FLOWSERVE

Automax XCL Series UltraSwitch™

Switch box

Experience In Motion

Featuers

XCL/XML-Series Ultraswitch™

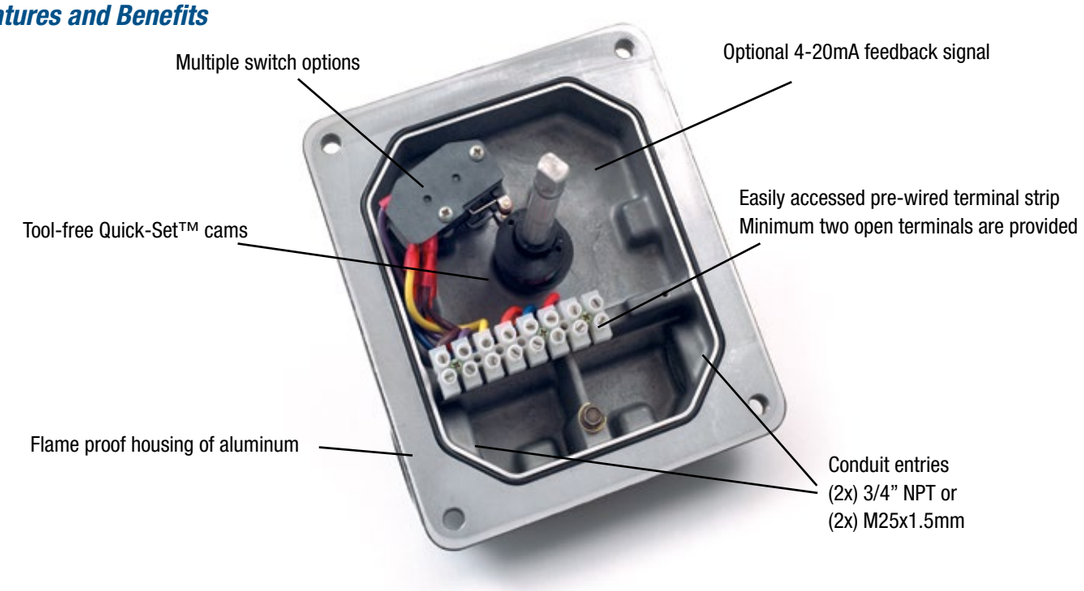
Description

The XCL Series UltraSwich™ provides cost efficient, accurate and reliable position signaling for hazardous locations. The sturdy enclosure is offered in aluminum and is provided with multiple switch options. An external dome style indicator is available.

The XCL is designed to be directly and easily mounted onto actuators for both rotary and linear indication. It may also be used as a junction box for direct connection of solenoid valves. Minimum two open terminals are always provided.

Its compact housing has multiple mounting possibilities with two conduit entries and pre-wired switches to enable easy installation. It is designed to meet IP66 and NEMA Type 4X standards and is offered for general purpose/weather proof and for explosion proof hazardous locations.

Features and Benefits



Approvals
Materials

Hazardous locations approvals

The XCL Series UltraSwich™ has approvals to cover global needs.

All Switch Options
Flame-proof
ATEX(SIRA 06ATEX 3392X)
II 2 G Ex d IIB T5
II 2 D Ex tD A21 IP 65
T5 @ -20°C ≤ Tamb ≤ +55°C,
EN 60079-0:2004
EN 60079-1:2004
EN 61241-0:2006
EN 61241-1:2004

IECEx
Ex d IIB T5
Ex tD A21 IP 65
T5 @ -20°C ≤ Tamb ≤ +55°C,
IEC 60079-0:2004 (Ed.4)
IEC 60079-1:2003 (Ed.5)
IEC 61241-0:2004 (Ed.1)
IEC 61241-1:2004 (Ed.1)

InMetro
BR Ex d IIB T5
T5 @ -20°C ≤ Tamb ≤ +55°C

Mechanical Switch Options
Explosion-Proof (CSA)
Class I, Divisions 1, Groups C and D
Class II, Divisions 1, Groups E, F and G
Class II, Division 2, Groups F and G
Class III (CSA only)

FM U.S. Canada Intrinsically Safe Switch Options
Switch Type: MG, PE, PT, P4, N8, NQ, NP
Class I,II,II Division 1 Groups A, B, C, D, E, F, G T5
Proximity / Solid State Switch Options

Explosion-Proof (CSA)
Class I, Division 1, Groups C and D
Class I, Division 2 Groups A, B, C and D T3
Class II, Divisions 1, Groups E, F and G
Class II, Division 2, Groups F and G
Class III (CSA only)

NOTE: When using a sealed proximity switch (P4, P5, PP) in North American Division 2 applications, a sealing fitting is not required.

Materials

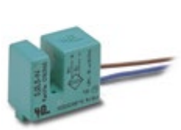
Cam shaft: AISI 304
Housing: Aluminium, powder coated
Screws, washers, springs, rings: AISI 303
Dome Indicator: Polycarbonate
Label: Polyester

Switches

Analog Feedback & Communication

Switch Options

Switch Option	Manufacturer	Part Number	Load Capacity
M1 - SPDT Mechanical	Honeywell MicroSwitch	V7-1C13D8-201	15 A (1/2 HP) at 125 V AC/ 0,5 A at 125 V DC
MG - SPDT Gold Mechanical	Honeywell MicroSwitch	V7-1D11D8-201	1 A at 125 V AC/ 50 mA at 24 V DC
M3 - DPDT Mechanical	Cherry	E19-00A	15 A (3/4 HP) at 125 V AC
MB - DPDT Mechanical	Licon	22-104	10 A (1/2 HP) at 125 V AC
P4 - SPST Proximity	Aleph	PS-6132	0.35 A at 140 V AC / 1 A at 50 V DC (50 W Max.)
P5 - SPDT Proximity	Hamlin	59135-030	0.25 A at 120 V AC / 0.25 A at 28 V DC (3 W Max.)
PE - SPDT Sabre Proximity	Flowserve	XA0199	1 A at 120 V AC / 1 A at 24 V DC (25 W Max.)
PP - SPDT Phazer Proximity	Flowserve	XA0155	3 A at 120 V AC / 2 A at 24 V DC (100 W Max.)
PT - SPST BRS Proximity	Flowserve	XA0157	3 A at 120 V AC / 0.5 A at 24 V DC
N8 - Solid State Proximity	Pepperl + Fuchs	NJ2-V3-N	NAMUR Sensor Output / 5–25 V DC Supply Load Current <1 mA (w/Target) / > 3 mA w/out Target
NP- Solid State Proximity	Pepperl + Fuchs	SJ3.5-N	
NQ - Solid State Proximity	Pepperl + Fuchs	NJ4-12GK-N	
NR - Solid State Proximity	Pepperl + Fuchs	NJ4-12GM40-E1	PNP Sinking / 200 mA max. Current / 10–60 V DC
NS - Solid State Proximity	Pepperl + Fuchs	NJ4-12GM40-E2	NPN Sourcing / 200 mA max. Current / 10–60 V DC
NJ - Solid State Proximity1	IFM Efector	IN0097	20-250V AC/DC NO 2-Wire

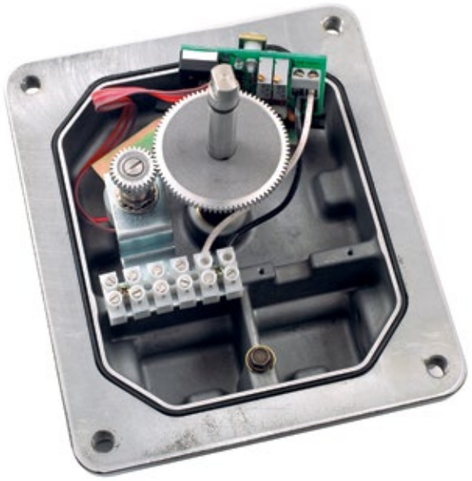


Transmitter 4-20 mA

The XCL offers a 4-20mA feedback signal for true non-local position indication.

The built-in pcb and potentiometer uses proven and reliable technology, leaving you with a clear view of actual position.

A complementary equipment to the top mounted dome indicator.



Communication through AS-Interface (AS-i)

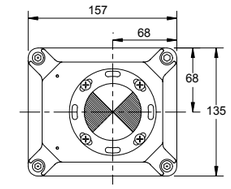
XCL series can be equiped with optional AS-i communication capabilities. This technology offers a very simple, flexible and cost effective network system.

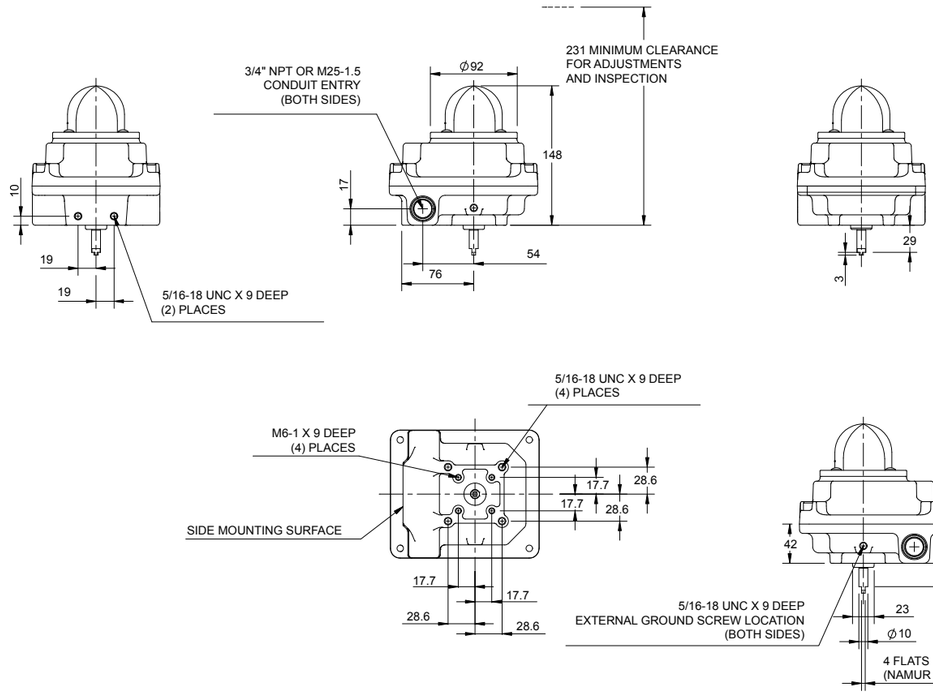
XCL Series Coding

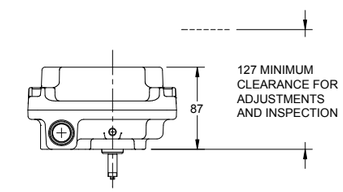
Brand sticker	Blank	Automax
Shaft	N	Namur VDI/VDE 3845
Connections (cable entry)	XCL	2 x 3/4 NPT
	XML	2 x M25 x 1,5
Indicator option	1	Flat cover without indicator
	U	Dome, Red/Green
Qty of switches	0	0 switches
	1	1 switch
	2	2 switches
	4	4 switches
Switch options	M1	SPDT Mechanical switches 250VAC 10A
	MG	SPDT Mechanical switches gold plated
	M3	DPDT Mechanical Cherry
	MB	DPDT Mechanical Licon
	P4	SPST proximity
	P5	SPDT proximity
	PE	Sabre SPDT proximity
	PP	Phazer II SPDT proximity
	PT	BRS SPST Phazer II proximity
	N8	P+F NJ2 V3 N (Namur)
	NQ	P+F NJ4-12GK-N (Namur)
	NR	P+F 12GM40-E1 (3 wire NPN NO)
	NS	P+F 12GM40-E2 (3 wire PNP NO)
	NP	P+F SJ 3,5-N (Namur)
	NJ	IFM IN -2002-ABOA
	FZ	AS-i controller card 2,0 incl. 2 proximity switches
Certificate	14	General Purpose
	18	cCSAus Cl.I, Div1, Gr.CD / Cl.II, Div1, Gr.EFG, Cl.III. ATEX II 2G, Ex d IIB/Ex tD
	19	ATEX II 2 G EEx d IIB T4-T6, II 2 D Ex tD A21 IP65
	25	IEC Ex approval Ex d IIB T4-T6, II 2 D Ex tD A21 IP65
	26	Inmetro BR Ex d IIB T5
	27	cCSAus IS class I, II, III Div1, Gr.ABCDEFG T5
	28	cCSAus Cl.I, Div2, Gr. A,BC&D.
	30	Kosha Ex d IIB T5
	M1	Metal plate cCSAus Cl.I, Div2, Gr. A,BC&D.
	M2	Metal plate cCSAus Cl.I, Div1, Gr.CD / Cl.II, Div1, Gr.EFG, Cl.III.
Analog Output	0	None
	T	4-20 mA transmitter
Wiring options	0	None
Minimun extra terminals	2	2 (standard)
	4	4 (Optional)
	6	6 (Optional, not possible for all switch options)
Acessories	0	None
	L	Cover bolts lubricated with grease
	P	180’ Pot (for analog options: A, B, C)
	V	Viton O-rings
Housing/Surface treatment	0	Black polyester powder coat

Example
NXCLU2M1-18-00200

Dimensions (mm)







p/n: FCD AXENBR0010-04

Hazardous Locations

Flame proof / Explosion proof
Intrinsically safe
Non-Incendive

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