

QUANTUM™ ROTARY CONTROL MONITORS

INCREASED SAFETY/ENCAPSULATION – ATEX/IEC

Fully integrated and encapsulated rotary valve control monitors. Simple to install, they offer a wide range of single or dual coil Falcon solenoid valves



FEATURES

- Increased Safety/Encapsulation design meeting a wide range of worldwide approvals.
- Cost effective alternative to Exd units in specific applications.
- Quantum enclosures integrate position sensors and low power solenoid valves into a single unit.
- Solenoid coils integrated within Quantum housing.
- Choice of factory pre-wired 3/2 and 5/2 way Falcon solenoid valves.
- Strong durable Beacon™ offers 360° visual indication in a choice of styles and colors.
- Touch set cams are hand adjustable, spring loaded and self-locking providing quick calibration of position switches and sensors.
- Terminal strips are pre-wired and numbered for ease of use.
- Additional conduit for easy field wiring and mounting accessories as standard.
- Wide range of switches and sensors.
- Standardized mounting pattern for easy adaptation to common bracketry.
- Range of drive shaft options.
- Engineered resin enclosure is robust, lightweight and provides exceptional chemical, UV and impact resistance.
- Aluminum enclosures with ultra-low copper content (0.2% maximum) suitable for corrosive environments.
- Robust stainless steel enclosure option.
- IP rated plugs certified where applicable.

TECHNICAL DATA

Agency approvals

Area classification (ATEX/IEC)

Ex II 2GD
Ex mb e IIC T* Gb
Ex tb IIIC T*°C Db IP6X

Enclosure standards (IEC)

3700/8700 series

IP66/67

Switches

3700/8700 series

Magnum SPDT (hermetically sealed proximity type) switches

Enclosures

3700/8700 series

Engineered resin
Aluminum
Stainless steel

Falcon solenoid valves

C_v

Materials

Choice of 1.1, 3.5
Aluminum and stainless steel

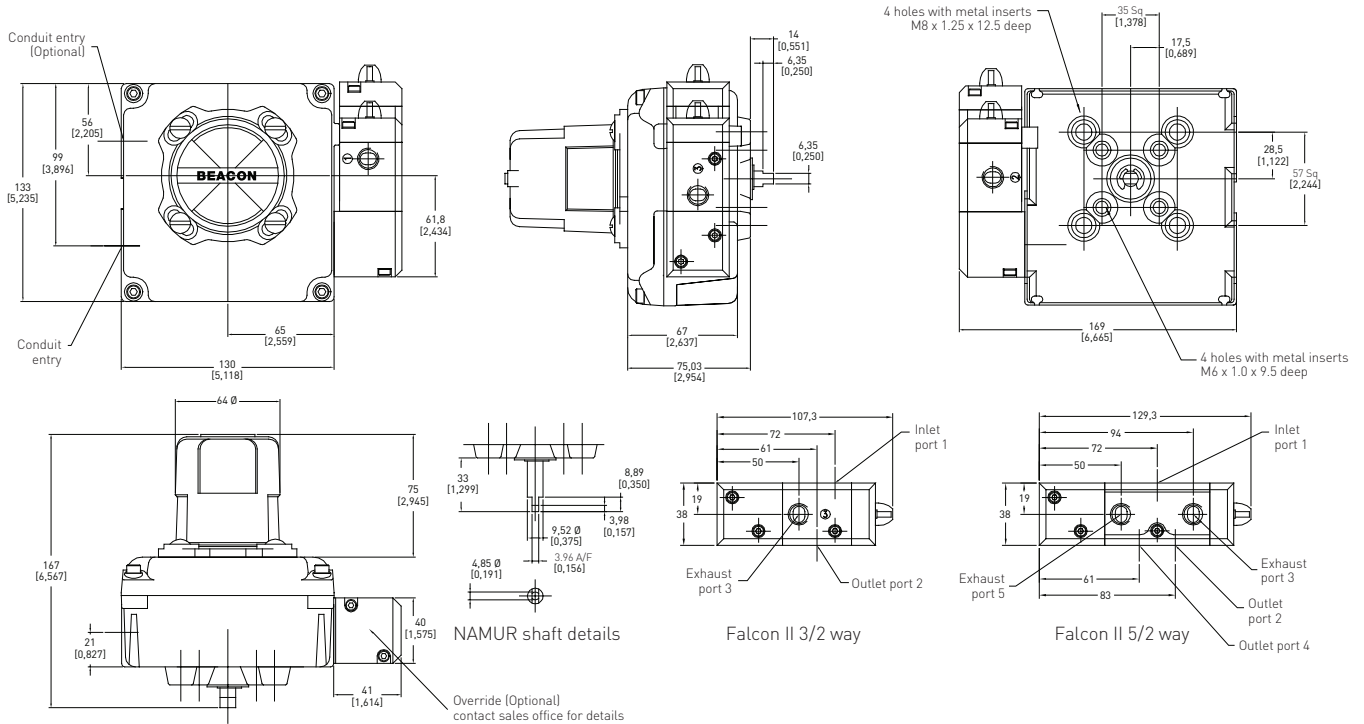
GENERAL APPLICATION

Quantum control monitors combine consistent and accurate valve monitoring with the control of automation process valves using integrated position sensors and low power solenoid valves in a single compact unit.

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3700 SERIES RESIN ENCLOSURE DIMENSIONS



Dimensions in mm, imperial dimensions (inches) in parenthesis

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Engineered resin
Shaft and hardware	Stainless steel
Bushing	Nylon
Beacon visual indicator	Co-polyester

Drive shaft

Westlock standard	Double-D with 1/4" A/F
NAMUR standard	NAMUR standard VDI/VDE 3845

Available switches

	Magnum, SPDT hermetically sealed magnetic proximity switches, with tungsten contacts
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SOLENOID VALVES

The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and Cv to best suit your application. See the Falcon II data sheet for more information.



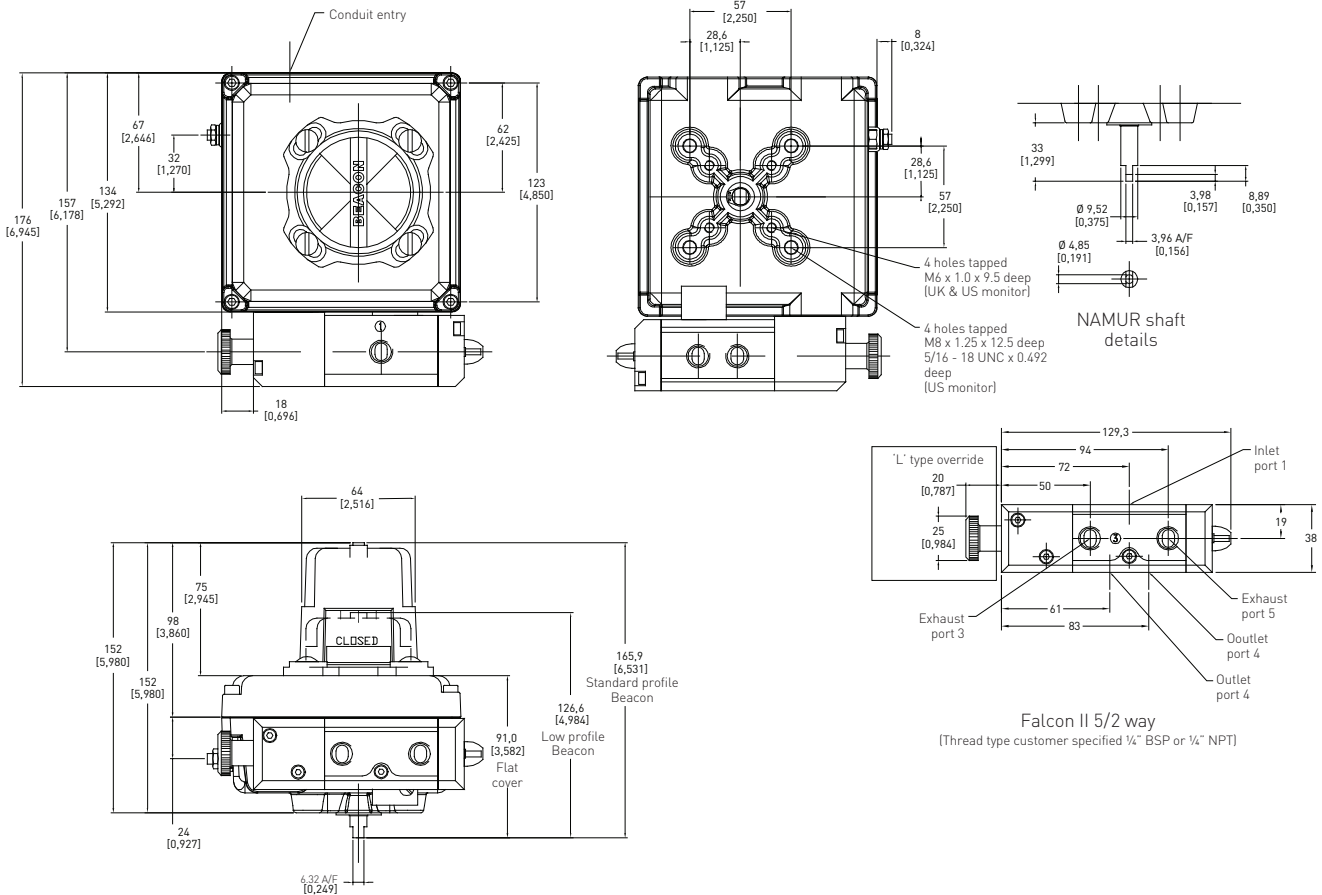
NOTES

1. See selection guide for standard conduit entries
2. See switches & sensors data sheet for further information
3. Please consult your sales office for any other requirements

QUANTUM™ ROTARY CONTROL MONITORS

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3700 SERIES ALUMINIUM AND STAINLESS STEEL ENCLOSURE DIMENSIONS



Dimensions in mm, imperial dimensions (inches) in parenthesis

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Aluminum with powder coat finish Stainless steel with electropolished finish
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze (aluminum enclosure) PTFE (stainless steel enclosure)
Beacon visual indicator	Co-polyester

Drive shaft

Westlock standard	Double-D with 1/4" A/F
NAMUR standard	NAMUR standard VDI/VDE 3845

Available switches

Magnum, SPDT hermetically sealed magnetic proximity switches, with tungsten contacts

SOLENOID VALVES

The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C_v to best suit your application. See the Falcon II data sheet for more information.



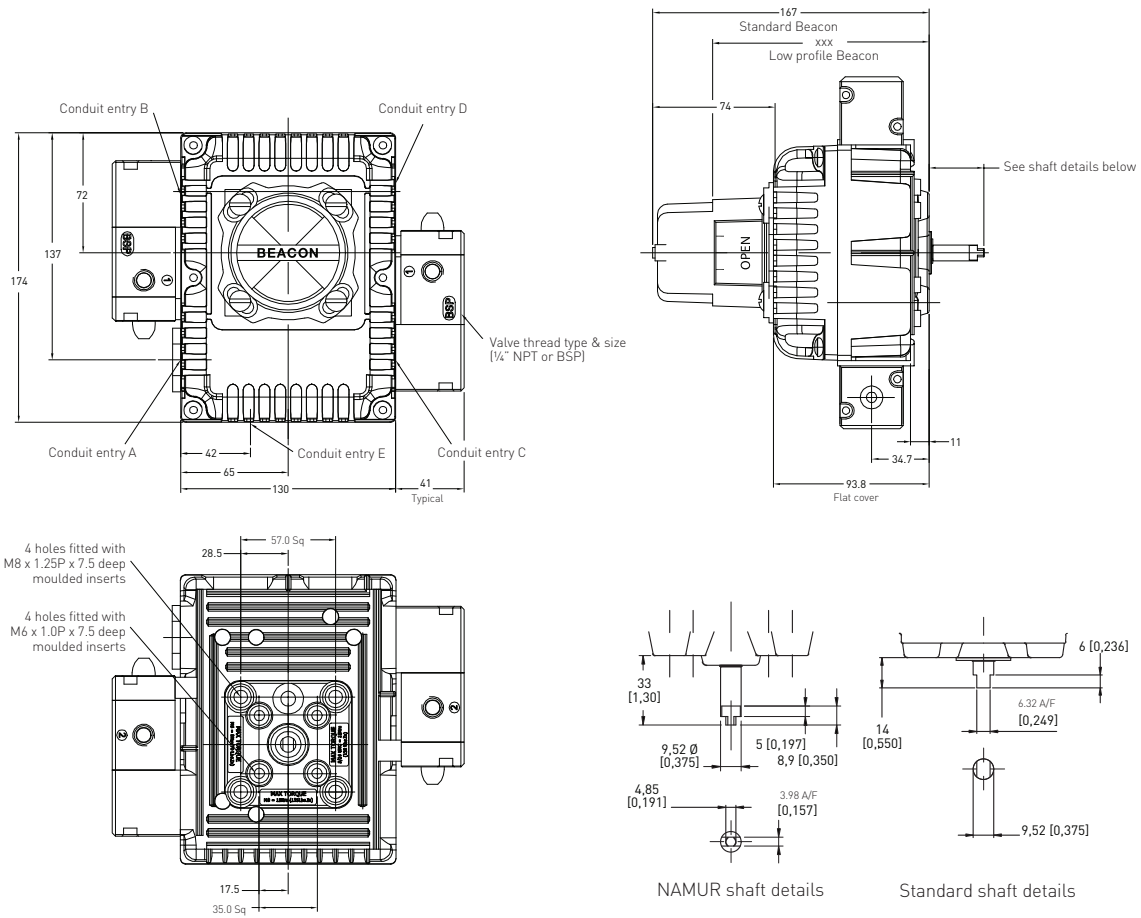
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8700 SERIES RESIN ENCLOSURE DIMENSIONS



Dimensions in mm, imperial dimensions (inches) in parenthesis

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Engineered resin
Shaft and hardware	Stainless steel
Bushing	Nylon
Beacon visual indicator	Co-polyester

Drive shaft

Westlock standard	Double-D with 1/4" A/F
NAMUR standard	NAMUR standard VDI/VDE 3845

Available switches

	Magnum, SPDT hermetically sealed magnetic proximity switches
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SOLENOID VALVES

The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and Cv to best suit your application. See the Falcon II data sheet for more information.

NOTES

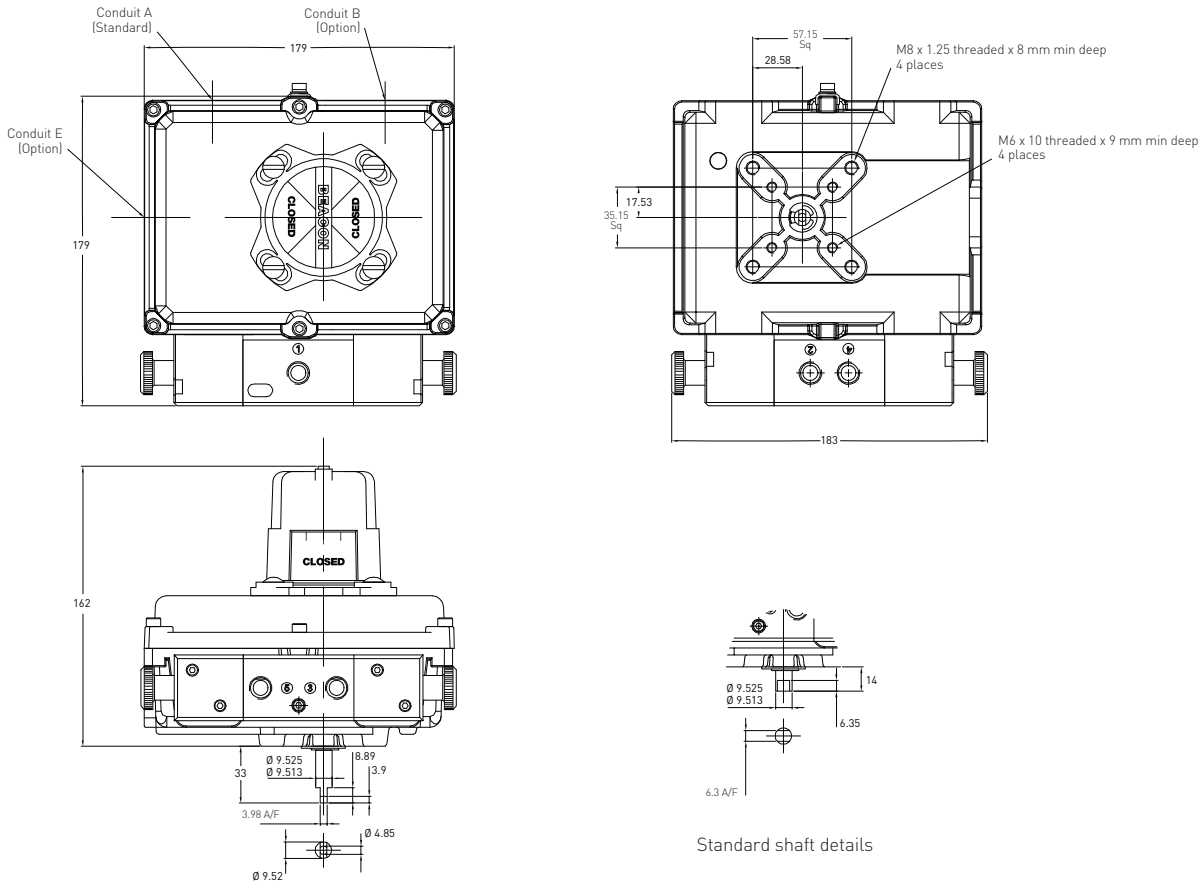
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QUANTUM™ ROTARY CONTROL MONITORS

INCREASED SAFETY/ENCAPSULATION – ATEX/IEC

8700 SERIES ALUMINIUM AND STAINLESS STEEL ENCLOSURE DIMENSIONS



Dimensions in mm, imperial dimensions (inches) in parenthesis

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Aluminum with powder coat finish Stainless steel with electropolished finish
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze (aluminum enclosure) PTFE (stainless steel enclosure)
Beacon visual indicator	Co-polyester

Drive shaft

Westlock standard	Double-D with 1/4" A/F
NAMUR standard	NAMUR standard VDI/VDE 3845

Available switches

Magnum, SPDT hermetically sealed magnetic proximity switches

SOLENOID VALVES

The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C_v to best suit your application. See the Falcon II data sheet for more information.

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QUANTUM™ INCREASED SAFETY ROTARY CONTROL MONITORS

3700/8700 SERIES SELECTION GUIDE

Housing

- 37 3700 with flanged lid (single coil)
- 87 8700 with flanged lid (single and dual coil)

Cover style

- 4 With Beacon
- 6 Flat cover

Switch type

- 9 Magnum proximity switch
- 0 No switches fitted

Material

- A Aluminum
- R Engineered resin
- S Stainless steel

Beacon type and color

BY	Black/Yellow	B1	BM3-1 pattern 90°
LY	Black/Yellow (low profile)	B3	BM3-3 pattern 90°
AR	ANSI Red/White	B5	BM3-5 pattern 90°
GR	Green/Red	B7	BM3-7 pattern 180°
00	No Beacon fitted	B9	BM3-9 pattern 180°

Drive shaft type

- S Westlock standard – ¼" A/F (6.32 mm)
- N NAMUR standard shaft – VDI/VDE 3845
- * Non-standard (consult sales office)

Solenoid body material

- A Anodized aluminium
- E Stainless steel

Solenoid coil voltage

C	24 V DC	H	90-120 V AC
D	24 V AC	J	220-240 V AC

Solenoid valve specification

[¼" BSP entry; 1.1 C _v]		[¼" NPT entry; 1.1 C _v]	
K	3/2 way - fail closed	U	3/2 way - fail closed
L	3/2 way - fail open	V	3/2 way - fail open
Q	5/2 way - fail closed	1	5/2 way - fail closed
S	5/2 way - dual coil fail last	3	5/2 way - dual coil fail last

Switch/sensor quantity

- 0 No switch/sensor fitted
- 1 One switch/sensor
- 2 Two switches/sensors
- 3 Three switches/sensors (consult sales office)
- 4 Four switches/sensors (consult sales office)

Conduit entries supplied

- 1 One entry (consult sales office)
- 2 Two entries (consult sales office)
- 3 Three entries (consult sales office)
- 4 Four entries (consult sales office)

Unit specification

- AAA Standard build- M20 conduit entries
- ADZ ¾" NPT conduit entries
- DAV M25 conduit entries
- FAN ½" NPT conduit entries
- *** Non-standard material – (consult sales office)

Certification

- A ATEX
- I IECEx
- * Other options (consult sales office)

Revision

- R* Internal revision #

87 4 9 A BY N A C K 2 2 AAA A R1 = Model number **8749ABYNACK22AAA-AR1**

NOTES

- Please contact your sales office for guidance on selecting the best possible combination for your control and monitoring requirements.
- See Hazardous area classification technical bulletin for further information on global standards.



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Westlock. We reserve the right to change designs and specifications without notice.