

## QUANTUM™ ROTARY CONTROL MONITORS

INTRINSICALLY SAFE – ATEX/IEC

Fully integrated rotary valve control monitors that are certified to intrinsically safe standards. They offer a choice of enclosure materials, switching options and single or dual coil Falcon solenoid valves



### FEATURES

- Intrinsically Safe design meeting a wide range of worldwide approvals.
- 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.
- Inductive NAMUR sensor rated for IS applications.
- Magnum switches with rhodium contacts for longer contact life.
- 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.
- Rugged stainless steel option.
- IP rated plugs certified where applicable.

### TECHNICAL DATA

#### Agency approvals

Area classification (ATEX/IEC)  
3600/8600 series

Ex II \*GD  
Exia II\* T\* G\*  
Ex t IIIC T135°C Da IP6X

Enclosure standards (IEC)  
3600/8600 series

Pepperl + Fuchs inductive NAMUR sensors  
V3 SPDT mechanical switches, with gold-plated contacts  
Magnum, SPDT (hermetically sealed proximity type)  
switches with rhodium contacts

#### Enclosures

3600/8600 series

Engineered resin  
Aluminum  
Stainless steel

#### Falcon solenoid valves

C<sub>v</sub>  
Materials

Choice of 1.1, 3.5  
Aluminum and stainless steel

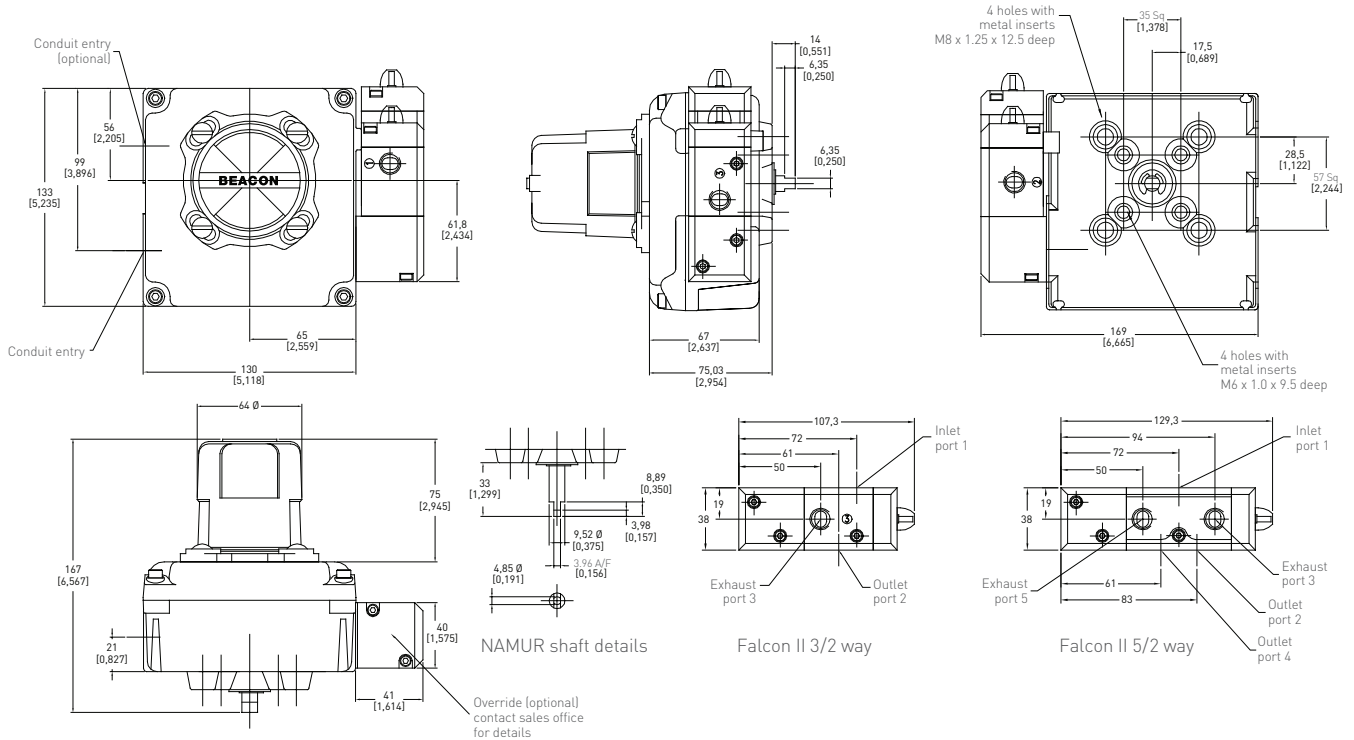
### GENERAL APPLICATION

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.

# QUANTUM™ ROTARY CONTROL MONITORS

## INTRINSICALLY SAFE – ATEX/IEC

### 3600 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

	Pepperl + Fuchs model NJ2-V3-N
	V3 SPDT mechanical switches, with gold-plated contacts
	Magnum, SPDT (hermetically sealed proximity type) switches with rhodium contacts

### 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

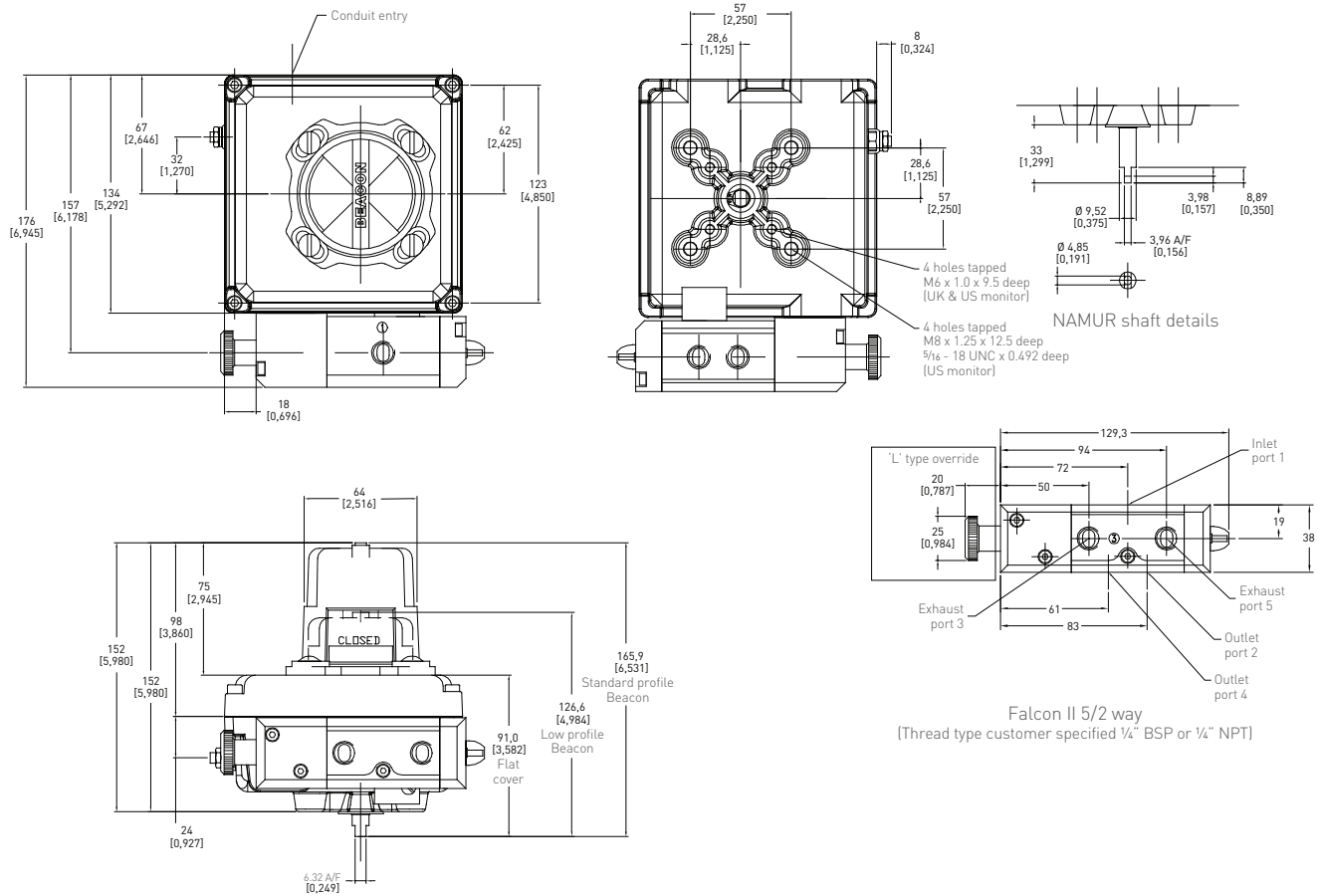
1. See selection guide for standard conduit entries
2. See switches & sensors data sheet for further information
3. Please consult your sales office for any other requirements



# QUANTUM™ ROTARY CONTROL MONITORS

INTRINSICALLY SAFE – ATEX/IEC

## 3600 SERIES ALUMINUM 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	PTFE (stainless steel) Oil impregnated bronze (aluminum 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

	Pepperl + Fuchs model NJ2-V3-N
	V3 SPDT mechanical switches, with gold-plated contacts
	Magnum, SPDT (hermetically sealed proximity type) switches with rhodium contacts

### NOTES

1. See selection guide for standard conduit entries
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### SOLENOID VALVES

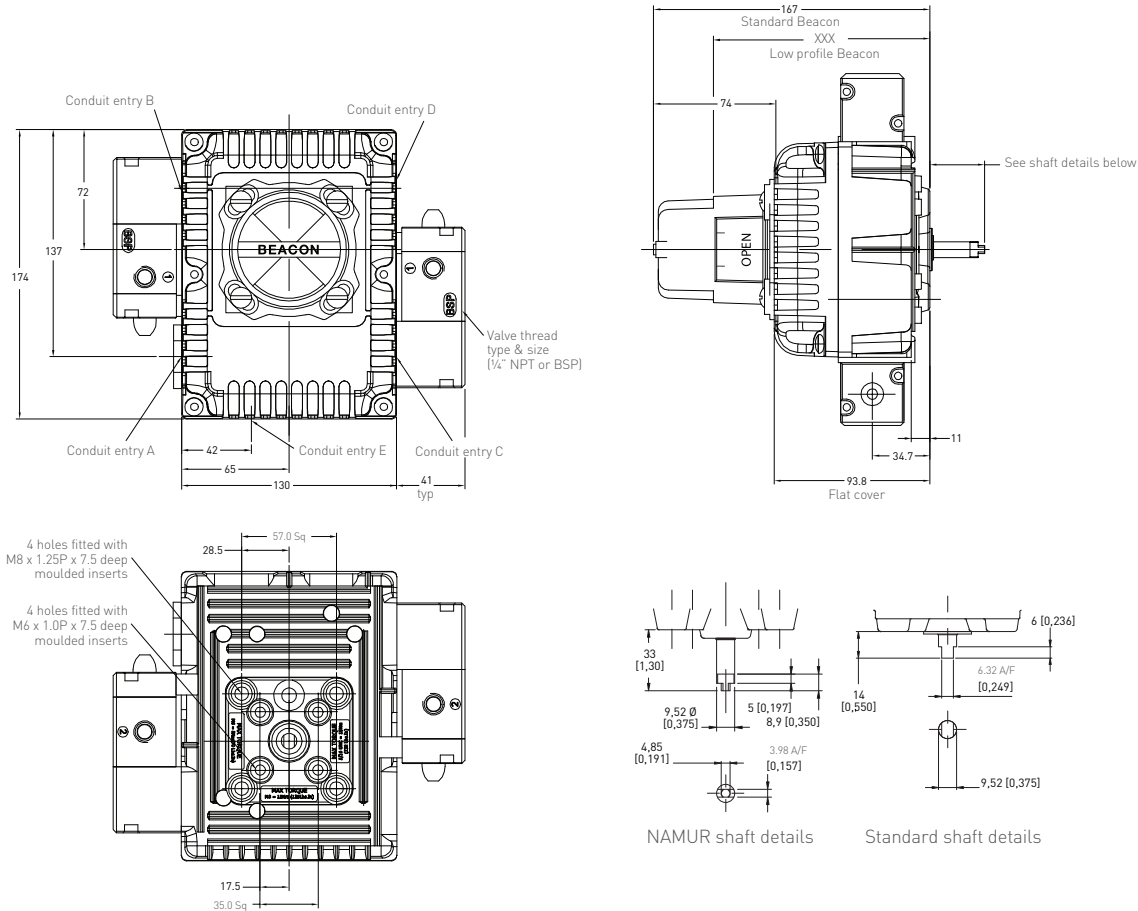
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C<sub>v</sub> to best suit your application. See the Falcon II data sheet for more information.



# QUANTUM™ ROTARY CONTROL MONITORS

## INTRINSICALLY SAFE – ATEX/IEC

### 8600 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

	Pepperl + Fuchs model NJ2-V3-N
	V3 SPDT mechanical switches, with gold-plated contacts
	Magnum, SPDT (hermetically sealed proximity type) switches with rhodium contacts

### NOTES

1. See selection guide for standard conduit entries
2. See switches & sensors data sheet for further information
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### SOLENOID VALVES

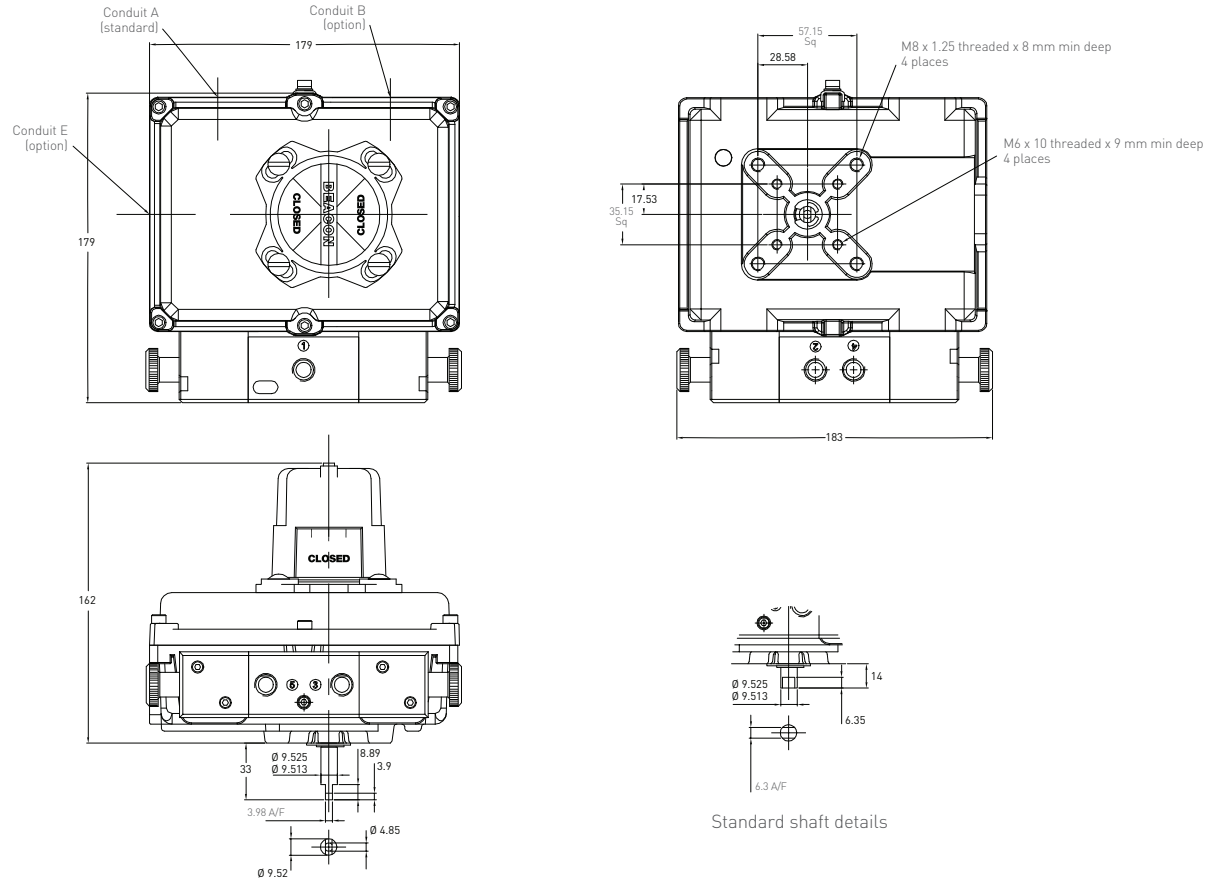
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C<sub>v</sub> to best suit your application. See the Falcon II data sheet for more information.



# QUANTUM™ ROTARY CONTROL MONITORS

INTRINSICALLY SAFE – ATEX/IEC

## 8600 SERIES ALUMINUM 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	PTFE (stainless steel) Oil impregnated bronze (aluminum 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

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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  $C_v$  to best suit your application. See the Falcon II data sheet for more information.

### NOTES

1. See selection guide for standard conduit entries
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# QUANTUM™ INTRINSICALLY SAFE ROTARY CONTROL MONITORS

## 3600/8600 SERIES SELECTION GUIDE

<b>Housing</b>															
36	3600 (single coil)														
86	8600 (single and dual coil)														
<b>Cover style</b>															
4	With Beacon														
6	Flat cover														
<b>Switch type</b>															
5	Microswitch SPDT gold plated contacts							9	Magnum XT90 rhodium contact switch						
7	Inductive NAMUR sensor							0	No switches fitted						
<b>Material</b>															
A	Aluminum														
R	Engineered resin														
S	Stainless steel														
<b>Beacon type and color</b>															
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°									
<b>Drive shaft type</b>															
S	Westlock standard – 1/4" A/F (6.32 mm)														
N	NAMUR standard shaft – VDI/VE 3845														
*	Non-standard (consult sales office)														
<b>Solenoid body material</b>															
A	Anodized aluminum														
E	Stainless steel														
<b>Solenoid coil voltage</b>															
C	24 V DC														
<b>Solenoid valve specification</b>															
<b>[1/4" BSP entry; 1.1 Cv]</b>								<b>[1/4" NPT entry; 1.1 Cv]</b>							
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						
<b>Switch/sensor quantity</b>															
0	No switch/sensor fitted							3	Three switches/sensors						
1	One switch/sensor							4	Four switches/sensors						
2	Two switches/sensors														
<b>Conduit entries supplied</b>															
2	Two entries							3	Three entries						
								4	Four entries						
<b>Unit specification</b>															
AAA	Standard build- M25 conduit entries														
ADZ	3/4" NPT conduit entries														
DAV	M25 conduit entries														
FAN	1/2" NPT conduit entries														
***	Non-standard material														
<b>Certification</b>															
A	ATEX & IECEx														
*	Other options														
<b>Revision</b>															
R*	Internal revision #														
86	4	7	A	BY	N	A	C	K	2	2	AAA	A	R1	= Model number <b>8647ABYNACK22AAA-AR1</b>	

### NOTES

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