WESTLOCK
CONTROLS

QUANTUM™ LINEAR CONTROL MONITORS
FLAMEPROOF – ATEX/IEC

The Quantum 2800 combines the functionality of an flameproof junction housing, position switches and Falcon solenoid valves to provide cost-effective control monitoring of linear valves

TECHNICAL DATA

Agency approvals
Area classification (ATEX/IEC)
2800 Series   Ex II 2 G D Exd IIC T6 Gb
                            Ex tD A21 IP6X T*C

Enclosure standards (IEC)
2800 Series   IP66/67/68
Switches
2800 Series   SPDT hermetically sealed proximity switches
Enclosures
2800 Series   Aluminum
                            Stainless steel

Falcon solenoid valves
C_v Choice of 1.1, 3.5
Materials   Aluminum and stainless steel

FEATURES

- Flameproof design meeting a wide range of worldwide approvals.
- 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 3/2 and 5/2 way Falcon solenoid valves.
- Solenoid valves with a choice of C_v ratings and coil voltage.
- Factory pre-wired SPDT hermetically sealed proximity switches provide labor savings for position sensing of smaller valves.
- Aluminum enclosures with ultra-low copper content (0.2% maximum) ensure robust performance in corrosive environments.
- Rugged stainless steel enclosure option.
- Conduit entries and numbered terminal strip provided for convenient integration of a solenoid valve.
- Easy back-wiring of 316 Silver Bullet sensors to accommodate position sensing of large valves.
- Magnetic triggering bolts included with every unit.
- Optional adjustable triggering system available in Delrin® or stainless steel.
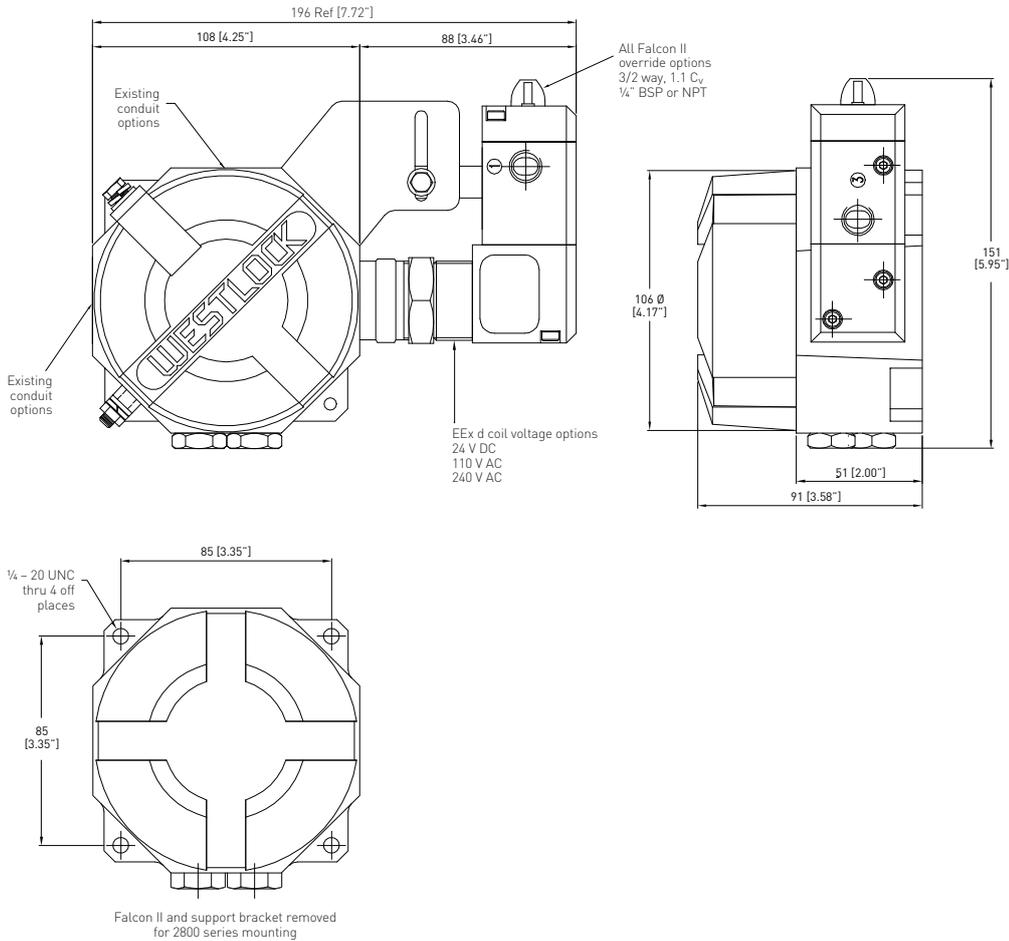- IP rated plugs certified where applicable.

GENERAL APPLICATION

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

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2800 SERIES DIMENSIONS

196 Ref [7.72″]
108 [4.25″]
88 [3.46″]

Existing conduit options

All Falcon II override options 3/2 way, 1.1 C$_v$ ¼″ BSP or NPT

Existing conduit options

EEx d coil voltage options
24 V DC
110 V AC
240 V AC

106 Ø [4.17″]
151 [5.95″]
51 [2.00″]
91 [3.58″]

¼ – 20 UNC thru 4 off places

85 [3.35″]
85 [3.35″]

Falcon II and support bracket removed for 2800 series mounting

Dimensions in mm, imperial dimensions (inches) in parenthesis

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Aluminum with powder coat finish
	Stainless steel with electropolished finish
Temp. range	-30°C to +85°C
Operational life	600,000 cycles (full rated load)
Sensor actuation	Ferromagnetic (stainless steel encapsulated)
Sensor distance	2.54 mm end sensing
Operating time	3.0 ms
Repeatability	0.13 mm
Hysteresis	0.76 mm
Available switches	
	SPDT (hermetically sealed proximity type) switches with tungsten 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 II data sheet for more information.

QUANTUM™ FLAMEPROOF LINEAR CONTROL MONITOR
2800 SERIES SELECTION GUIDE

Housing

28	2800 linear screw lid

Cover style

6	No Beacon

Switch type

9	SPDT hermetically sealed proximity switch

Material

A	Aluminum
S	Stainless steel

Beacon type and color

00	No Beacon

Drive shaft type

0	No shaft (Linear unit)

Solenoid body material

A	Anodized aluminum
E	Stainless steel

Solenoid coil voltage

C	24 V DC
D	24 V AC
H	90-120 V AC
J	220-240 V AC

Solenoid valve specification

(¼" BSP entry; 1.1 C_v)		(¼" NPT entry; 1.1 C_v)	
K	3/2 way - fail closed	U	3/2 way - fail closed
L	3/2 way - fail open	V	3/2 way - fail open
Q	5/2 way - fail closed	1	5/2 way - fail closed

Switch quantity

1	One switch (consult sales office)
2	Two switches

Conduit entries supplied

2	Two entries – all enclosures
3	Three entries – (consult sales office)

Unit specification

AAA	Standard build- M20 conduit entries
ADZ	¾" NPT conduit entries
BEI	Rhodium plated switches
DAV	M25 conduit entries
FAN	½" NPT conduit entries
* * *	Non-standard material – (consult sales office)

Certification

A	ATEX
I	IECEx
*	Other options (consult sales office)

Revision

R*	Internal revision #

28	6	9	A	00	0	A	C	K	2	2	AAA	A	R1 = Model number **2869A000ACK22AAA-AR1**

NOTES

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.