

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

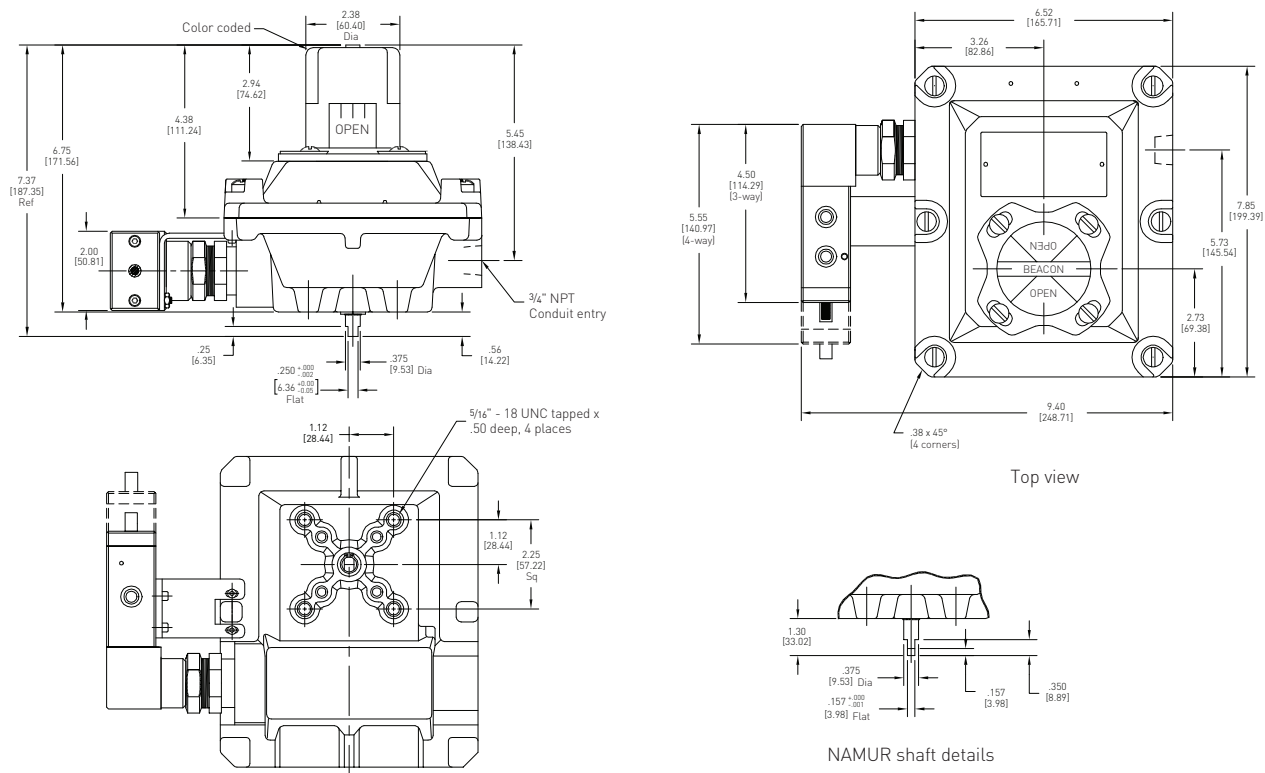
GENERAL APPLICATION

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

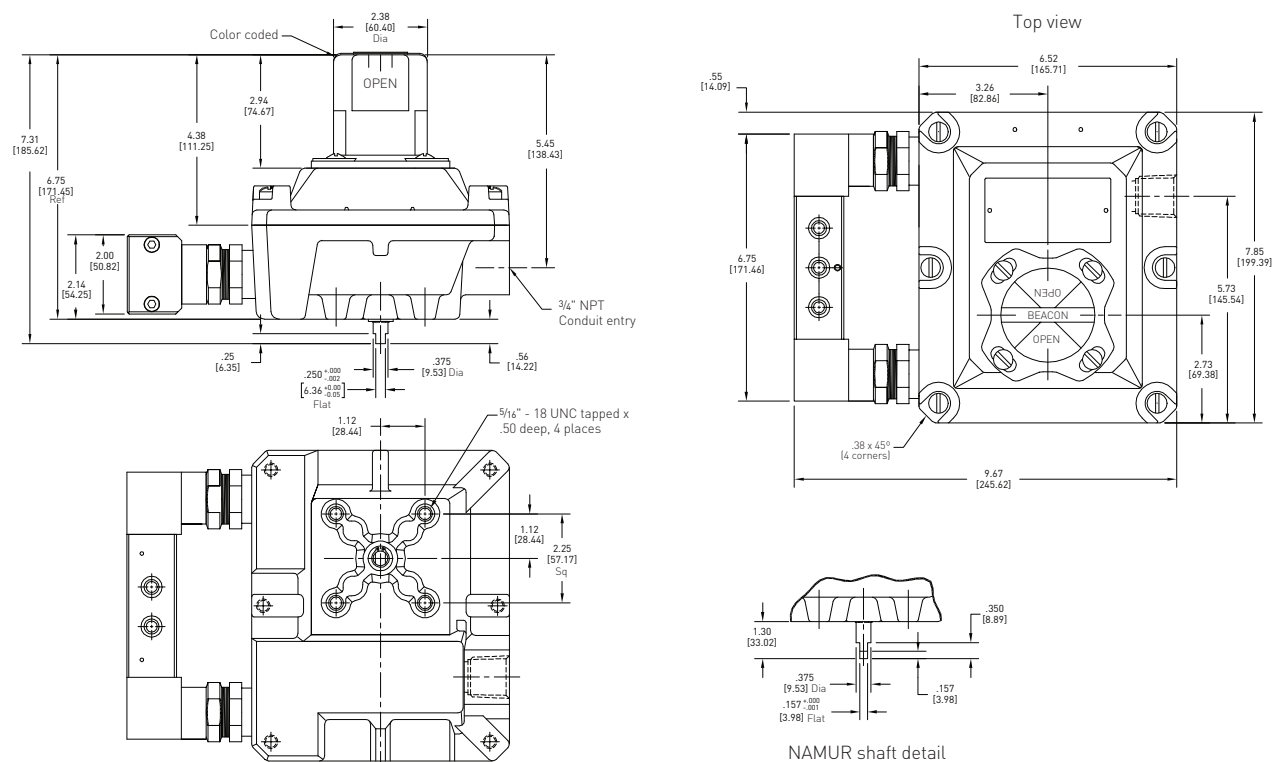
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and Cv to best suit your application. See the Falcon data sheet for more information.



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_v to best suit your application. See the Falcon data sheet for more information.

NOTES

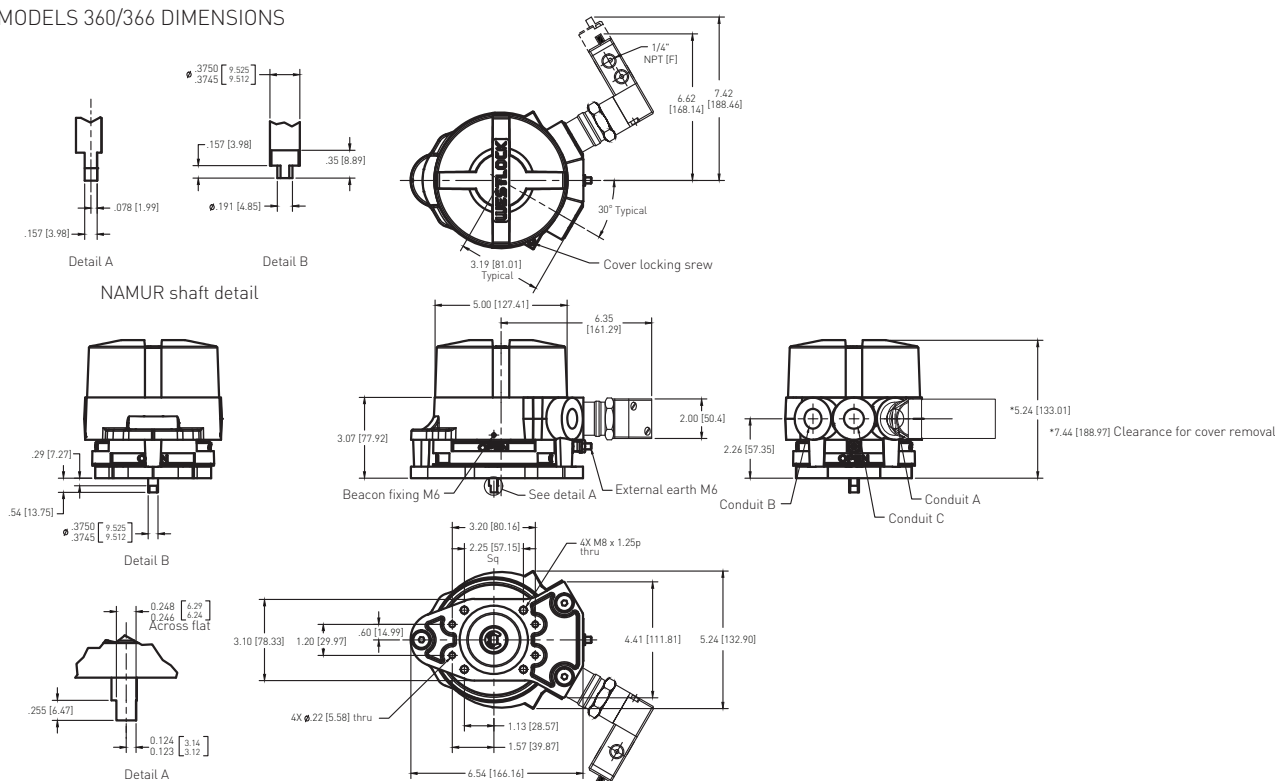
1. See selection guide for standard conduit entries
2. See switches & sensors data sheet for further information
3. Please consult your sales office for any other requirements



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 ¾" NPT (F)								
2B	Two ¾" 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 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								
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

Base model									
360-	Aluminum enclosure								
366-	Stainless steel enclosure								
	Shaft output								
	S	Standard (double-D with ¼" flats)							
	N	NAMUR							
		Beacon							
	BY	BM2-Y (standard)							
	RG	BM2-RG (Red Closed/Green Open)							
		Conduit							
		1B	One ¾" NPT (F)						
		2B	Two ¾" 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					
				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
							Valve options		
							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 360-NBY1B2M0600X5V30

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.



www.westlockcontrols.com

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