

## QUANTUM™ ROTARY CONTROL MONITORS

EXPLOSIONPROOF – NEC

Low power single or dual-coil rotary control monitors certified Explosionproof for use in hazardous areas. They are available with a broad range of integrated switching and Falcon solenoid valve options



### 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 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.
- Standardized mounting pattern for easy adaptation to common bracketry.
- NAMUR shaft output compliant to VDI/VDE 3845 available.
- Aluminum enclosures with ultra-low copper content (0.2% maximum) ensure robust performance in corrosive environments.
- Rugged stainless steel enclosure.

### TECHNICAL DATA

#### Agency approvals

Area classification (NEC 500)  
Models 777/877

Class I, Div 1, Groups C, D, T6, Ta = 60°C  
Non-incendive Class I, Div 2, Groups A, B, C, D, T6, Ta = 60°C

Models 360/366

Class II & III, Div 1, Groups E, F & G  
Class I, Div 1, Groups \*A, \*B, C, D, T5, Ta = -50°C to 60°C  
Class II & III Div 1 Groups E, F, G, T5, Ta = -50°C to 60°C  
Non-incendive Class I, Div 2, Groups A, B, C, D, T5, Ta = -50°C to 60°C

Enclosure standards (ANSI/NEMA 250)

All enclosures

Type 4, 4X, 6P

#### Switches

Mechanical switches, SPDT and DPDT  
Magnum SPDT (hermetically sealed proximity type) switches  
MagPAC bifurcated Switch pack

#### Enclosures

Models 777/877/360

Model 366

Aluminum  
Stainless steel

#### Falcon solenoid valves

$C_v$

Materials

Choice of 1.4 and 4.3  
Brass, aluminum and stainless steel

### GENERAL APPLICATION

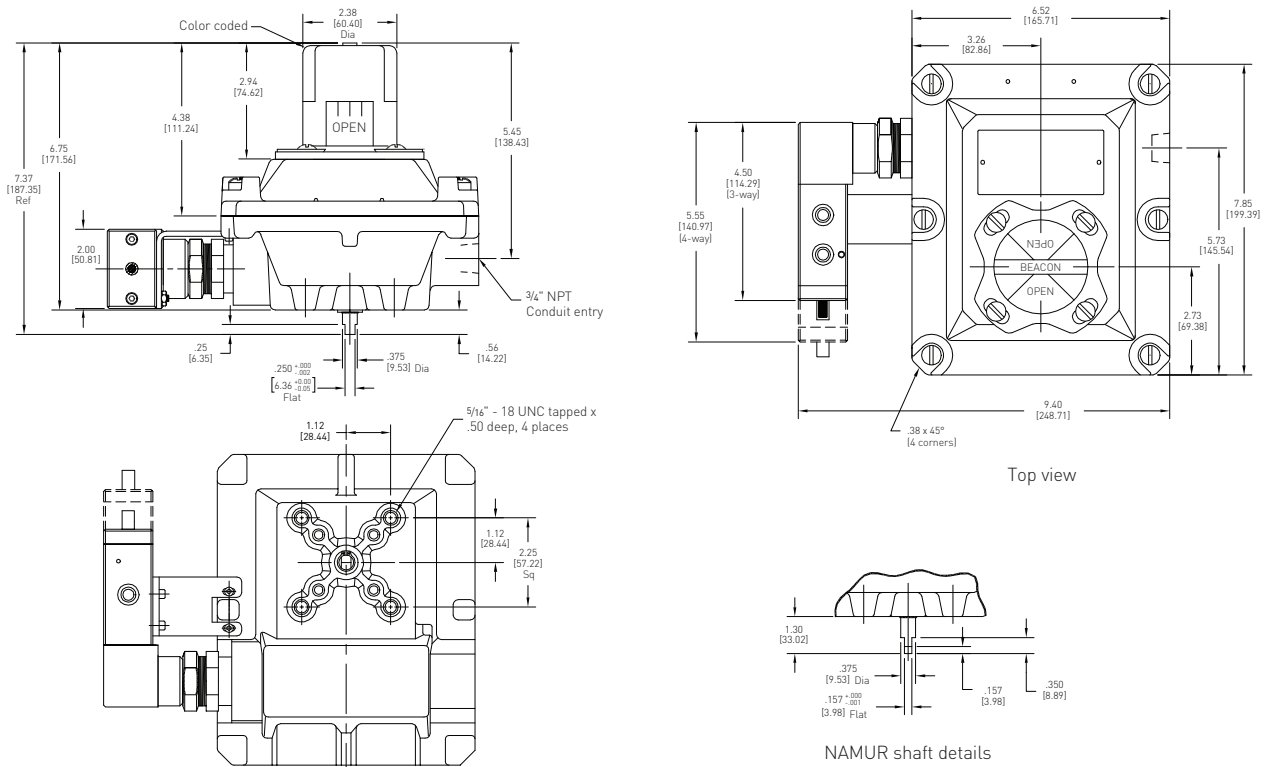
Quantum control monitors combine consistent and accurate valve monitoring with the control of automation process valves using integrated position sensors and low power solenoid valves in a single compact unit.

\* De-rated to Group C and D when used with a solenoid valve

# QUANTUM™ ROTARY CONTROL MONITORS

## EXPLOSIONPROOF – NEC

### MODEL 777 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

V3 mechanical switches, SPDT
DPDT mechanical 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

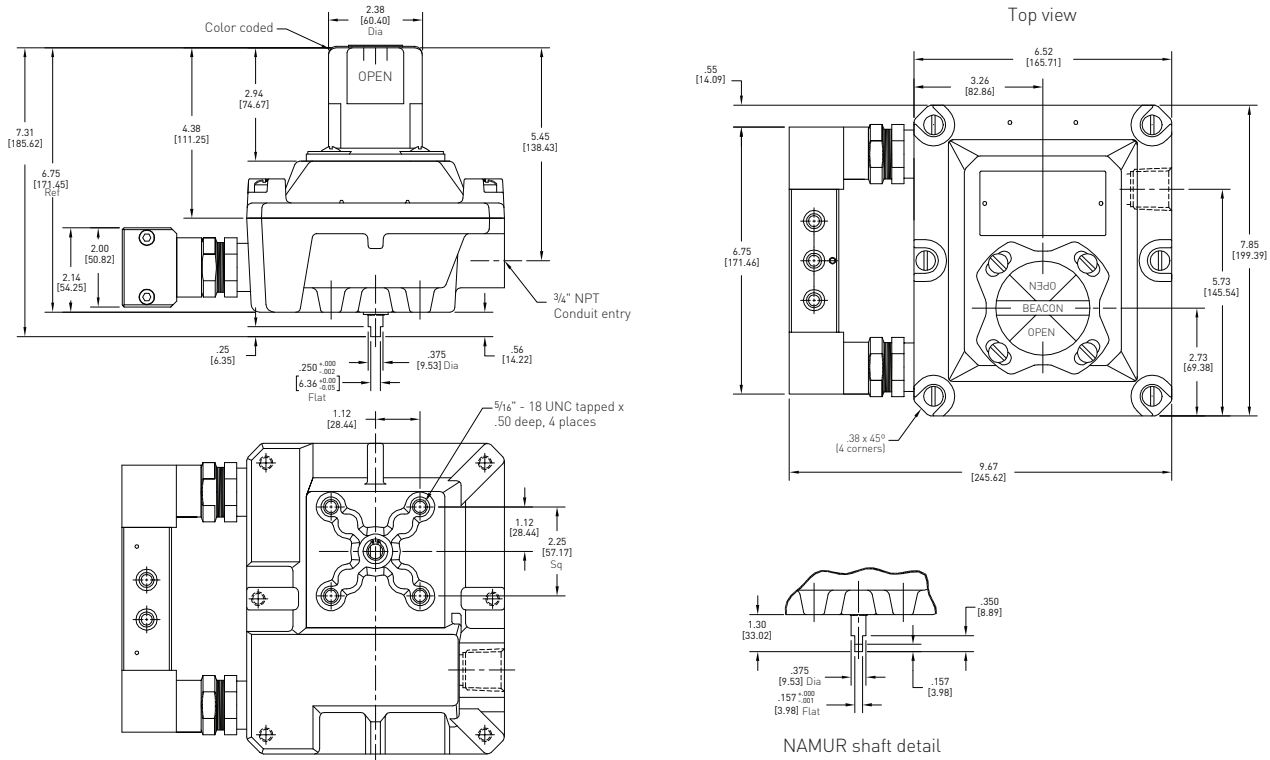
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and Cv to best suit your application. See the Falcon data sheet for more information.



# QUANTUM™ ROTARY CONTROL MONITORS

## EXPLOSIONPROOF – NEC

### MODEL 877 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

V3 mechanical switches, SPDT
DPDT mechanical 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

### 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.

### NOTES

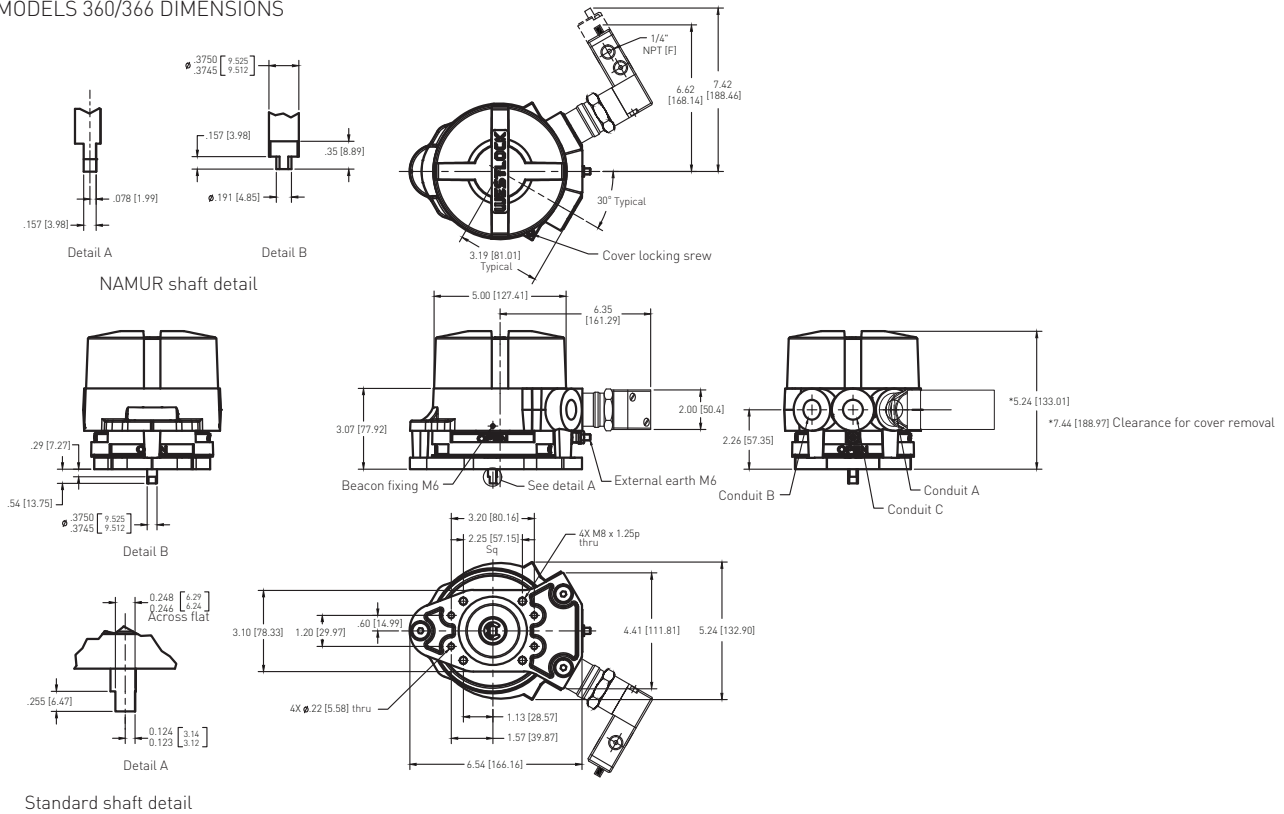
1. See selection guide for standard conduit entries
2. See switches & sensors data sheet for further information
3. Please consult your sales office for any other requirements



# QUANTUM™ ROTARY CONTROL MONITORS

## EXPLOSIONPROOF – NEC

### MODELS 360/366 DIMENSIONS



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

### TECHNICAL SPECIFICATIONS

#### Materials of construction

Enclosure	
Model 360	Aluminum with powder coat finish
Model 366	Stainless steel with electropolished 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

	V3 mechanical switches, SPDT
	DPDT mechanical switches
	Magnum, SPDT hermetically sealed magnetic proximity switches, with tungsten contacts
	Magnum, SPDT hermetically sealed magnetic proximity switches, with rhodium contacts

### 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.



# QUANTUM™ EXPLOSIONPROOF ROTARY CONTROL MONITORS

## MODELS 777/877 SELECTION GUIDE

### Base model

777- Aluminum enclosure  
877- Aluminum enclosure for dual coil

#### Shaft output

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

#### Beacon

BY	BM2-Y (standard)	B1	BM3-1
RG	BM2-RG (Red Closed/Green Open)	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

1B One ¼" NPT (F)  
2B Two ¼" NPT (F)

#### Position switches

2M02 Two SPDT mechanical switches - 8 pt. TS  
2M04 Two DPDT mechanical switches - 16 pt. TS  
2M06 Two SPDT Magnum switches - 8 pt. TS  
2M12 Two SPDT Magnum switches with rhodium contacts - 8 pt. TS  
2M13 Two SPST MagPAC module - Two SPST bifurcated switches with LEDs

#### Analog position transmitter

00 Not available

#### Coil voltage

X 24 V DC (XP coil)  
Y 120 V AC (XP coil)

#### Falcon V valve body

2V3	1.4 Cv, 3-way, brass	2V7	1.4 Cv, 4-way, brass
3V3	1.4 Cv, 3-way, aluminum	3V7	1.4 Cv, 4-way, aluminum
5V3	1.4 Cv, 3-way, 316 SS	5V7	1.4 Cv, 4-way, 316 SS
3V4	4.3 Cv, 3-way, aluminum**	3V8	4.3 Cv, 4-way, aluminum
2VY	1.4 Cv, dual coil, brass*	3VY	1.4 Cv, dual coil, aluminum*
5VY	1.4 Cv, dual coil, 316 SS*	3VZ	4.3 Cv, 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

777- N BY 1B 2M13 00 X 5V3 0 = Model number **777-NBY1B2M1300X5V30**

### NOTES

- \* Dual coil valve body options only available with base model 877.
- \*\* 3V4 valves are 3V8 valves with ports 2 & 3 plugged at the 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.

# QUANTUM™ EXPLOSIONPROOF ROTARY CONTROL MONITORS

## MODELS 360/366 SELECTION GUIDE

<b>Base model</b>									
360-	Aluminum enclosure								
366-	Stainless steel enclosure								
<b>Shaft output</b>									
S	Standard (double-D with ¼" flats)								
N	NAMUR								
<b>Beacon</b>									
BY	BM2-Y (standard)								
RG	BM2-RG (Red Closed/Green Open)								
<b>Conduit</b>									
1B	One ¾" NPT (F)								
2B	Two ¾" NPT (F)								
<b>Position switches</b>									
2M02	Two SPDT mechanical switches - 8 pt. TS								
2M04	Two DPDT mechanical switches - 16 pt. TS								
2M06	Two SPDT Magnum switches - 8 pt. TS								
2M12	Two SPDT Magnum switches with rhodium contacts - 8 pt. TS								
<b>Analog position transmitter</b>									
00	Not available								
<b>Coil voltage</b>									
X	24 V DC (XP coil)								
Y	120 V AC (XP coil)								
<b>Falcon V valve body</b>									
2V3	1.4 Cv, 3-way, brass	2V7	1.4 Cv, 4-way, brass						
3V3	1.4 Cv, 3-way, aluminum	3V7	1.4 Cv, 4-way, aluminum						
5V3	1.4 Cv, 3-way, 316 SS	5V7	1.4 Cv, 4-way, 316 SS						
3V4	4.3 Cv, 3-way, aluminum*	3V8	4.3 Cv, 4-way, aluminum						
<b>Valve options</b>									
0	None								
M	Momentary over-ride								
L	Locking over-ride								
R	Manual reset								
N	Manual reset with latch								
E	External pilot								
360-	N	BY	1B	2M06	00	X	5V3	0	= Model number <b>360-NBY1B2M0600X5V30</b>

### NOTES

\* 3V4 valves are 3V8 valves with ports 2 & 3 plugged at the 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.





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