

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 and 5 way Falcon solenoid valves.
- Solenoid valves with a choice of  $C_v$  ratings and coil voltage.
- Inductive NAMUR sensor rated for IS applications.
- Magnum switches with rhodium contacts for use with low power I/O's for longer contact life.
- Strong durable Beacon™ offers 360° visual indication available 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 with generous working space for ease of use.
- Additional conduit for easy field wiring and mounting accessories as standard.
- Switch stabilization plate.
- 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 yet lightweight; allows broad operating temperatures and provides exceptional chemical, UV and impact resistance.
- Aluminum enclosures with ultra-low copper content (0.2% maximum) ensure robust performance in 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
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Enclosure standards (IEC)

3600/8600 series	IP66/67
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#### Switches

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
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#### Enclosures

3600/8600 series	Engineered resin Aluminum Stainless steel
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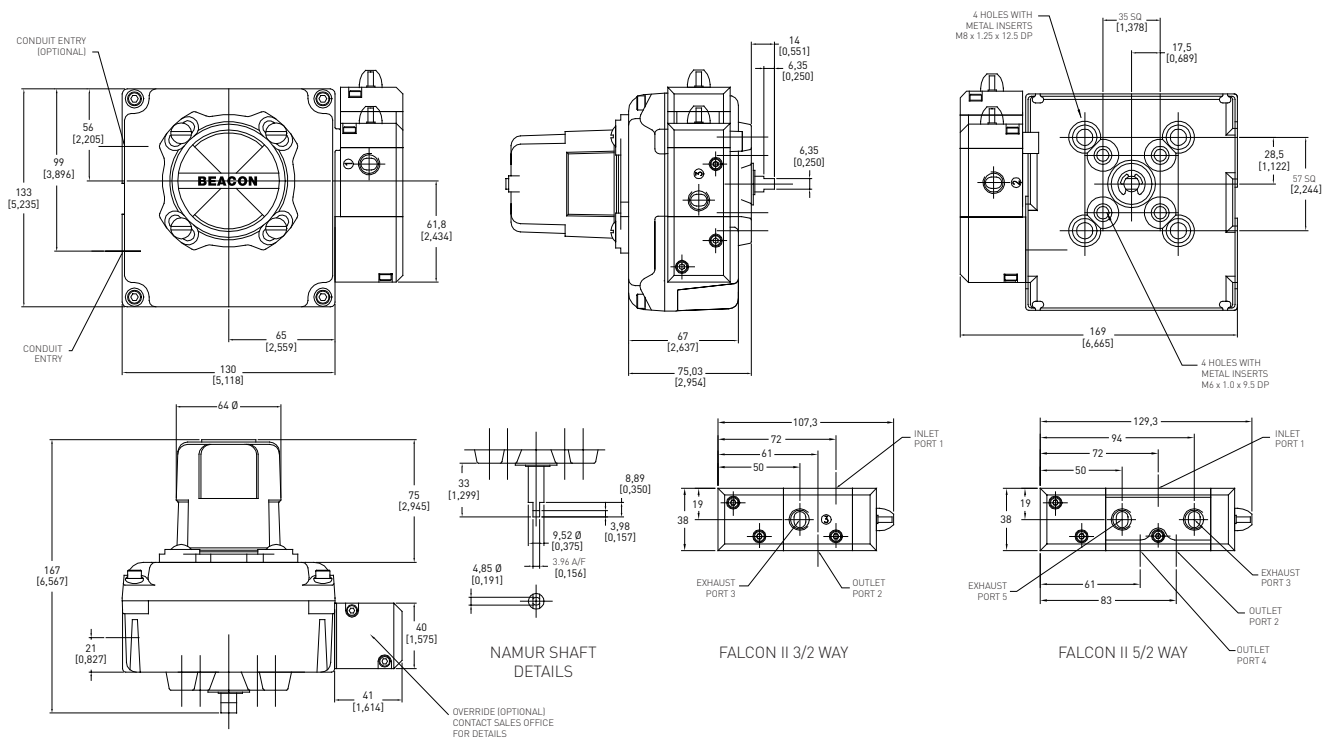
#### Falcon solenoid valves

$C_v$	Choice of 1.1, 3.5
Materials	Aluminum and stainless steel

# Quantum™ Rotary Control Monitors

Intrinsically Safe – ATEX/IEC

## 3600 Series resin enclosure dimensions



Dimensions in mm, where available imperial dimension (inches) in parentheses

## Technical specifications

### Materials of construction

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

### Drive shaft

Standard	Double-D with 1/4" A/F
Option	NAMUR standard VDI/WDE 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

Please consult your sales office for any other requirements

## Notes

### Conduit entries

Quantum control monitors are available with a choice of conduit entries. Please see the selection guide for standard entries.

### Switches and sensors

For further information see our switches and sensors data sheet.

### Solenoid valves

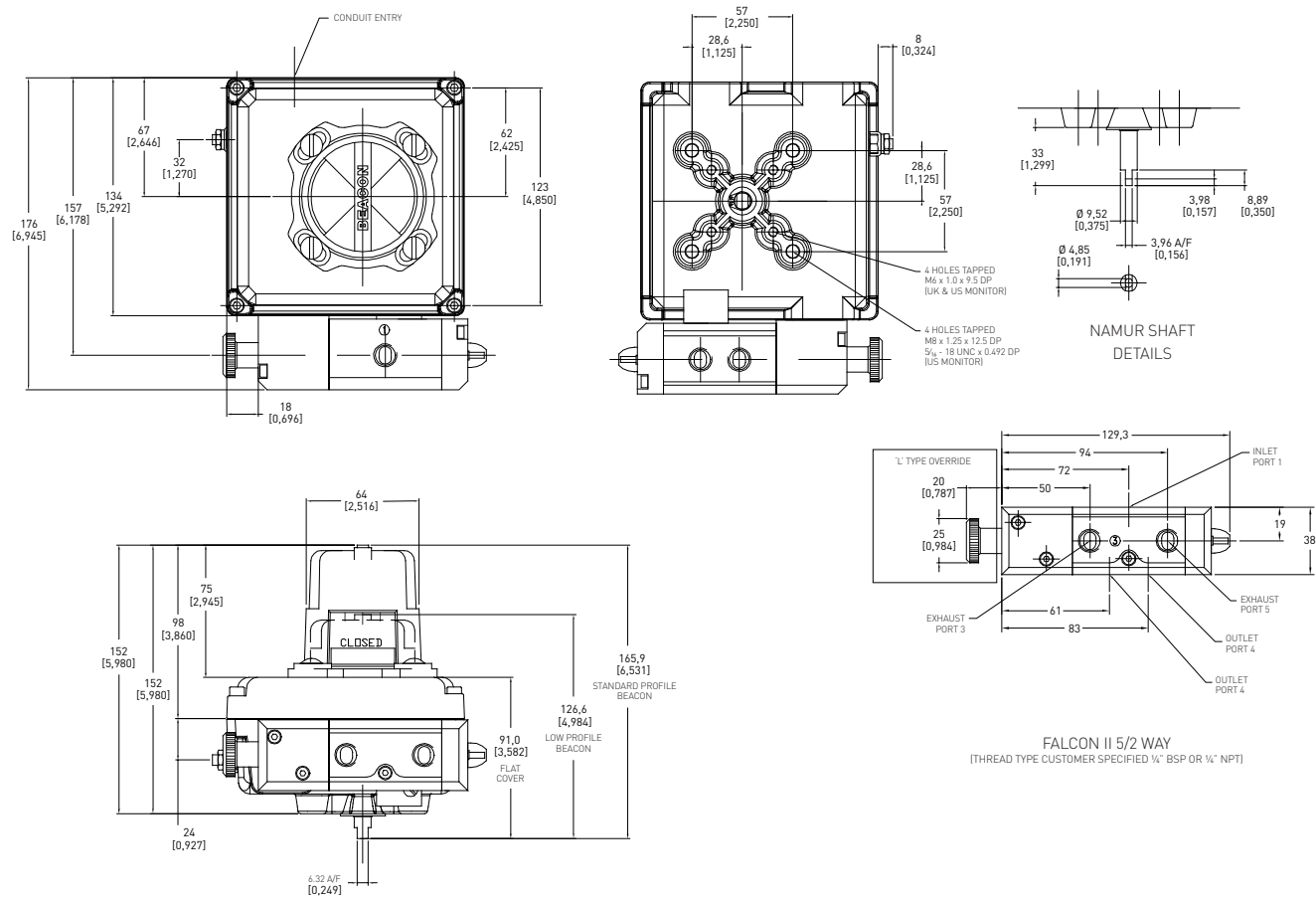
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and  $C_v$  to best suit your application. See the Falcon II data sheet for more information.



# Quantum™ Rotary Control Monitors

Intrinsically Safe – ATEX/IEC

## 3600 Series aluminum and stainless steel enclosure dimensions



Dimensions in mm, where available imperial dimension (inches) in parentheses

### 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	
Standard	Double-D with 1/4" A/F
Option	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

Please consult your sales office for any other requirements

### Notes

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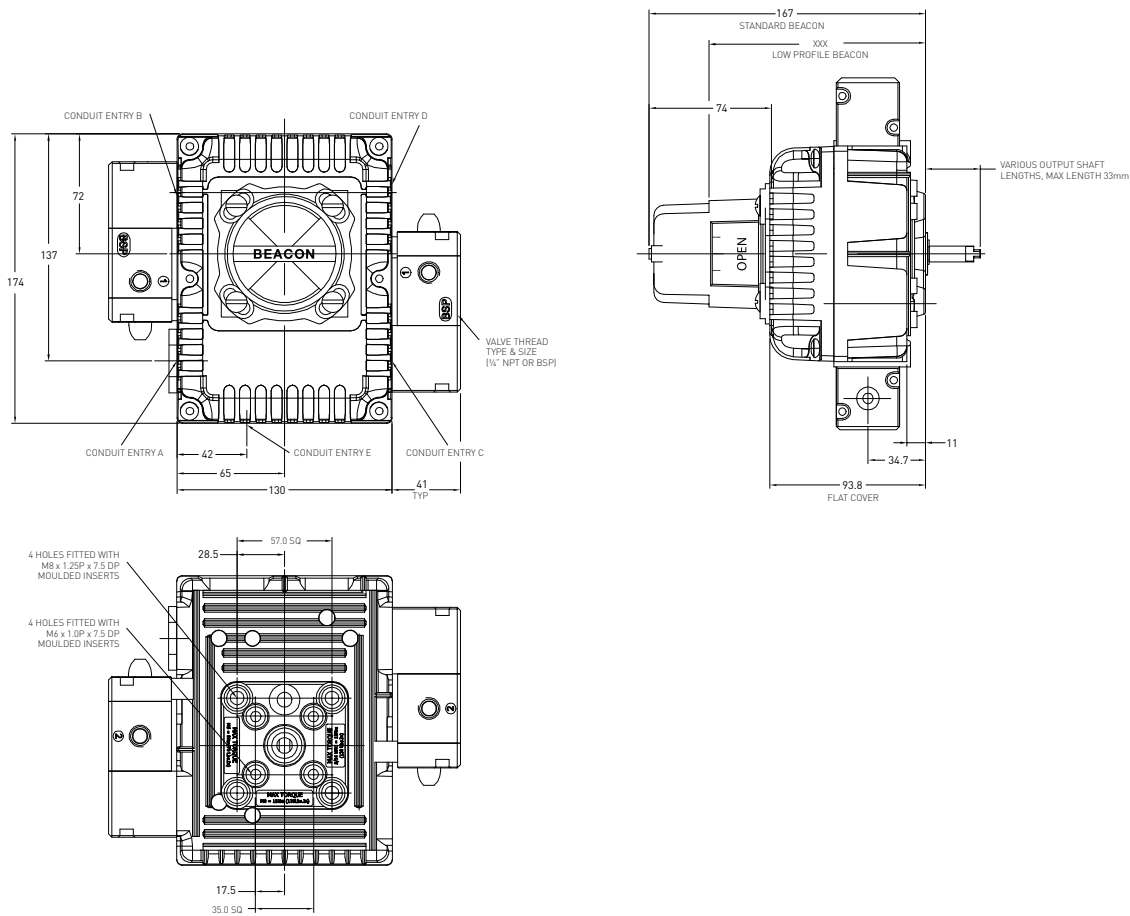
**Solenoid valves**  
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C<sub>v</sub> to best suit your application. See the Falcon II data sheet for more information.



# Quantum™ Rotary Control Monitors

Intrinsically Safe – ATEX/IEC

## 8600 Series resin enclosure dimensions



Dimensions in mm, where available imperial dimension (inches) in parentheses

### Technical specifications

#### Materials of construction

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

#### Drive shaft

Standard	Double-D with 1/4" A/F
Option	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

Please consult your sales office for any other requirements

### Notes

#### Conduit entries

Quantum control monitors are available with a choice of conduit entries. Please see the selection guide for standard entries.

#### Switches and sensors

For further information see our switches and sensors data sheet.

#### Solenoid valves

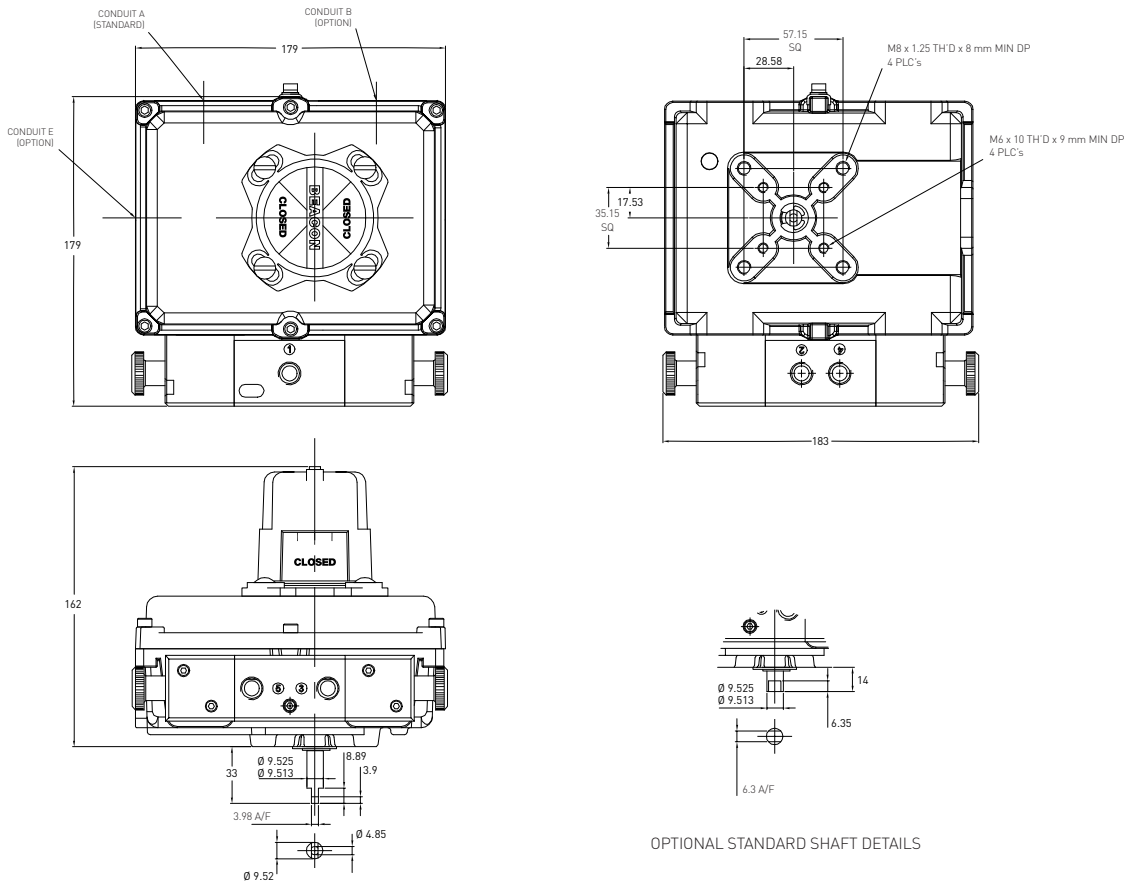
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C<sub>v</sub> to best suit your application. See the Falcon II data sheet for more information.



# Quantum™ Rotary Control Monitors

Intrinsically Safe – ATEX/IEC

## 8600 Series Aluminum and stainless steel enclosure dimensions



Dimensions in mm, where available imperial dimension (inches) in parentheses

Technical specifications	
<b>Materials of construction</b>	
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
<b>Drive shaft</b>	
Standard	Double-D with 1/4" A/F
Option	NAMUR standard VDI/VDE 3845
<b>Available switches</b>	
	Pepperl + Fuchs model NJ2-V3-N V3 SPDT mechanical switches, with gold-plated contacts Magnum, SPDT (hermetically sealed proximity type) switches with rhodium contacts

Please consult your sales office for any other requirements

## Notes

### Conduit entries

Quantum control monitors are available with a choice of conduit entries. Please see the selection guide for standard entries.

### Switches and sensors

For further information see our switches and sensors data sheet.

### 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™ Intrinsically Safe Rotary Control Monitors

## 3600/8600 Series Selection Guide

<b>Housing</b>														
36	3600 with flanged lid (single coil)													
86	8600 with flanged lid (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	Pepperl & Fuchs inductive NAMUR sensor						0	No switches fitted						
8	Other inductive NAMUR sensor													
<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 – ¼" A/F (6.32 mm)													
N	NAMUR standard shaft – VDI/VDE 3845													
*	Non-standard material and build (consult sales office)													
<b>Solenoid body material</b>														
A	Anodised aluminum													
E	Stainless steel													
<b>Solenoid coil voltage</b>														
C	24 V DC													
<b>Solenoid valve specification</b>														
<b>(½" BSP entry; 1.1 Cv)</b>						<b>(¾" 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													
1	One switch/sensor													
2	Two switches/sensors													
3	Three switches/sensors (consult sales office)													
4	Four switches/sensors (consult sales office)													
<b>Conduit entries supplied</b>														
1	One entry (consult sales office)													
2	Two entries (consult sales office)													
3	Three entries (consult sales office)													
4	Four entries (consult sales office)													
<b>Unit specification</b>														
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)													
<b>Certification</b>														
A	ATEX													
I	IECEX													
*	Other options (consult sales office)													
<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

**Specifying your control monitor**  
 Specifying a control monitor is a complex process as there are many variables that affect each individual application. To ensure that you receive the best possible combination for your control and monitoring requirement, please contact your local sales office for advice and guidance from one of our experts.

**Hazardous area classification**  
 Please see our data sheet for further information on the global standards affecting the specification and installation of equipment in hazardous areas..

# Quantum™ Rotary Control Monitors

Intrinsically Safe – ATEX/IEC

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