



UGL Series Limit Switch Box



High performance and high reliability

Fully compliant with the latest international standards and regulations

More applicable to a wide range of specifications and higher cost performance

Compact design is better suited for a variety of industrial applications

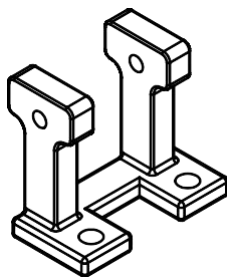


Limit Switch Ordering Code Options

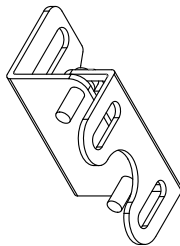
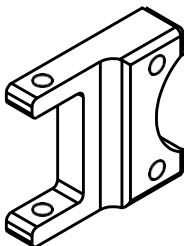
Series	Switch	Conduit Entry				Bracket	Body/Cover	Certificates
UGL-L Weatherproof		Entry	Threads	UGL-L	UGL-D/B	US	Universal	ATEX
		1	½” NPT	✓	✓	P	Universal	
		2	½” G	✓	✓	S-1	30 X 80 X 20mm	
3		0 ;	✓	✓	S-2	30 X130 X 30mm		
4		i 137	✓	✓				
UGL-B Explosion Proof								
UGL-D Explosion Proof								

Mounting Bracket Ordering Code Options

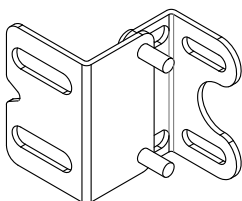
Brackets are supplied with fasteners for top and bottom, to fit standard actuator ISO threads.



PA66

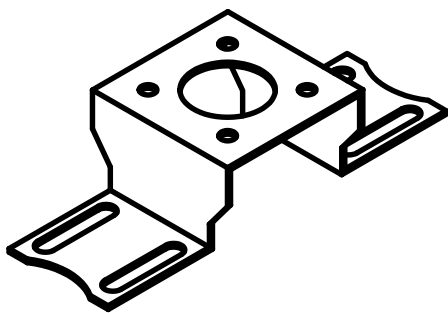


SS304

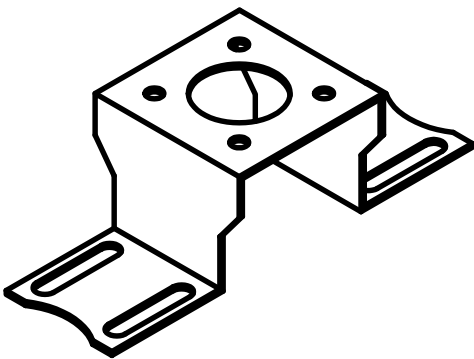


Universal Bracket

CODE	BRACKET MATERIAL	ISO SIZE	ACTUATOR MODELS
P	PA66	30mm X 80mm X 20mm	All Models
US	SS304	30mm X 130mm X 30mm	



S-1



S-2

One-piece Bracket

CODE	BRACKET MATERIAL	ISO SIZE	ACTUATOR MODELS
S-1	SS304	30mm X 80mm X 20mm	UG50 through U G 110
S-2	SS304	30mm X 130mm X 30mm	UG125 through U G 400

UGL- L-Weather Proof Series



FEATURES

- Aluminum die cast enclosure, powder coated for superior corrosion resistance
- Weather proof enclosure to IP68
- Poly carbonate Dome, Shatterproof
- Red and Yellow/Green Indicator
- Color coded cams easy to identify, and easy to set
- Serrated cams locked together ensures adjusted settings secured against any vibration
- Special circuit board eliminates internal wiring
- Circuit board laminated for complete corrosion protection
- Solenoid termination inside the switch box is standard
- Three conduit entries provided as standard
- Conduit entry options : ½" NPT, ½" G, M20X1.5, ¾" NPT
- Complies to Namur mounting standard
- Temperature range -15°C to 80°C
- Bracket available as option



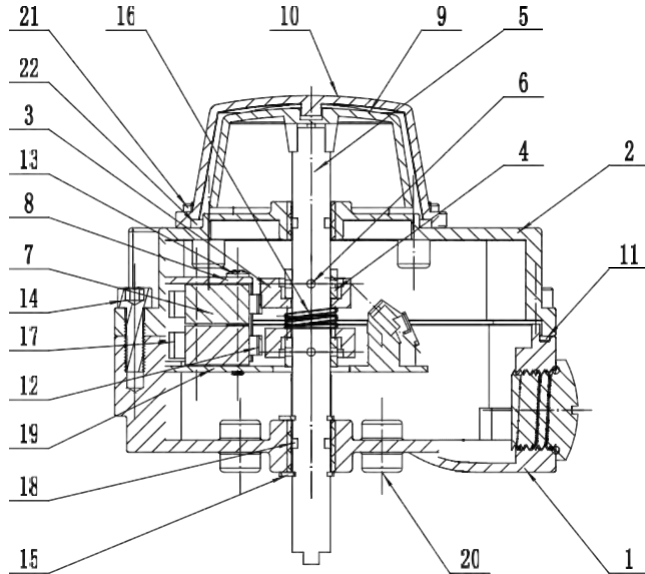
ORDERING OPTIONS

Series	Switch	Conduit Entry			Bracket	Body/Cover	Certificates
UGL-L Weatheproof		Entry	Threads	UGL-L	US	Universal	CE
		1	½” NPT	✓	P	Universal	IP68
		2	½” G	✓	S-1	30 X 80 X 20mm	
		3	M20X1.5	✓	S-2	30 X130 X 30mm	
		4	¾” NPT	✓			
CODE	MAKE	MODEL	RATING				
200	Donghai	KW3-0Z-C11A203	10Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC				
210	Donghai	KW3-0Z-C11A233	16Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC				
220	Cherry	D45X D459-V1LD	15Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC				
230	P & F	NJ2 12 GMN	8 VDC, NC				
231	P & F	NCB2 12GMN35 NO	8V, 24V, 100 mA, NO IS				
232	P & F	NBN4 12GMN40 Z0	6V-24V, 100 mA, NO IS				
233	P & F	NCN4 12GMN35 NO	8 VDC, NC				
234	P & F	NJ4 12GM50 WO	220VAC 200mA 50/60Hz, NC				
235	P & F	NJ2 V3N	8 VDC, 3mA, NCIS				
236	P & F	NBB3 V3 Z4	10-60VDC 100mA, NO				
300	Donghai	KW3-0Z-B117023	5Amp 120 or 250 VAC, 220 VDC NO/NC				
310	Donghai	KW3-0Z-B117053	10Amp 120 or 250 VAC, 220 VDC NO/NC				
320	Cherry	D43 CQ1 RA	5Amp 120 or 250 VAC, 220 VDC NO/NC				
330	Cherry	D45 CQ1 RA	16Amp 120 or 250 VAC, 220 VDC NO/NC				

B	Aluminum-Blue
Y	Aluminum-Yellow
D	Aluminum-Black
S	CF8M Stainless Steel

UGL- L-Weather Proof Series

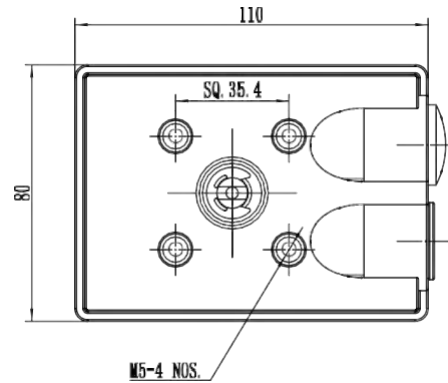
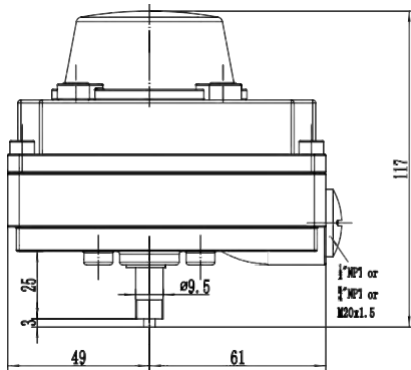
CROSS SECTION



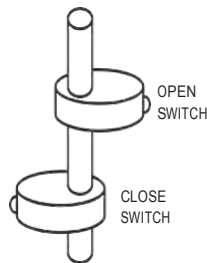
MATERIAL OF CONSTRUCTION

22	'O'RING	1	NBR
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
20	SCREW FOR EARTHING	2	STAINLESS STEEL
19	CIRCUIT BOARD	1	-
18	'O'RING	2	NBR
17	PAD	1	POLYAMIDE
16	SPRING	1	STAINLESS STEEL
15	'E' TYPE CIRCLIP	1	SPRING STEEL
14	SCREW FOR COVER	4	STAINLESS STEEL
13	SCREW FOR CONN STRIP	2	STAINLESS STEEL
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
11	GASKET	1	NBR
10	INDICATOR COVER	1	POLYCARBONATE
9	INDICATOR	1	ABS PLASTIC
8	CONNECTOR STRIP-6WAY	1	POLYIMIDE
7	MSWITCH	2	-
6	SPRING DOWEL	2	SPRING STEEL
5	SHAFT	1	STAINLESS STEEL
4	CAM-LOCK	2	POM
3	CAM	2	POLYCARBONATE
2	COVER	1	ALUMINUM ALLOY
1	HOUSING	1	ALUMINUM ALLOY
S.NO.	DESCRIPTION	QTY.	MATERIAL

DIMENSION DETAILS



WIRING DIAGRAM

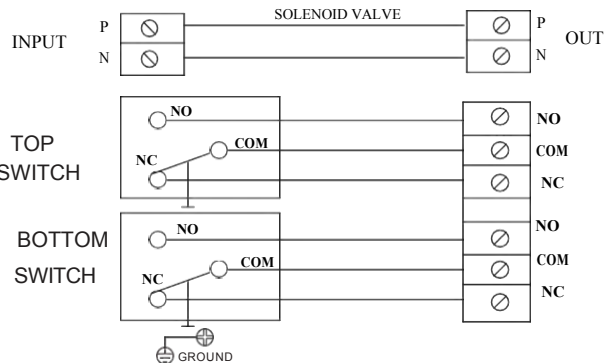


Valve open

Yellow/Green cam

Valve closed

Red cam



UGL-B -Explosion Proof Series



FEATURES

- Explosion proof to I, IIA, IIB, and IIC
- Aluminum die cast enclosure, powder coated for superior corrosion resistance
- Weather proof enclosure to IP68
- Poly carbonate Dome, Shatterproof
- Red and Yellow/Green Indicator
- Color coded cams easy to identify, and easy to set
- Serrated cams locked together ensures adjusted settings secured against any vibration
- Special circuit board eliminates internal wiring
- Circuit board laminated for complete corrosion protection
- Solenoid termination inside the switch box is standard
- Two conduit entries provided as standard
- Conduit entry options : ½" NPT, ½" G, M20X1.5, ¾" NPT
- Complies to Namur mounting standard
- Temperature range -15°C to 80°C
- Bracket available as option

ORDERING OPTIONS

Series	Switch	Conduit Entry			Bracket	Body/Cover	Certificates						
UGL-B Explosion Proof		Entry	Threads	UGL-B	US	Universal	ATEX						
		1	½” NPT	✓	P	Universal							
		2	½” G	✓	S-1	30 X 80 X 20mm							
		3	M20X1.5	✓	S-2	30 X130 X 30mm							
		4	¾” NPT	✓									
					<table><tr><td>B</td><td>Aluminum-Blue</td></tr><tr><td>Y</td><td>Aluminum-Yellow</td></tr><tr><td>D</td><td>Aluminum-Black</td></tr><tr><td>S</td><td>CF8M Stainless Steel</td></tr></table>	B	Aluminum-Blue	Y	Aluminum-Yellow	D	Aluminum-Black	S	CF8M Stainless Steel
B	Aluminum-Blue												
Y	Aluminum-Yellow												
D	Aluminum-Black												
S	CF8M Stainless Steel												

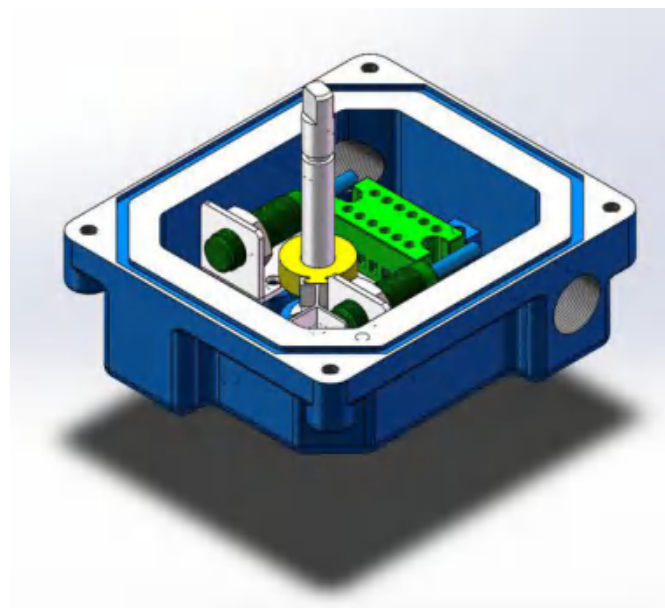
编号	生厂商	型号	规格
200	Donghai	KW3-0Z-C11A203	10Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC
210	Donghai	KW3-0Z-C11A233	16Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC
220	Cherry	D45X D459-V1LD	15Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC
230	P & F	NJ2 12 GMN	8 VDC, NC
231	P & F	NCB2 12GMN35 NO	8V, 24V, 100 mA, NO IS
232	P & F	NBN4 12GMN40 Z0	6V-24V, 100 mA, NO IS
233	P & F	NCN4 12GMN35 NO	8 VDC, NC
234	P & F	NJ4 12GM50 WO	220VAC 200mA 50/60Hz, NC
235	P & F	NJ2 V3N	8 VDC, 3mA, NCIS
236	P & F	NBB3 V3 Z4	10-60VDC 100mA, NO
237			2 x SPDT 16A 125/250VAC Position Transmitter: 4-20mA(output)
300	Donghai	KW3-0Z-B117023	5Amp 120 or 250 VAC, 220 VDC NO/NC
310	Donghai	KW3-0Z-B117053	10Amp 120 or 250 VAC, 220 VDC NO/NC
320	Cherry	D43 CQ1 RA	5Amp 120 or 250 VAC, 220 VDC NO/NC
330	Cherry	D45 CQ1 RA	16Amp 120 or 250 VAC, 220 VDC NO/NC
400	Donghai	KW4-3Z 3B122023	5Amp 120 or 250 VAC, 220 VDC NO/NC

UGL-B -Explosion Proof Cylindrical Prox Switch With Option for Intrinsically Safe Switch



FEATURES

- Intrinsically safe
- Cylindrical inductive proximity sensors (Eexia)
- Explosion proof to I, IIA, IIB, and IIC
- Aluminum die cast enclosure, powder coated for superior corrosion resistance
- Weather proof enclosure to IP68
- Poly carbonate Dome, Shatterproof
- Red and Yellow/Green Indicator
- Color coded cams easy to identify, and easy to set
- Serrated cams locked together ensures adjusted settings secured against any vibration
- Switch box conforms to Ex d IIC, T6 highest level of safety
- Circuit board laminated for complete corrosion protection
- Solenoid termination inside the switch box is standard
- Two conduit entries provided as standard
- Conduit entry options : ½" NPT, ½" G, M20X1.5, ¾" NPT
- Temperature range -15°C to 80°C
- Bracket available as option



ORDERING OPTIONS

Series

UGL-B
Explosion Proof

Switch

Conduit Entry

Entry	Threads	UGL-B
1	½” NPT	✓
2	½” G	✓
3	M20X1.5	✓
4	¾” NPT	✓

Bracket

US	Universal
P	Universal
S-1	30 X 80 X 20mm
S-2	30 X130 X 30mm

Body/Cover

B	Aluminum-Blue
Y	Aluminum-Yellow
D	Aluminum-Black
S	CF8M Stainless Steel

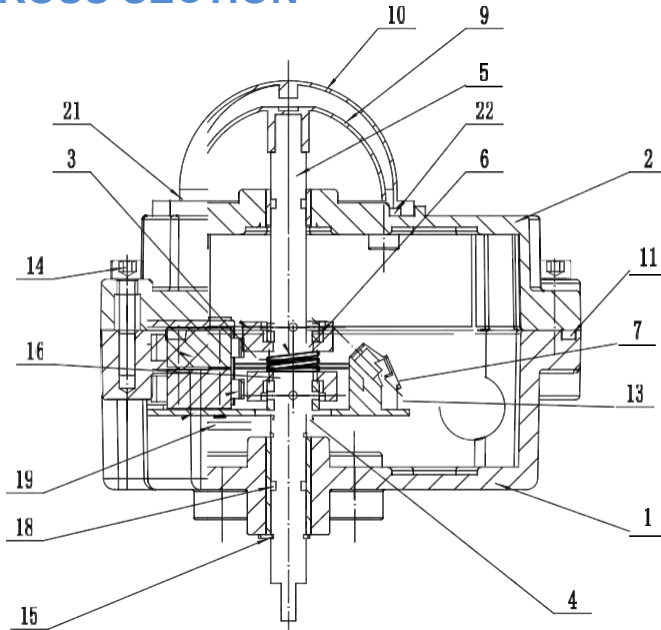
Certificates

ATEX

230	P & F	NJ2 12 GMN	8 VDC, NC
231	P & F	NCB2 12GMN35 NO	8V, 24V, 100 mA, NO IS
232	P & F	NBN4 12GMN40 Z0	6V-24V, 100 mA, NO IS
233	P & F	NCN4 12GMN35 NO	8 VDC, NC
234	P & F	NJ4 12GM50 WO	220VAC 200mA 50/60Hz, NC
235	P & F	NJ2 V3N	8 VDC, 3mA, NCIS
236	P & F	NBB3 V3 Z4	10-60VDC 100mA, NO

UGL-B -Explosion Proof Cylindrical Prox Switch With Option for Intrinsically Safe Switch

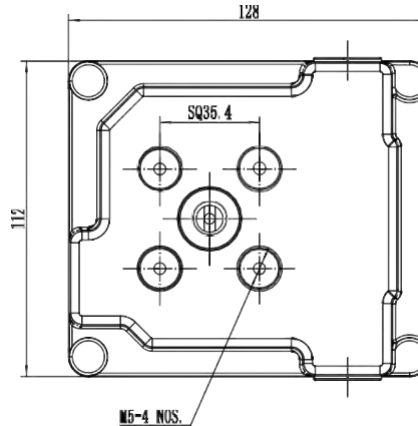
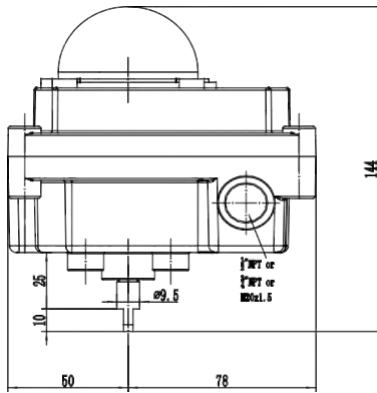
CROSS SECTION



MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
22	'O'RING	1	NBR
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
20	SCREW FOR EARTHING	2	STAINLESS STEEL
19	CIRCUIT BOARD	1	-
18	'O'RING	2	NBR
17	BRACKET	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
15	'E' TYPE CIRCLIP	1	SPRING STEEL
14	SCREW FOR COVER	4	STAINLESS STEEL
13	SCREW FOR CONN STRIP	2	STAINLESS STEEL
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
11	GASKET	1	NBR
10	INDICATOR COVER	1	POLYCARBONATE
9	INDICATOR	1	ABS PLASTIC
8	CONNECTOR STRIP-6WAY	1	POLYIMIDE
7	PROXIMITY SENSOR	2	-
6	SPRING DOWEL	2	SPRING STEEL
5	SHAFT	1	STAINLESS STEEL
4	CAM-LOCK	2	POM
3	CAM	2	POLYCARBONATE
2	COVER	1	ALUMINUM ALLOY
1	HOUSING	1	ALUMINUM ALLOY

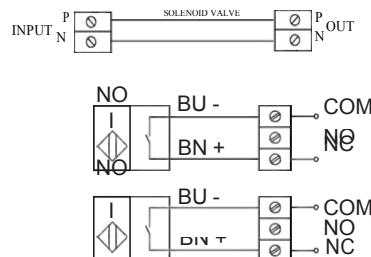
DIMENSION DETAILS



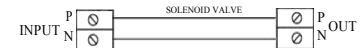
WIRING DIAGRAM

2 WIRE PROXIMITY-NO

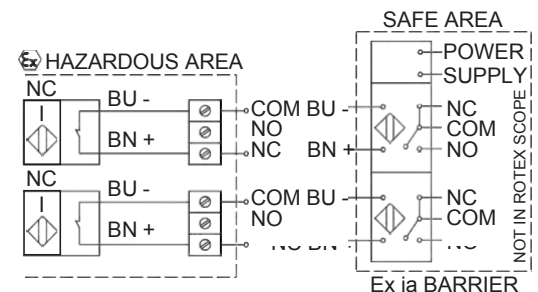
Valve open TOP
Yellow cam SWITCH
Valve closed BOTTOM
Red cam SWITCH



2 WIRE PROXIMITY-NC



Valve open TOP
Yellow cam SWITCH
Valve closed BOTTOM
Red cam SWITCH

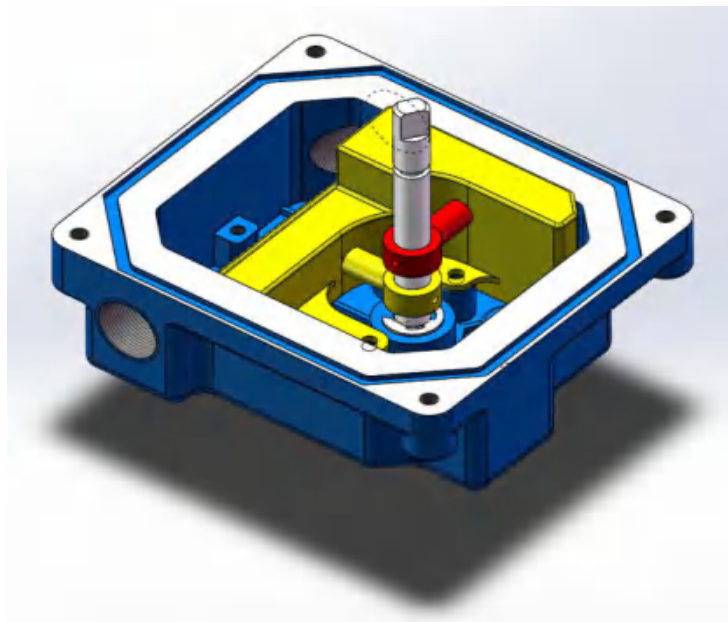


UGL-B -Explosion Proof COMUS sealed SPDT Switch



FEATURES

- Cylindrical inductive proximity sensors (Eexia)
- Explosion proof to I, IIA, IIB, and IIC
- Aluminum die cast enclosure, powder coated for superior corrosion resistance
- Weather proof enclosure to IP68
- Poly carbonate Dome, Shatterproof
- Red and Yellow/Green Indicator
- Color coded cams easy to identify, and easy to set
- Serrated cams locked together ensures adjusted settings secured against any vibration
- Switch box conforms to Ex d IIC, T6 highest level of safety
- Circuit board laminated for complete corrosion protection
- Solenoid termination inside the switch box is standard
- Two conduit entries provided as standard
- Conduit entry options : ½" NPT, ½" G, M20X1.5, ¾" NPT
- Temperature range -15°C to 80°C
- Bracket available as option

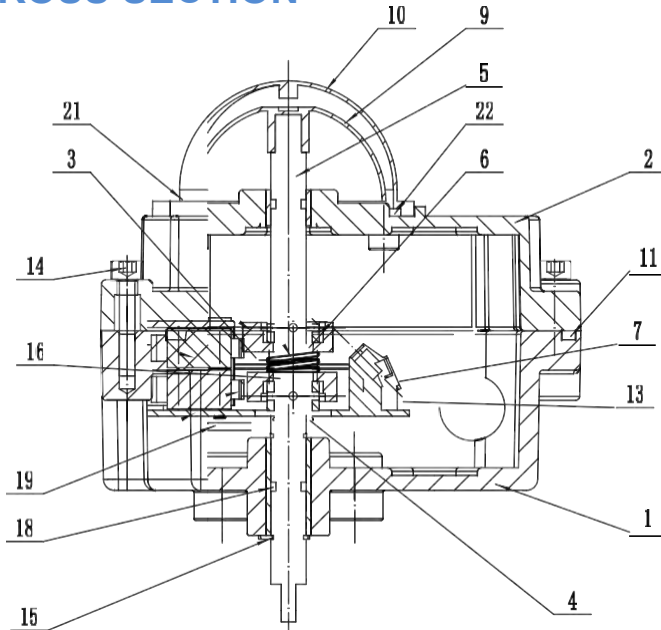


ORDERING OPTIONS

Series		Switch		Conduit Entry			Bracket		Body/Cover		Certificates																																
UGL-B Explosion Proof				<table><tr><th>Entry</th><th>Threads</th><th>UGL -B</th></tr><tr><td>1</td><td>½” NPT</td><td>✓</td></tr><tr><td>2</td><td>½” G</td><td>✓</td></tr><tr><td>3</td><td>M20X1.5</td><td>✓</td></tr><tr><td>4</td><td>¾” NPT</td><td>✓</td></tr></table>			Entry	Threads	UGL -B	1	½” NPT	✓	2	½” G	✓	3	M20X1.5	✓	4	¾” NPT	✓	<table><tr><td>US</td><td>Universal</td></tr><tr><td>P</td><td>Universal</td></tr><tr><td>S-1</td><td>30 X 80 X 20mm</td></tr><tr><td>S-2</td><td>30 X130 X 30mm</td></tr></table>		US	Universal	P	Universal	S-1	30 X 80 X 20mm	S-2	30 X130 X 30mm	<table><tr><td>B</td><td>Aluminum-Blue</td></tr><tr><td>Y</td><td>Aluminum-Yellow</td></tr><tr><td>D</td><td>Aluminum-Black</td></tr><tr><td>S</td><td>CF8M Stainless Steel</td></tr></table>		B	Aluminum-Blue	Y	Aluminum-Yellow	D	Aluminum-Black	S	CF8M Stainless Steel	ATEX	
Entry	Threads	UGL -B																																									
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2	½” G	✓																																									
3	M20X1.5	✓																																									
4	¾” NPT	✓																																									
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Y	Aluminum-Yellow																																										
D	Aluminum-Black																																										
S	CF8M Stainless Steel																																										
CODE	MAKE	MODEL	RATING																																								
500	COMUS		2Amps, 220V AC/DC, 50Hz/60Hz, NO/NC																																								
510	COMUS		20 mA 0-48 VDC, up to 100mA, 0-220 VAC																																								

UGL-B -Explosion Proof COMUS sealed SPDT Switch

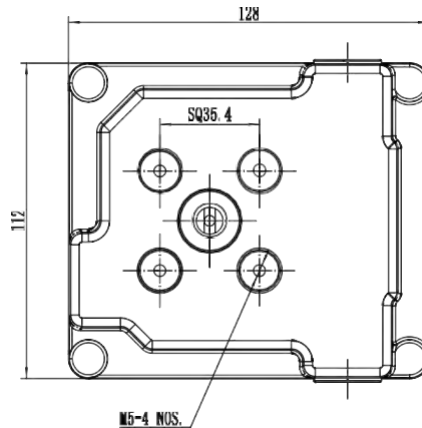
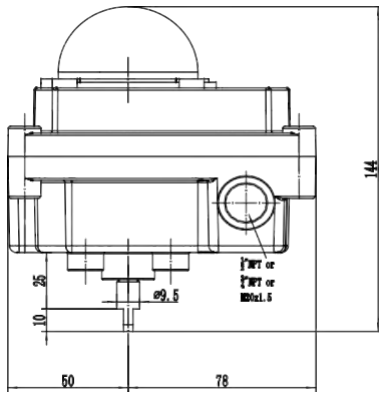
CROSS SECTION



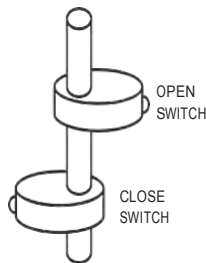
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
22	'O'RING	1	NBR
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
20	SCREW FOR EARTHING	2	STAINLESS STEEL
19	CIRCUIT BOARD	1	-
18	'O'RING	2	NBR
17	CAM INSERT	1	POLYAMIDE
16	SPRING	1	STAINLESS STEEL
15	'E' TYPE CIRCLIP	1	SPRING STEEL
14	SCREW FOR COVER	4	STAINLESS STEEL
13	SCREW FOR CONN STRIP	2	STAINLESS STEEL
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
11	GASKET	1	NBR
10	INDICATOR COVER	1	POLYCARBONATE
9	INDICATOR	1	ABS PLASTIC
8	CONNECTOR STRIP-6WAY	1	POLYIMIDE
7	REED SWITCH ASSEMBLY	2	-
6	SPRING DOWEL	2	SPRING STEEL
5	SHAFT	1	STAINLESS STEEL
4	CAM-LOCK	2	POM
3	CAM	2	POLYCARBONATE
2	COVER	1	ALUMINUM ALLOY
1	HOUSING	1	ALUMINUM ALLOY

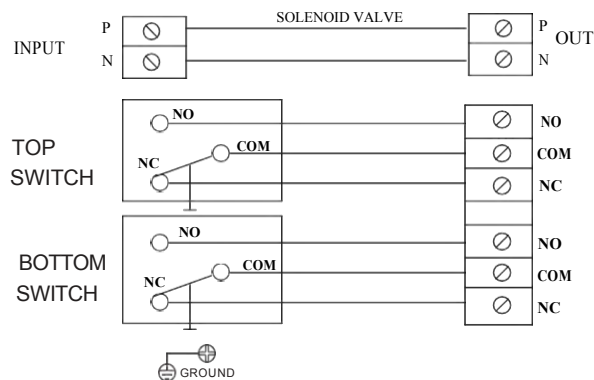
DIMENSION DETAILS



WIRING DIAGRAM



Valve open
Yellow/Green cam
Valve closed
Red cam



UGL-D -Explosion Proof Series



FEATURES

- Explosion proof to I, IIA, IIB, and IIC
- Aluminum die cast enclosure, powder coated for superior corrosion resistance
- Weather proof enclosure to IP68
- Poly carbonate Dome, Shatterproof
- Red and Yellow/Green Indicator
- Color coded cams easy to identify, and easy to set
- Serrated cams locked together ensures adjusted settings secured against any vibration
- Special circuit board eliminates internal wiring
- Circuit board laminated for complete corrosion protection
- Solenoid termination inside the switch box is standard
- Two conduit entries provided as standard
- Conduit entry options : ½" NPT, ½" G, M20X1.5, ¾" NPT
- Complies to Namur mounting standard
- Temperature range -15°C to 80°C
- Bracket available as option

ORDERING OPTIONS

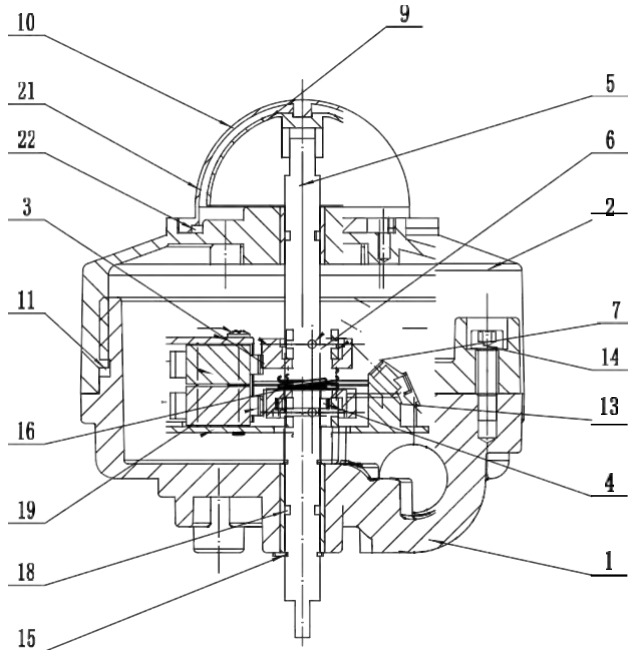
Series	Switch	Conduit Entry			Bracket	Body/Cover	Certificates						
UGL-D Explosion Proof		Entry	Threads	UGL-D	US	Universal	ATEX						
		1	½” NPT	✓	P	Universal							
		2	½” G	✓	S-1	30 X 80 X 20mm							
		3	M20X1.5	✓	S-2	30 X130 X 30mm							
		4	¾” NPT	✓									
					<table><tr><td>B</td><td>Aluminum-Blue</td></tr><tr><td>Y</td><td>Aluminum-Yellow</td></tr><tr><td>D</td><td>Aluminum-Black</td></tr><tr><td>S</td><td>CF8M Stainless Steel</td></tr></table>	B	Aluminum-Blue	Y	Aluminum-Yellow	D	Aluminum-Black	S	CF8M Stainless Steel
B	Aluminum-Blue												
Y	Aluminum-Yellow												
D	Aluminum-Black												
S	CF8M Stainless Steel												

编号	生厂商	型号	规格
200	Donghai	KW3-0Z-C11A203	10Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC
210	Donghai	KW3-0Z-C11A233	16Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC
220	Cherry	D45X D459-V1LD	15Amp 120 or 250 VAC, 220 VDC 50Hz/60Hz, NO/NC
230	P & F	NJ2 12 GMN	8 VDC, NC
231	P & F	NCB2 12GMN35 NO	8V, 24V, 100 mA, NO IS
232	P & F	NBN4 12GMN40 Z0	6V-24V, 100 mA, NO IS
233	P & F	NCN4 12GMN35 NO	8 VDC, NC
234	P & F	NJ4 12GM50 WO	220VAC 200mA 50/60Hz, NC
235	P & F	NJ2 V3N	8 VDC, 3mA, NCIS
236	P & F	NBB3 V3 Z4	10-60VDC 100mA, NO
237			2 x SPDT 16A 125/250VAC Position Transmitter: 4-20mA(output)
300	Donghai	KW3-0Z-B117023	5Amp 120 or 250 VAC, 220 VDC NO/NC
310	Donghai	KW3-0Z-B117053	10Amp 120 or 250 VAC, 220 VDC NO/NC
320	Cherry	D43 CQ1 RA	5Amp 120 or 250 VAC, 220 VDC NO/NC
330	Cherry	D45 CQ1 RA	16Amp 120 or 250 VAC, 220 VDC NO/NC
400	Donghai	KW4-3Z 3B122023	5Amp 120 or 250 VAC, 220 VDC NO/NC

1

UGL-D -Explosion Proof Series

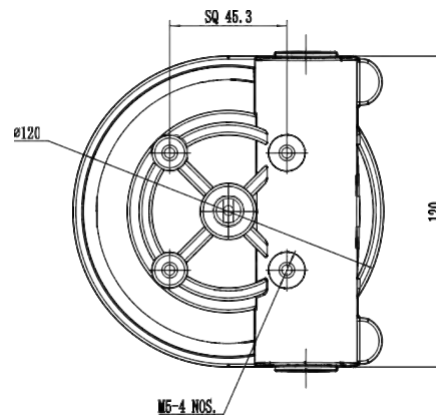
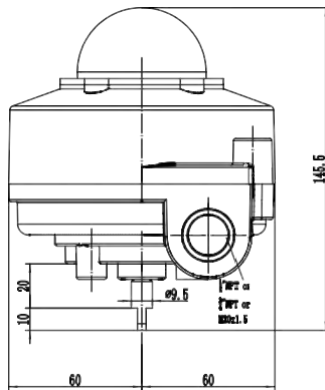
CROSS SECTION



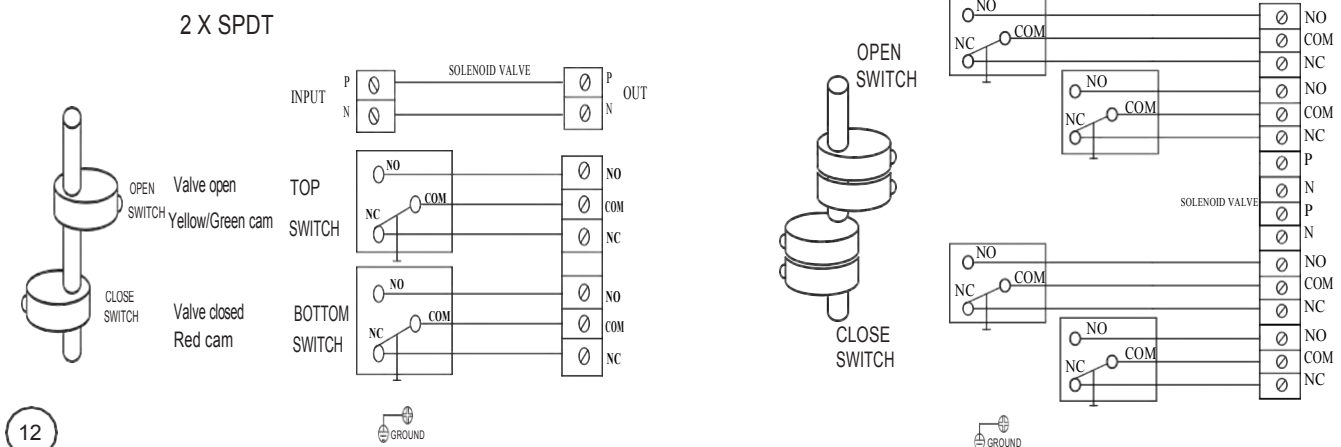
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
22	'O'RING	1	NBR
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
20	SCREW FOR EARTHING	2	STAINLESS STEEL
19	CIRCUIT BOARD	1	-
18	'O'RING	2	NBR
17	PAD	1	POLYAMIDE
16	SPRING	1	STAINLESS STEEL
15	'E' TYPE CIRCLIP	1	SPRING STEEL
14	SCREW FOR COVER	4	STAINLESS STEEL
13	SCREW FOR CONN STRIP	2	STAINLESS STEEL
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
11	GASKET	1	NBR
10	INDICATOR COVER	1	POLYCARBONATE
9	INDICATOR	1	ABS PLASTIC
8	CONNECTOR STRIP-6WAY	1	POLYIMIDE
7	MICROSWITCH (SPDT)	2	-
6	SPRING DOWEL	2	SPRING STEEL
5	SHAFT	1	STAINLESS STEEL
4	CAM-LOCK	2	POM
3	CAM	2	POLYCARBONATE
2	COVER	1	ALUMINUM ALLOY
1	HOUSING	1	ALUMINUM ALLOY

DIMENSION DETAILS



WIRING DIAGRAM



Notice

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