Model 81

The GO Switch Model 81 offers end sensing and an optional Double Pole Double Throw contact arrangement. With its brass or stainless steel housings and global certifications, it is a popular choice around the world.

Features:
- SPDT or DPDT 10A contacts
- End Sensing
- -40⁰ to 221⁰F operating temperature

Options:
- Suitable for Zone 0, 1, or 2 explosion proof
- -40⁰ to 350⁰F high temperature
- Quick disconnect connector
- Underwater capabilities

FAST TRACK DELIVERY

81-20516-A2
CSA Class I Div 2
DPDT Brass, 3 ft. leads

81-20518-A2
UL General Purpose
DPDT Brass, 3 ft. leads

81-20524-A2
CSA Class I Div 1
DPDT Stainless, 3 ft. leads

Model

Repeatability: .002" (.05 mm)

Response Time: 8 milliseconds

Differential: Approx. 1/4" (6 mm)

Operating Temperature: -40⁰ to 221⁰F (-40⁰C to 105⁰C). HiTemp™ option to 350⁰F) (176⁰C)

☑ **81** Size: 1 1/2" (38 mm) square x 4 3/8" (111 mm) overall. Subtract 1/2" (13 mm) from length for side conduit

Need Accessories?
See pp. 92-103 for:
Range Extending Target Magnets
Mounting Brackets
Connectors and more!

Contact Form

Contact Material: Silver cadmium oxide, gold flashed

Forms: DPDT, Form CC; SPDT, Form C Electrically isolated

Ratings: Resistive

AC		DC	
Volts	Amps	Volts	Amps
120	10	24	3
240	5	48	1
480	2.5	120	0.5
		250	0.5

1 Single Pole Double Throw (Form C)

☑ **2** Double Pole Double Throw (Form CC)


Form C - SPDT


Form CC - DPDT

Sensing Range

Target Material: Ferrous steel

Sensing Range: Approx. 1/4" (6 mm)

Sensing Range with Target Magnet: up to 3 7/8" (98 mm) (max)

☑ **0** Approx. 1/4" (6 mm) end sensing

Extended Sensing with External Target Magnets
(See Accessories for External Target Magnets)

Magnet	Sensing	Differential
AMP3	15/16"	3/4"
AMS4	1-3/8"	1-1/8"
AMC5	3-7/8"	2-1/8"
AMF6	2-3/4"	1-5/8"

Outlet Position

Conduit Outlet: 1/2 NPT
Two locations

1 Side outlet

☑ **5** Bottom of enclosure

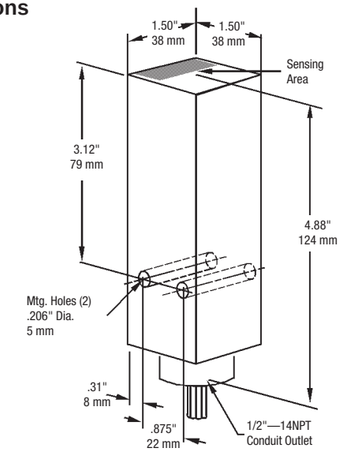
Ordering Guide

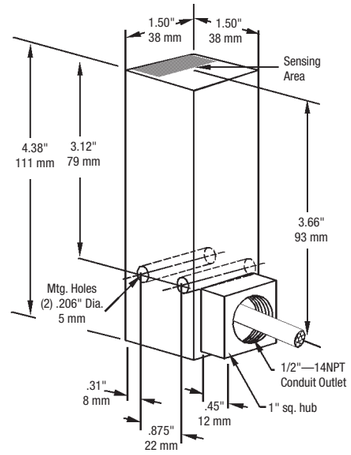
Fill in the boxes to create your 'ordering number.'

Model		Contact Form		Sensing Range		Outlet Position
81	-			0		

Square Switches

Dimensions





Model 81

Enclosure Material

Material: Brass or Stainless Steel

☑ **1** Brass - coated with flat black lacquer

☑ **2** Stainless steel

3 Brass - corrosion resistant coating (polyurethane)

4 Stainless steel - corrosion resistant coating (polyurethane)

Approvals

UL CSA FM APPROVED SAA

1 No Approvals (Wiring must be 00)

2 High temperature to 350⁰F (176⁰C) with Teflon™ insulated leads

3 UL listed explosion proof for Cl I, Div 1 & 2; Grps A,B,C,D; Cl II, Div 1 & 2, Grps E-G; Cl III (Enclosure must be 2 or 4) (Lead seal req'd within 18") (DPDT, leads only)

☑ **4** CSA / FM certified explosion proof for Cl I, Div 1 & 2; Grps A,B,C,D; Cl II, Div 1 & 2, Grps E-G; Cl III. (Enclosure must be 2 or 4)

☑ **6** CSA / FM certified explosion proof for Cl I, Div 1 & 2; Grps A,B,C,D; Cl II, Div 1 & 2, Grps E-G; Cl III

7 CSA certified General Purpose

☑ **8** UL listed General Purpose

A SAA: Ex s IIC T6 IP65; Cl I Zone 1 & 2; EX S IIC T6 IP65; Cl I Zone 0; DIP Cl II (Intrinsically safe with entity approved barrier. Install per NEC Article 501.) (Wiring must be A or 00)

B SAA: High Temp EX S IIC T6 IP65; Cl I Zone 1 & 2; EX S IIC T6 IP65; Cl I Zone 0; DIP Cl II (Intrinsically safe with entity approved barrier. Install per NEC Article 501.) (Wiring must be F)

Wiring Options

Terminal Block
00 Terminal block only (SPDT only, Approvals must be 1)

Lead Wires 18 Gauge (.110" dia.) potted-in PVC insulated AWM / TEW stranded lead wires rated at 221⁰F (105⁰C) 600V UL / CSA listed
- ☑ **A2** 36" (914 mm)
- **A3** 72" (1829 mm)
- **A4** 144" (3658 mm)
- **A_ _ _** Lengths greater than 144" (Specify length in feet (e.g. A150 = 150 ft. of leads))

Cable 18 Gauge (.450" dia.) potted-in SO rubber covered cable rated at 194⁰F (90⁰C) 600V UL / CSA listed (Contact Form must be 1)
- **B2** 36" (914 mm)
- **B3** 72" (1829 mm)
- **B4** 144" (3658 mm)
- **B_ _ _** Lengths greater than 144" (Specify length in feet (e.g. B150 = 150 ft. of cable))

Quick Disconnect Male Quick Disconnect only, potted-in connector. (CSA requires a case ground) (Approval must be 7 or 8) Refer to pp. 92-103 for mating cable assemblies and Aura Light Adapters.

Mini-change®
- **DCA** 3 - pin Mini-change® type
- **DCD** 4 - pin Mini-change® type
- **DCG** 5 - pin Mini-change® type

SubSea™ Underwater Connector (Enclosure must be 2 or 4)
- **3DD** 3 pin, certified not to leak underwater (includes male/female Delrin™ lock sleeves)
- **4DD** 4 pin, certified not to leak underwater (includes male/female Delrin™ lock sleeves)
- **8DD** 8 pin, certified not to leak underwater (includes male/female Delrin™ lock sleeves)
- **3DE** 3 pin right-angle, certified not to leak underwater (Enclosure must be 2 or 4)
- **4DE** 4 pin right-angle, certified not to leak underwater (Enclosure must be 2 or 4)

HiTemp Wire 18 gauge (.070") dia. potted-in Teflon™ insulated leads rated at 482⁰F (250⁰C) 600V UL / CSA listed
- **F2** 36" (914 mm)
- **F3** 72" (1829 mm)
- **F4** 144" (3658 mm)
- **F_ _ _** Lengths greater than 144" (Specify length in feet (e.g. F150 = 150 ft. of leads))

Enclosure Material		Approvals		Wiring Options
	-		-	

Agency Approvals

Termination Options	(1) No Approvals	(3) UL Class 1 Div 1	(4) CSA/FM Class 1 Div 1	(6) CSA/FM Class 1 Div 2	(7) CSA General Purpose	(8) UL General Purpose	(A) SAA Exs IIc T6 IP65
00 - Terminal Block	X						
A - Potted PVC Leads		X	X	X	X	X	X
B - Potted SO Cable		X	X	X	X	X	
D - Quick Disconnect					X	X	
D - SubSea™ Connector					X	X	
F - Potted HiTemp™ Leads		X	X	X	X	X	

X = Approvals Available

NEMA Ratings

NEMA CLASSES	Non-Hazardous				Hazardous	
	4	4X	6	6P	7	9
00 - Terminal Block	X					
A - Potted PVC Leads	X	SS	X	SS	SS	SS
B - Potted SO Cable	X	SS	X	SS	SS	SS
D - Quick Disconnect	X	SS	X	SS		
D - SubSea™ Connector	X	SS	X	SS		
F - Potted HiTemp™ Leads	X	SS	X	SS	SS	SS

SS = Stainless steel
X = Designed to meet respective NEMA specifications

Wiring Diagrams (male view)

4 Wire PVC & HiTemp Leads	
N/C	Red
N/O	Blue
COM	Black
GND	Green

Terminations A & F

SO Cable	
N/C	Red
N/O	White
COM	Black
GND	Green

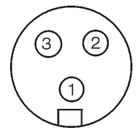
Termination B

PVC Leads, Cable & Teflon Leads	
N/C1 - Red	N/C2 - Red/White Stripe
N/O1 - Blue	N/O2 - Blue/White Stripe
COM1 - Black	COM2 - Black/White Stripe
	GND - Green

Termination A & F

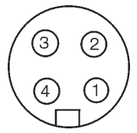
Mini-Change QDC - 3 Pin	
Pin 1	COM
Pin 2	N/C
Pin 3	N/O

Termination DCA



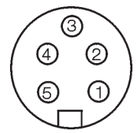
Mini-Change QDC - 4 Pin	
Pin 1	COM
Pin 2	N/O
Pin 3	N/C
Pin 4	GND

Termination DCD



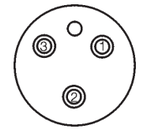
Mini-Change QDC - 5 Pin	
Pin 1	N/O
Pin 2	N/C
Pin 3	GND
Pin 4	Inactive
Pin 5	COM

Termination DCG



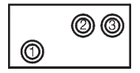
SubSea - 3 Pin - Lock Sleeve	
Pin 1	N/C
Pin 2	COM
Pin 3	N/O

Termination 3DD



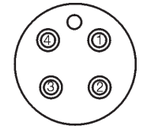
SubSea - 3 Pin - Right Angle	
Pin 1	COM
Pin 2	N/O
Pin 3	N/C

Termination 3DE



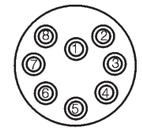
SubSea - 4 Pin - Lock Sleeve	
Pin 1	COM
Pin 2	N/O
Pin 3	N/C
Pin 4	GND

Termination 4DD



SubSea - 8 Pin - Lock Sleeve	
Pin 1	COM_1
Pin 2	N/O1
Pin 3	N/C_1
Pin 4	GND
Pin 5	N/C_2
Pin 6	N/O_2
Pin 7	COM_2
Pin 8	Inactive

Termination 8DD



Mini-Change QDC - 7 Pin	
Pin 1	N/O_2
Pin 2	COM_1
Pin 3	N/C_2
Pin 4	N/C_1
Pin 5	COM_2
Pin 6	N/O_1
Pin 7	GND

Termination DCH