

QUANTUM™ 764/784/864 ROTARY CONTROL MONITORS

WEATHERPROOF - NEMA

Rotary position control monitors for quarter-turn valve applications that are designed specifically for general purpose applications in non-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

Enclosure standards (ANSI/NEMA 250)

All enclosures

Type 4, 4X

Switches

Models 764/784/864

V3 SPDT mechanical switches
DPDT mechanical switches

Enclosures

Models 764/864

Model 784

Model 784

Engineered resin

Aluminum

Stainless steel**

Falcon solenoid valves

C_v

Materials

Choice of 1.4 and 4.3**

Brass, aluminum and stainless steel

NOTES

*4.3 C_v is available in Aluminum only

**Stainless Steel enclosure option using part number "00124" in ordering guide

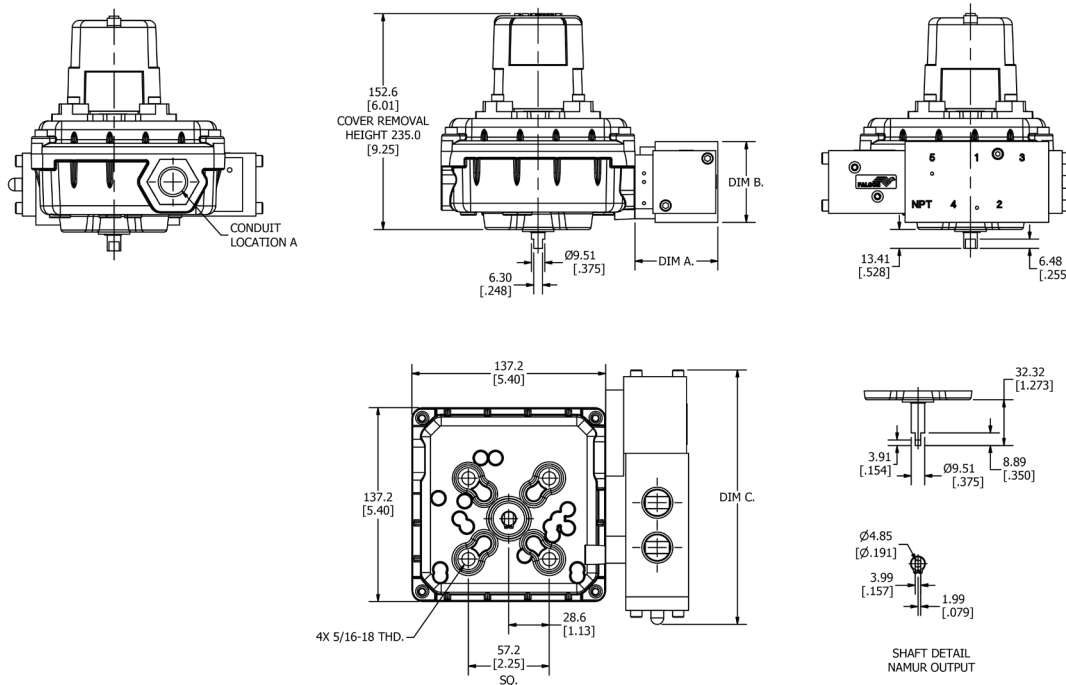
GENERAL APPLICATION

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 764 DIMENSIONS



VALVE TYPE	DIM. A.	DIM. B.	DIM. C.
1.4 Cv, 3-WAY, BRASS, AL, 316 SS	38.1 [1.50]	50.8 [2.00]	103.8 [4.09]
4.3 Cv, 3-WAY, AL	44.5 [1.75]	57.2 [2.25]	179.2 [7.08]
3.5 Cv, 3-WAY, 316 SS	47.5 [1.87]	70.0 [2.76]	167.0 [6.57]
1.4 Cv, 4-WAY, BRASS, AL, 316 SS	41.4 [1.63]	50.8 [2.00]	124.5 [4.90]
4.3 Cv, 4-WAY, AL	58.7 [2.31]	57.2 [2.25]	179.9 [7.08]
3.5 Cv, 4-WAY, 316 SS	47.0 [1.85]	70.0 [2.76]	167.0 [6.57]

Dimensions in millimeters, where available imperial dimension (in) 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 ¼" A/F
NAMUR standard	NAMUR standard VDI/VDE 3845

Available switches

	V3 mechanical switches, SPDT
	DPDT mechanical switches

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

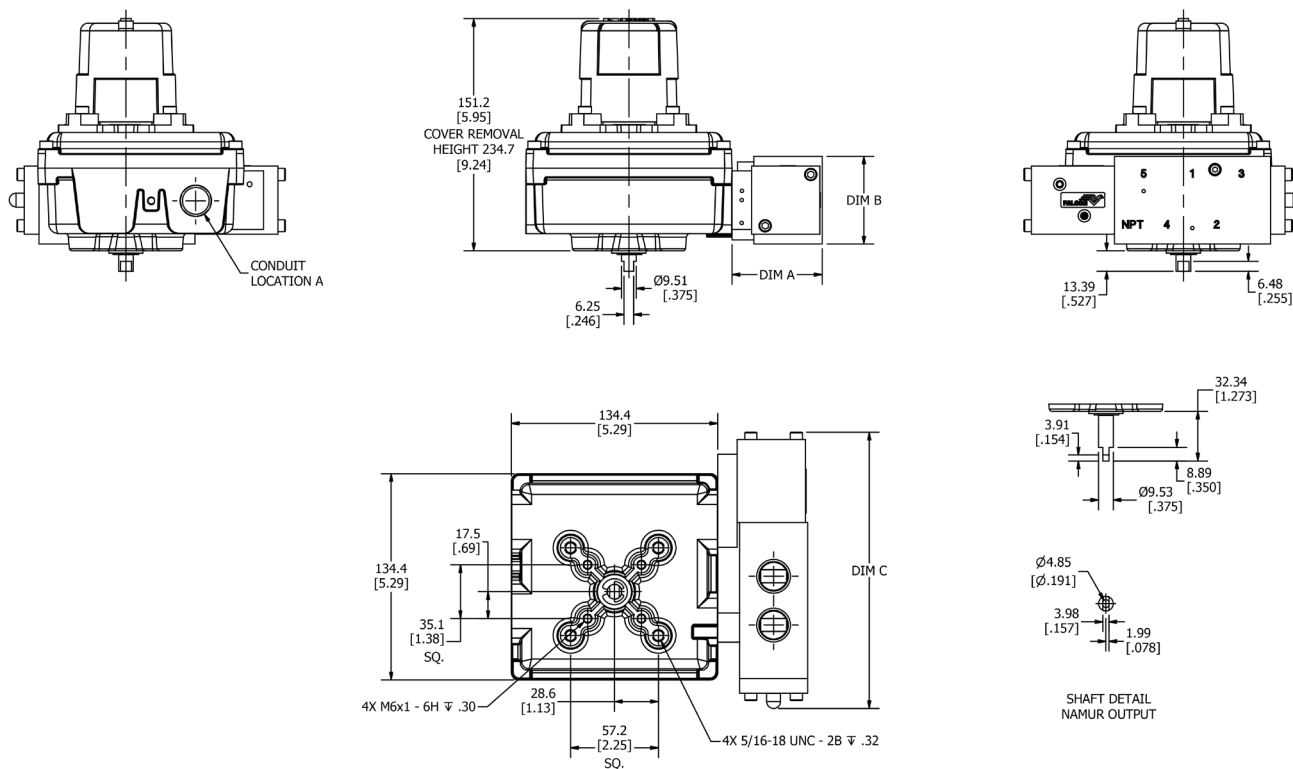
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and Cv to best suit your application. See the Falcon data sheet for more information.



QUANTUM™ 764/784/864 ROTARY CONTROL MONITORS

WEATHERPROOF - NEMA

MODEL 784 DIMENSIONS



VALVE TYPE	DIM. A.	DIM. B	DIM. C
1.4 Cv, 3-WAY, BRASS, AL, 316 SS	38.1 [1.50]	50.8 [2.00]	103.8 [4.09]
4.3 Cv, 3-WAY, AL	44.5 [1.75]	57.2 [2.25]	179.2 [7.08]
3.5 Cv, 3-WAY, 316 SS	47.0 [1.85]	70.0 [2.76]	167.0 [6.57]
1.4 Cv, 4-WAY, BRASS, AL, 316 SS	41.4 [1.63]	50.8 [2.00]	124.5 [4.90]
4.3 Cv, 4-WAY, AL	58.7 [2.31]	57.2 [2.25]	179.9 [7.08]
3.5 Cv, 4-WAY, 316 SS	47.0 [1.85]	70.0 [2.76]	167.0 [6.57]

Dimensions in millimeters, where available imperial dimension (in) 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

Options

Stainless steel enclosure

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

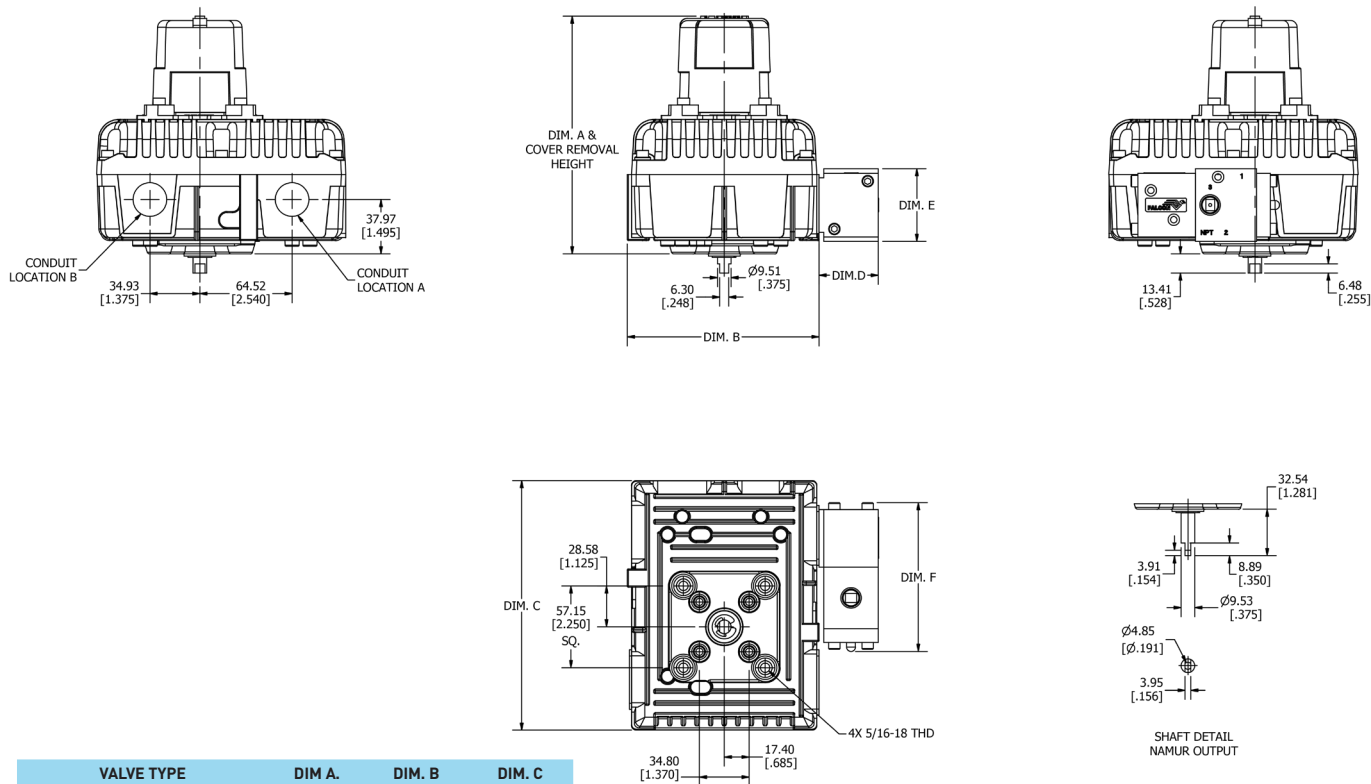
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and Cv to best suit your application. See the Falcon data sheet for more information.



QUANTUM™ 764/784/864 ROTARY CONTROL MONITORS

WEATHERPROOF - NEMA

MODEL 864 DIMENSIONS



Dimensions in millimeters, where available imperial dimension (in) 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

V3 mechanical switches, SPDT
DPDT mechanical switches

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™ WEATHERPROOF ROTARY CONTROL MONITORS

MODELS 764/784/864 SELECTION GUIDE

Base model

- 764- Engineered Resin Enclosure
- 784- Aluminum Enclosure
- 864- Engineered Resin Enclosure for Dual Coil with 12 pt. terminal strip or Single Coil with 4 switch options

Shaft output

- S Standard (Double-D with 1/4" Flats)
- D Direct mount to Keystone F89 actuators
- N NAMUR

Beacon

- | | | | |
|----|---------------------------------|----|---------------------------|
| BY | BM2-Y (Standard) | B1 | BM3-1 (3-way B1 Flowpath) |
| RG | BM2-RG (Red Closed/Green Open) | B3 | BM3-3 (3-way B3 Flowpath) |
| FE | BM2-Y-FE (French/English) | B5 | BM3-5 (3-way B5 Flowpath) |
| LP | BM2-Y-LP (Low Profile Standard) | B7 | BM3-7 (3-way B7 Flowpath) |
| FC | Flat Cover | B9 | BM3-9 (3-way B9 Flowpath) |

Conduit

- 1A One 1/2" NPT (F)
- 1B One 3/4" NPT (F)
- 2A Two 1/2" NPT (F)
- 2B Two 3/4" NPT (F)

Position switches

- 2M02 Two SPDT Mechanical Switches - 8 pt. Terminal Strip
- 2M04 Two DPDT Mechanical Switches - 16 pt. Terminal Strip **(Only available with 864 Model and Single Coil Valve Bodies)**
- 4M02 Four SPDT Mechanical Switches - 16 pt. Terminal Strip **(Only available with 864 Model and Single Coil Valve Bodies)**

Position transmitter

- 00 None

Coil voltage

- D 24 VDC
- A 120 VAC
- C 24 VAC
- V 125 VDC
- H 220 VAC

Falcon V valve body

- 2V3 1.4 C_v, 3-way, Brass
- 3V3 1.4 C_v, 3-way, Aluminum
- 5V3 1.4 C_v, 3-way, 316 SS
- 2V7 1.4 C_v, 4-way, Brass
- 3V7 1.4 C_v, 4-way, Aluminum
- 5V7 1.4 C_v, 4-way, 316 SS
- 2VY 1.4 C_v, Dual Coil, Brass **(Only available with 864 Model)**
- 3VY 1.4 C_v, Dual Coil, Aluminum **(Only available with 864 Model)**
- 5VY 1.4 C_v, Dual Coil, 316 SS **(Only available with 864 Model)**
- 540 3.5 C_v, 3-way, 316 SS* **(Only available with 784 Model)**
- 580 3.5 C_v, 4-way, 316 SS* **(Only available with 784 Model)**
- 3V4 4.3 C_v, 3-way, Aluminum**
- 3V8 4.3 C_v, 4-way, Aluminum**
- 3VZ 4.3 C_v, Dual Coil, Aluminum **(Only available with 864 Model)**

Valve options

- 0 None
- X Low Temperature Seals **(For temperature of -40°C)**
- M Momentary Override
- L Locking Override
- R Manual Reset **(Not available on 4.3 C_v aluminum valves)**
- N Manual Reset with Latch **(Not available on 4.3 C_v aluminum valves)**
- E External Pilot **(Required for operating pressures below 45 psi)**

Unit Specialty Code (Leave blank for standard builds)

- 316 Stainless Steel Enclosure **(Only available for 784 and 864)**
- 12 pt. Terminal Strip **(Only available for 764 and 784)**

764- N BY 1A 2M02 00 D 3V3 0 = Model number **764-NBY1A2M0200D3V30**

ORDERING NOTES

*540 and 580 valves not available with Valve Options..

**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.



Translations

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WESTLOCK CONTROLS

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