>	<b>£150</b>

\*Not Required

Intrinsically Safe (EEx "ia")		Encapsulation / Increased Safety (EEx m e)	
<b>CONVENTIONAL METHOD</b>		<b>ELIMINATOR® 3700</b>	
2 Sensors w/ Housing	£120	2 Sensors w/ Housing	£340
Solenoid Valve	100	Solenoid Valve	included
Sensor Barrier (Twin Channel)	95	Sensor Barrier (Twin Channel)	NR*
Solenoid Barrier (Single Channel)	70	Solenoid Barrier (Single Channel)	NR*
Safe Area Cabinet + Wiring	30	Safe Area Cabinet + Wiring	NR*
Labour (Cable & Glands)	30	Labour (Cable & Glands)	NR*
<b>TOTAL COST</b>	<b>£445</b>	<b>TOTAL COST</b>	<b>£340</b>

\*Not Required

# WESTLOCK INTEGRATES THREE PRODUCTS UNDER ONE CENELEC CERTIFICATION.



## BEACON™

An impact and corrosion resistant valve position monitor capable of displaying exact valve position from any quadrant at distances of up to 50 metres. Start-up and operating personnel avoid being placed in physically awkward or dangerous situations while attempting to ascertain valve position.

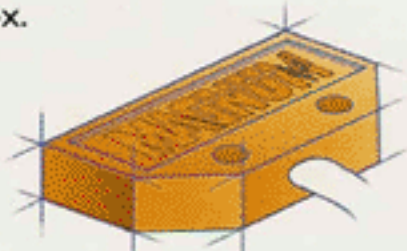
## TOUCHSET™ CAMS

Cams, secured by set screws, continually lose calibration due to vibration inherent in all pipe-lines. Self-locking Touchset™ cams are fastened to a splined shaft and can be set by hand in seconds. Since there are no set screws, the cams will never slip out of adjustment.



## TERMINAL BLOCK

The Eliminator® features an elevated prewired terminal block which is designed for ease of wiring. The engineered resin enclosure additionally functions as a junction box.



## MAGNUM® SENSORS

Proximity sensors, encapsulated and hermetically sealed against explosive gases and liquids, provide maximum moisture and corrosion resistance. The Magnum® type proximity sensor eliminates attack from corrosive atmospheres while being totally compatible with all computers and PLC's.

## INTEGRATED SOLENOID

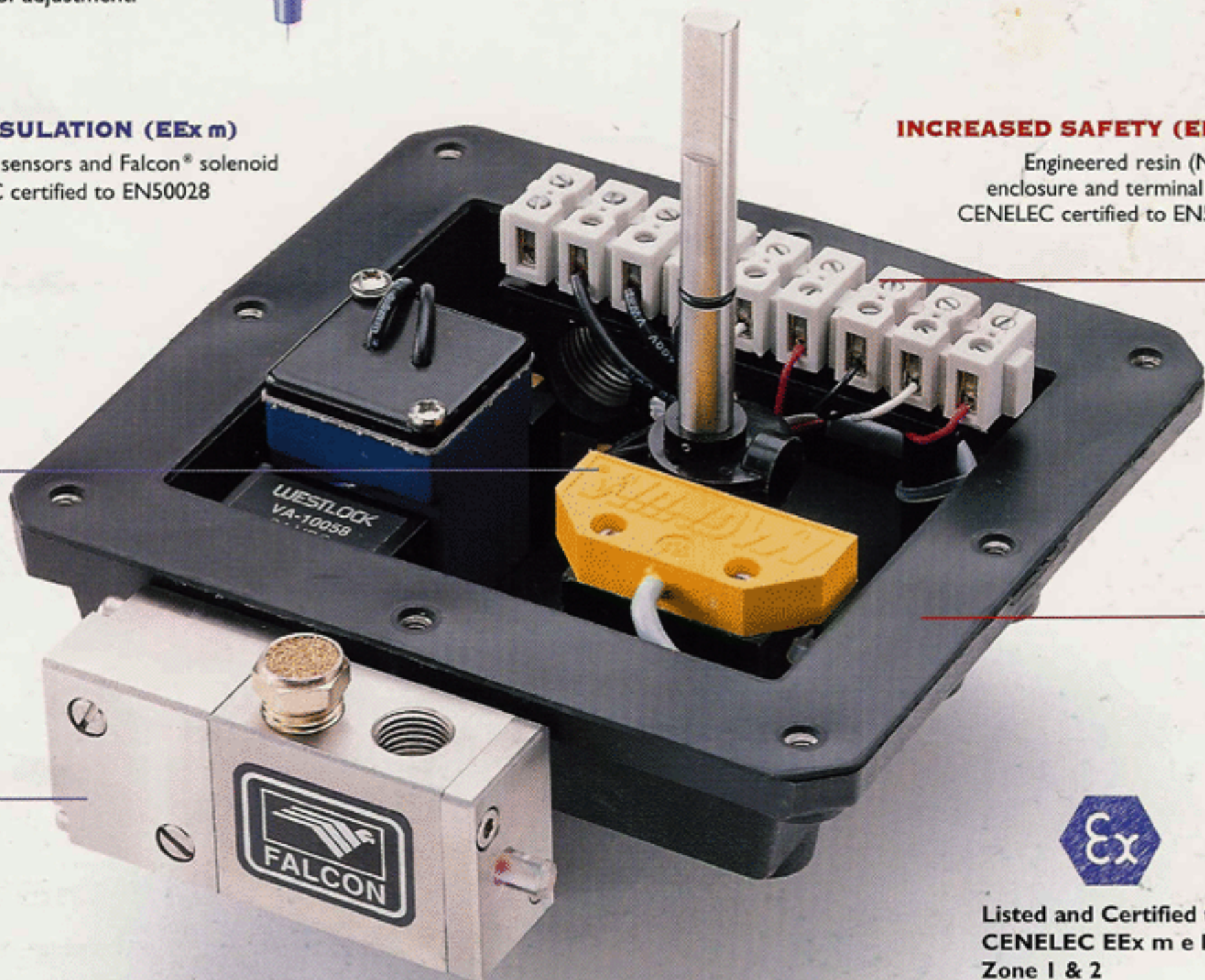
The Westlock Falcon® Series of integrated solenoid valves is specifically engineered to address low power valve actuation requirements. When interfaced with computer-based process control systems requiring low power energy supplies, the utilisation of Falcon solenoids translates into immediate economic benefits. Required power levels for actuation control are efficiently reduced to 5% of the energy required for operation of conventional valves. Integrated within the Eliminator® housing and capable of operating in any position, Falcon solenoids are available in a wide range of voltages and materials. Both 3-way for spring return and 4-way for double acting actuators carry standard Cv ratings of .3, .5, 1.2 and 3.5.

## ENCAPSULATION (EEx m)

Magnum® sensors and Falcon® solenoid CENELEC certified to EN50028

## INCREASED SAFETY (EEx e)

Engineered resin (Nylon) enclosure and terminal block CENELEC certified to EN50019



Listed and Certified to  
CENELEC EEx m e II T6  
Zone 1 & 2

# TECHNICAL SPECIFICATIONS

## CERTIFICATION

Listed and Certified to CENELEC EEx m e II T6 Zone 1 & 2

Eliminator Encapsulated / Increased Safety Position and Control Monitor for use in Hazardous Locations (Zone 1 & 2)

Encapsulated/Increased safety equipment refers to an apparatus certified to CENELEC standards which is designed so as the components capable of igniting an explosive atmosphere by either sparking or heating are enclosed in a compound in such a way to prevent the possibility of ignition. The encapsulation protection is additionally combined with increased measures to prevent any possibility of excessive heat, arcs or sparks, igniting the surrounding flammable gasses or combustible materials.

**CERTIFICATION:** CENELEC standard EN50014 / EN50019 / EN50028. Encapsulation / Increased Safety EEx m e II T6 suitable for installation in Zone 1 & 2 hazardous areas.

## DIMENSIONAL DATA (mm)

### ELIMINATOR 3400 / 3700

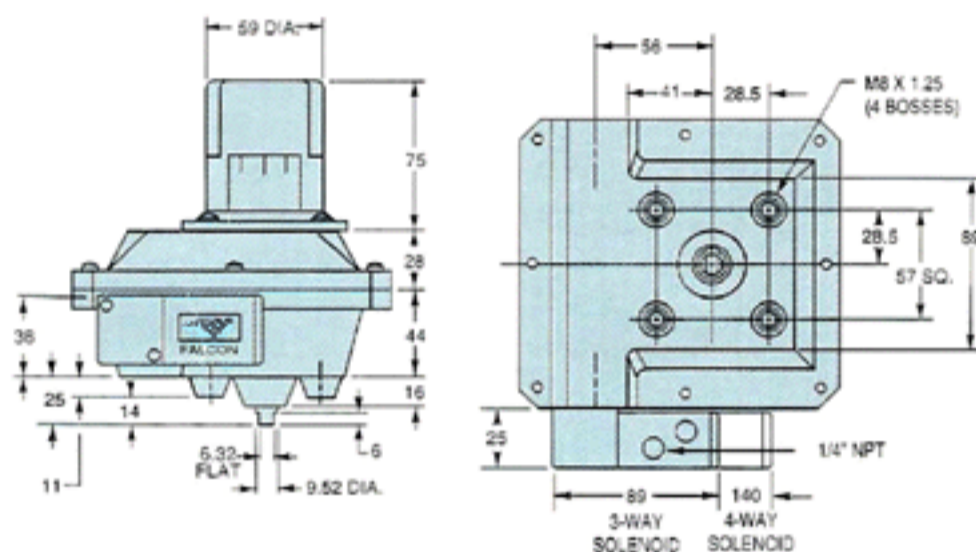
Enclosure: Nylon (IP67)

Sensor: Proximity (High Current Magnum)

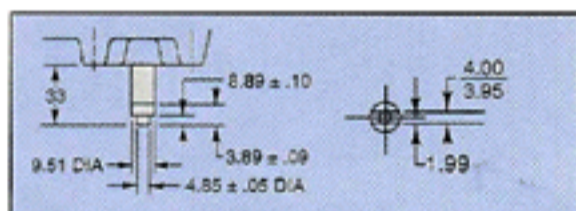
Terminal Block: EEx e Rated

Conduit Entrance: M20, PG 13.5, 3/4" NPT

CENELEC



OPTIONAL  
NAMUR SHAFT  
Model 3400 & 3700



## MAGNUM SENSORS

Contact Arrangement	SPST or SPDT, Form C
Contacts	Pure Tungsten
Contact Rating	3A/120 VAC; 2A/24 VDC; 1.5A/240 VAC
Operating Time	3.0 m Sec.
Initial Contact Resistance	.50 Ohms (Max)
Seal	Hermetic (inert gas) + Encapsulation
Housing (Flame Retardant)	High Impact Valox®
Approvals	UL SF Ex
Temp. Rating (°F)	(-20 to +200°F)
Warranty	5 Years
Operational Life	600,000 Cycles (full rated load)

## FALCON SOLENOID

Ex CENELEC Encapsulated (EEx m)

Body Construction	Brass, S/S, Aluminium, Delrin		
Mechanical Configuration	3-Way or 4-Way		
Electrical Configuration	NC		
Operating Pressure	3 to 8 bar		
Cv Factor	.3, .5, 1.2 or 3.5		
Operating Voltage (Nom.)	24 VDC	110 VAC	240 VAC
Wattage (Nominal)	.5W	3.5W	3.5W
Operating Current (Nom.)	20 mA	29.1 mA	16 mA
Coil Resistance	1500 ohms	1000 ohms	2700 ohms
Response Time	20 ms		
Operating Media	Air, Inert Gas 20 micron filtration		
Tubing Connection	1/4" NPT		
Temperature Classification	T6 (85°C)		
Temperature Rating	-10° to 55°C		
Operations	1,000,000 (Typ)		
Mounting Configuration	Any Position		

## ORDERING GUIDE

Eliminator Type	Cover	Sensors	Beacon	Shaft	Falcon Low-Power Solenoid (Series 3700 Only)									
					BODY	VOLTAGE	Configuration							
3400 Series Position Monitor	Beacon	4	Magnum	9	Black/Yellow	BY	Standard	S	Aluminium	A	24 VDC	C	3-WAY	
	Arrow	5			Green/White	AG	NAMUR	N	Brass	B	110 VAC	H	.3 Cv. A	
3700 Series Control Monitor	Flat Cover	6			Blue/White	AB			Stainless	C	220 VAC	J	.5 Cv. B	
					Red/White	AR		Delrin	D					1.2 Cv. C
					Green/Red	GR								3.5 Cv. D
													.3Cv. E	
													.5 Cv. F	
													1.2 Cv. G	
													3.5 Cv. H	

**Ordering Example:** Quantum Eliminator with Beacon, 2-SPDT Magnum sensors, and .3 Cv/3-way Falcon solenoid: 3749-BY-N-CCA.

For Special requirements: Please consult factory.

Beacons for 3-way control valves available upon request.

**Westlock Controls Corporation**

280 Midland Avenue

Saddle Brook, NJ 07663

Phone: 201-794-7650 • Fax: 201-794-0913

**Westlock Controls Limited**

ChapmanWay, Tunbridge Wells

Kent, England • TN2 3EF

Phone: 01892-516277 • Fax: 01892-516279

**Westlock Equipamentos De Controle Ltda.**

Calçada das Betulas, 65 Centro Comercial de Alphaville

Barueri - SP - Brasil - 06487-080

Tel: (011) 725.5178 ou 725.4161 • Fax: (011) 725.3660