

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

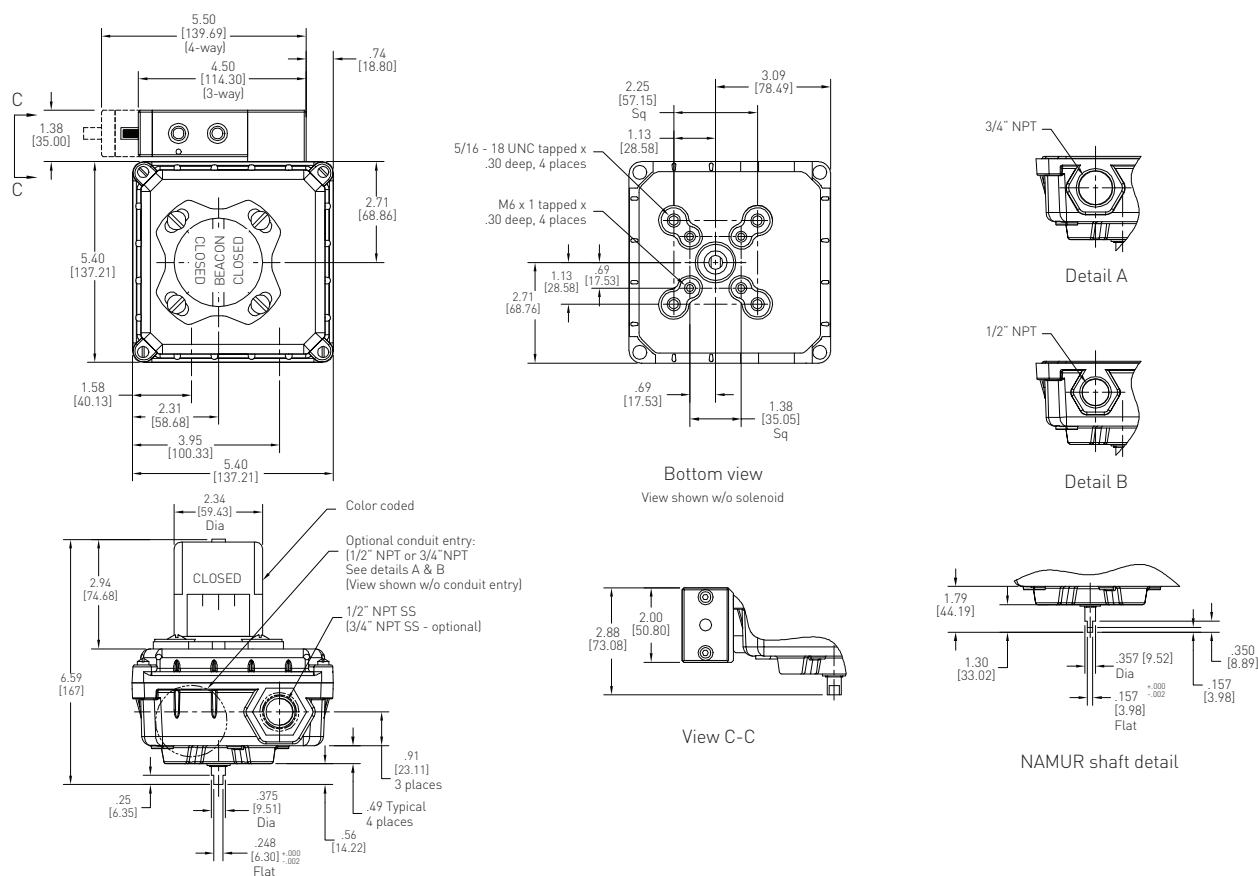
Choice of 1.4 and 4.3
Brass, aluminum and stainless steel

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

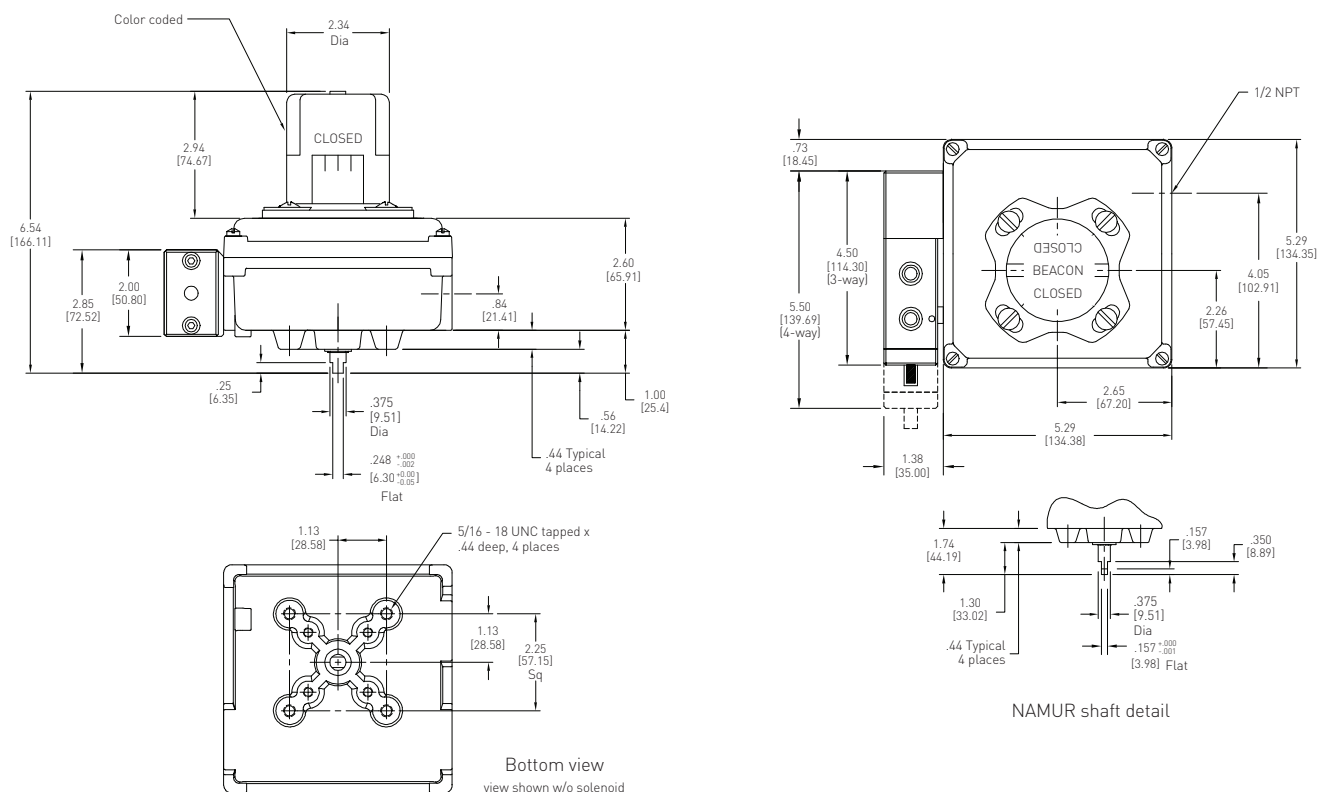
SOLENOID VALVES

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



NON-INCENDIVE - NEC

MODEL 789 DIMENSIONS



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

TECHNICAL SPECIFICATIONS

Materials of construction

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

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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SOLENOID VALVES

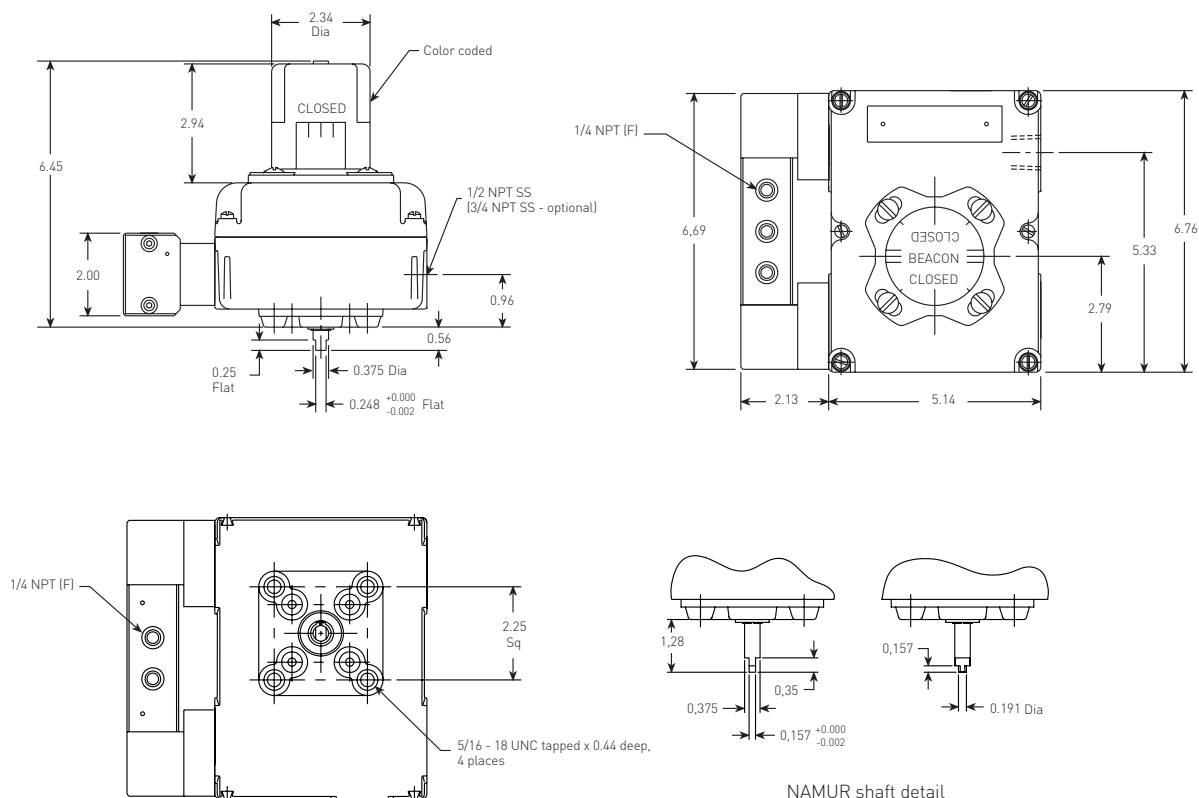
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MODEL 865 DIMENSIONS



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

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SOLENOID VALVES

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MODELS 765/789/865 SELECTION GUIDE

Base model									
765-	Engineered resin enclosure								
789-	Aluminum enclosure ^[3]								
865-	Engineered resin enclosure for dual coil ^[3]								
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								
Coil voltage									
D	24 V DC								
A	120 V AC								
Falcon valve body									
2V3	1.4 C _v , 3-way, brass				2V7	1.4 C _v , 4-way, brass			
3V3	1.4 C _v , 3-way, aluminum				3V7	1.4 C _v , 4-way, aluminum			
5V3	1.4 C _v , 3-way, 316 SS				5V7	1.4 C _v , 4-way, 316 SS			
3V4	4.3 C _v , 3-way, aluminum**				3V8	4.3 C _v , 4-way, aluminum			
2VY	1.4 C _v , dual coil, brass*				3VY	1.4 C _v , dual coil, aluminum*			
5VY	1.4 C _v , dual coil, 316 SS*				3VZ	4.3 C _v , 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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Westlock. We reserve the right to change designs and specifications without notice.