

## QUANTUM™ ROTARY CONTROL MONITORS

NON-INCENDIVE – NEC

Low power single or dual-coil rotary position control monitors certified for use in Division 2, non-incendive hazardous areas.



### FEATURES

- 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 4 way Falcon solenoid valves.
- Solenoid valves with a choice of  $C_v$  ratings and coil voltage.
- 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.
- Standardized mounting pattern for easy adaptation to common bracketry.
- Robust stainless steel conduit entry inserts provide protection from excessive torque and reliable grounding.
- NAMUR shaft output compliant to VDI/VDE 3845 available.
- 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 enclosure.

### TECHNICAL DATA

#### Agency approvals

Area classification (NEC 500)  
Models 765/789/865

Non-incendive Class I, Division 2, Groups A, B, C, D  
Class II and III Division 2 Groups E, F, G, T6, Ta = 40°C

Enclosure standards (ANSI/NEMA 250)  
All enclosures

Type 4, 4X

#### Switches

Models 765/789/865

Magnum SPDT (hermetically sealed proximity type) switches  
MagPAC bifurcated switch pack

#### Enclosures

Models 765/865  
Model 789  
Models 789/865

Engineered resin  
Aluminum  
Stainless steel

#### Falcon solenoid valves

$C_v$   
Materials

Choice of 1.4 and 4.3  
Brass, aluminum and stainless steel

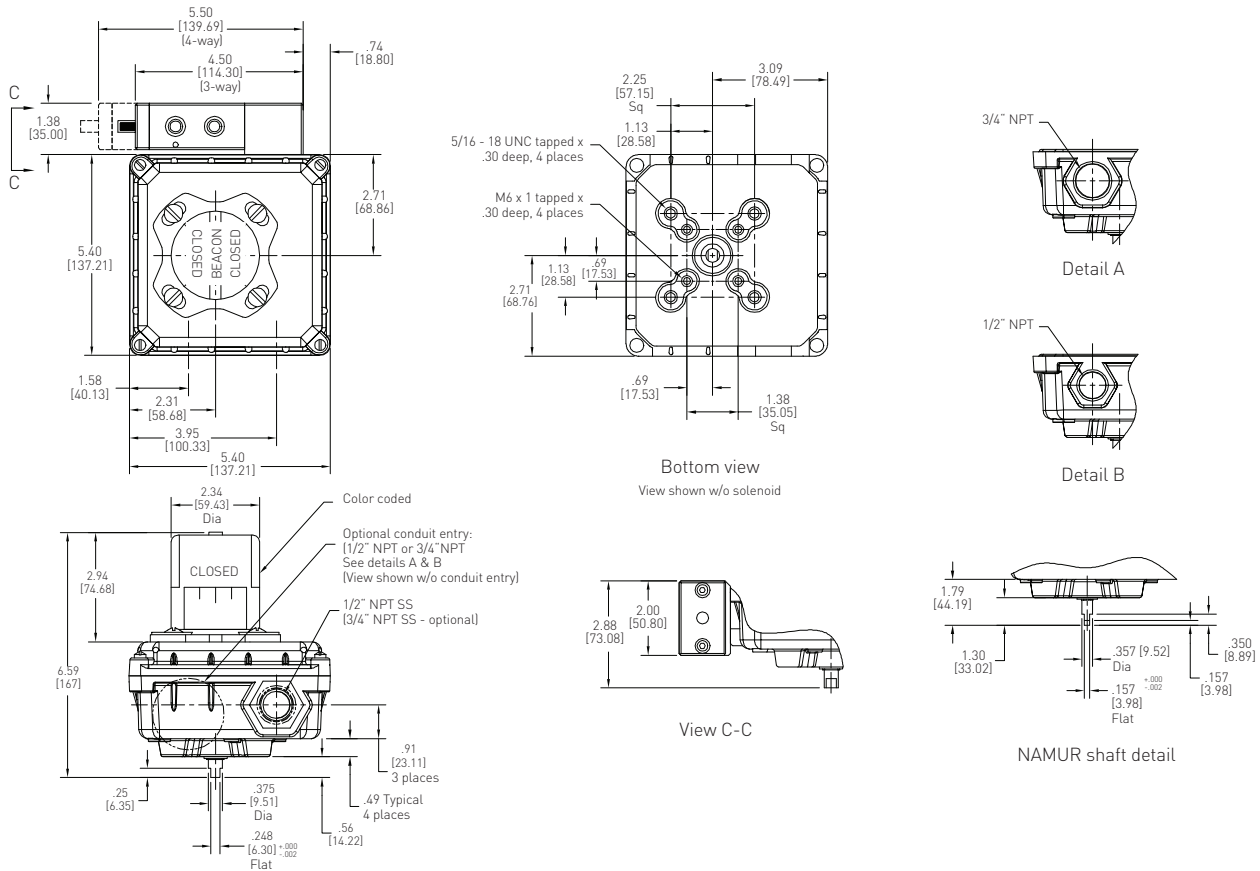
### GENERAL APPLICATION

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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## MODEL 765 DIMENSIONS



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

## TECHNICAL SPECIFICATIONS

### Materials of construction

Enclosure	Engineered polyamide 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
Magnum, SPDT hermetically sealed magnetic proximity switches, with rhodium contacts
MagPAC Switch pack, SPST normally open bifurcated switches with LED indication

## 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

## SOLENOID VALVES

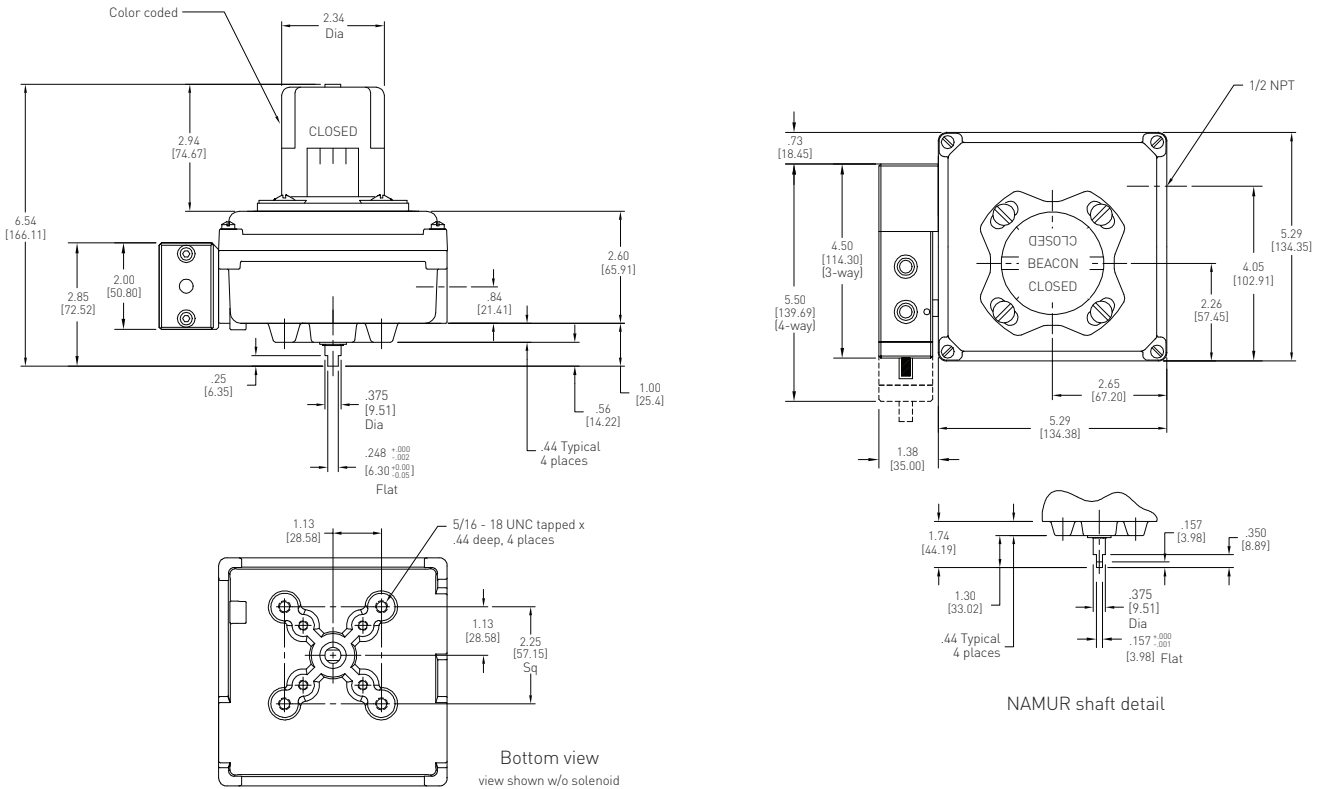
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C<sub>v</sub> to best suit your application. See the Falcon data sheet for more information.



# QUANTUM™ ROTARY CONTROL MONITORS

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## MODEL 789 DIMENSIONS



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

## TECHNICAL SPECIFICATIONS

### Materials of construction

Enclosure	Aluminum with powder coat finish
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze
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
Magnum, SPDT hermetically sealed magnetic proximity switches with rhodium contacts
MagPAC Switch pack, SPST normally open bifurcated switches with LED indication

### Options

Stainless steel enclosure
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## 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

## SOLENOID VALVES

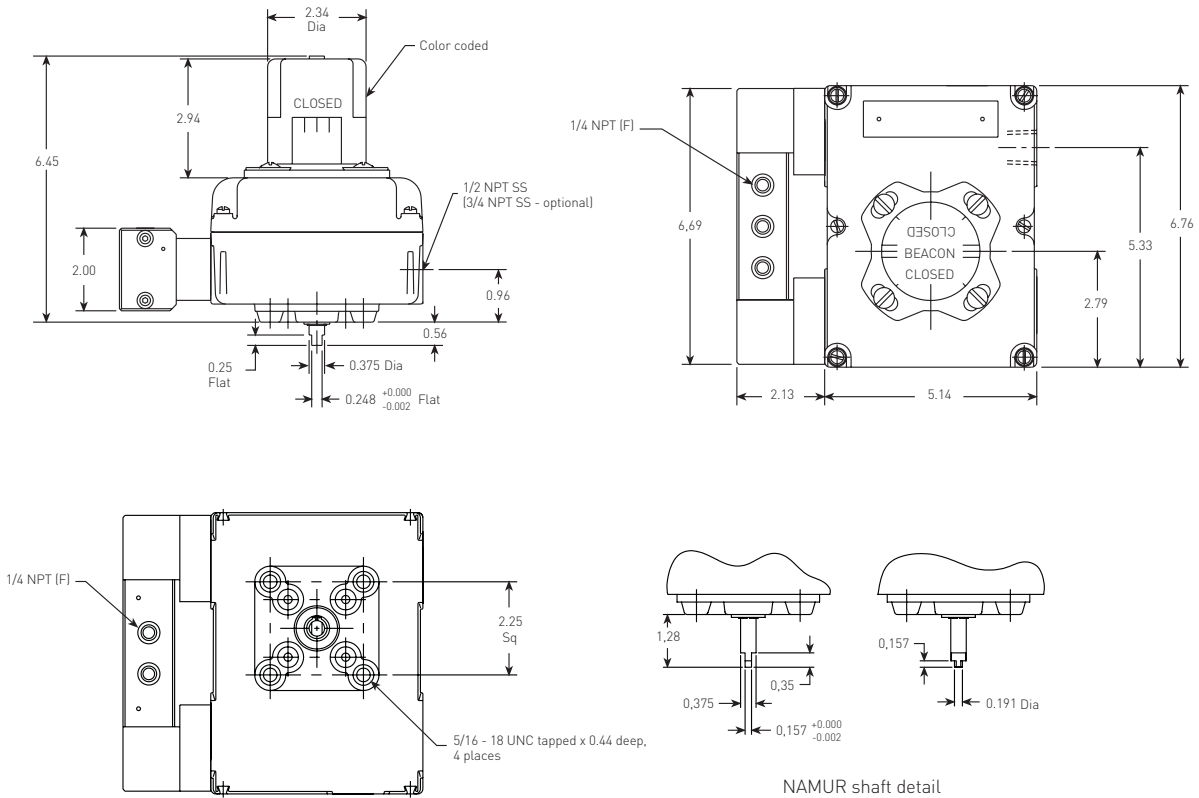
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C<sub>v</sub> to best suit your application. See the Falcon data sheet for more information.



# QUANTUM™ ROTARY CONTROL MONITORS

NON-INCENDIVE – NEC

## MODEL 865 DIMENSIONS



Dimensions in inches

### TECHNICAL SPECIFICATIONS

#### Materials of construction

Enclosure	Engineered polyamide 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
Magnum, SPDT hermetically sealed magnetic proximity switches with rhodium contacts
MagPAC Switch pack, SPST normally open bifurcated switches with LED indication

#### Options

Stainless steel enclosure
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### 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

### 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 data sheet for more information.



# QUANTUM™ NON-INCENDIVE ROTARY CONTROL MONITORS

## MODELS 765/789/865 SELECTION GUIDE

### Base model

765-	Engineered resin enclosure
789-	Aluminum enclosure <sup>[3]</sup>
865-	Engineered resin enclosure for dual coil <sup>[3]</sup>

### Shaft output

S	Standard (double-D with ¼" flats)
N	NAMUR

### Beacon

BY	BM2-Y (standard)	B1	BM3-1
RG	BM2-RG	B3	BM3-3
FE	BM2-Y-FE (French/English)	B5	BM3-5
AB	BM2-B	B7	BM3-7
AR	BM2-R	B9	BM3-9
FC	Flat cover		

### Conduit

1A	One ½" NPT (F)
1B	One ¾" NPT (F)
2A	Two ½" NPT (F)
2B	Two ¾" NPT (F)

### Position switches

2M06	Two SPDT Magnum switches - 8 pt. terminal strip
2M12	Two SPDT Magnum switches with rhodium contacts - 8 pt. terminal strip
2M13	Two SPST MagPAC module - Two SPST bifurcated switches with LEDs (clear cover std. in models 765 and 865)
4M06	Four SPDT Magnum switches (only in model 865 w/single coil valves) - 16 pt. terminal strip
4M12	Four SPDT Magnum switches w/rhodium contacts (only in Model 865 w/single coil valves) - 16 pt. terminal strip

### Analog position transmitter

00	Not available
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### Coil voltage

D	24 V DC
A	120 V AC

### Falcon valve body

2V3	1.4 C <sub>v</sub> , 3-way, brass	2V7	1.4 C <sub>v</sub> , 4-way, brass
3V3	1.4 C <sub>v</sub> , 3-way, aluminum	3V7	1.4 C <sub>v</sub> , 4-way, aluminum
5V3	1.4 C <sub>v</sub> , 3-way, 316 SS	5V7	1.4 C <sub>v</sub> , 4-way, 316 SS
3V4	4.3 C <sub>v</sub> , 3-way, aluminum**	3V8	4.3 C <sub>v</sub> , 4-way, aluminum
2VY	1.4 C <sub>v</sub> , dual coil, brass*	3VY	1.4 C <sub>v</sub> , dual coil, aluminum*
5VY	1.4 C <sub>v</sub> , dual coil, 316 SS*	3VZ	4.3 C <sub>v</sub> , dual coil, aluminum*

### Valve options

0	None
M	Momentary over-ride
L	Locking over-ride
R	Manual reset
N	Manual reset with latch
E	External pilot

765- N BY 1A 2M06 00 D 3V3 0 = Model number **765-NBY1A2M0600D3V30**

### NOTES

- \* Dual coil valve body options only available with base model 865
- \*\* 3V4 valves are 3V8 valves with ports 2 & 3 plugged at factory for 3-way functionality

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.
3. For stainless steel enclosure, please add '00124' to the end of your part number built with the above selection guide.

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