GO SWITCH

LEVERLESS LIMIT SWITCHES
PROXIMITY SENSORS FOR HARSH ENVIRONMENTS AND TOUGH APPLICATIONS

- Suitable for use in hot, cold, wet, dirty, abusive, corrosive, and explosive environments

- Certified for use in all hazardous areas

- Wide variety of shapes, sizes, and sensing ranges

- Completely unique technology and design

IECEx Ex ATEX CE FM APPROVED CSA UL

Ex NEPSI JIS KOSHA INMETRO PCT

TOPWORX
Control Without Compromise

Using a completely unique technology, GO® Switches outperform conventional limit switches and proximity sensors in the toughest applications. If your plant conditions are hot, cold, wet, dirty, abusive, corrosive, or explosive, be sure to specify GO® Switch leverless limit switches for a long, trouble-free life.

GO® Switch Quick Selection Guide

GO SWITCH

Industrial Environment

	Model 11 Long Range	Model 21 Side Sensing	Model 31 End Sensing	Model 35 Valve Position Sensor	Model 81 DPDT	Model 71 3/8" diameter	Model 72 3/8" diameter
General Purpose	●	●	●	●	●	●	●
Intrinsically Safe Zone 0 (Class I, Div 1)	●	●	●	●	●	●	●
Explosion Proof Zone 1 (Class I, Div 1)	●	●	●		●	●	●
Non-Incendive Zone 2 (Class I, Div 2)	●	●	●		●	●	●
Underwater	●	●			●	●	
High Temperature	●		●		●	●	●

Square Position Sensors   **Round Position Sensors**

Virtually all GO Switches offer the following features and benefits:

Features

Proximity triggering with ferrous metal - no exposed moving parts

Immune to electrical noise, weld fields, and radio frequency interference

Consume no power to operate

Can be wired AC or DC, N/O or N/C, in series or parallel

All-metal housings with contacts potted and sealed from the environment

Multiple wiring options, including lead wires, cables, quick disconnects, etc.

A wide variety of hazardous area certifications for Zone 0, 1, and 2

Operating temperatures ranging from -40°C (-40°F) to204°C (400°F).

Benefits

Eliminate broken or bent lever arms, poor mechanical alignment, and poor repeatability

Eliminate electrical problems common to inductive proximity sensors

Eliminate leakage current and voltage drops

Flexibility to cover a variety of application needs with fewer part numbers

Performance is not affected by dust, dirt, moisture, or most caustics, corrosives, or chemicals

Easy installation and seamless integration into your existing plant wiring standards

Compliance with intrinsically safe, explosion proof, and non-incendive requirements

Ability to monitor plant processes in areas too hot or too cold for conventional sensors
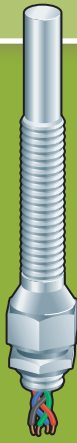
Model 73
5/8" diameter

Model 74
5/8" diameter

Model 75
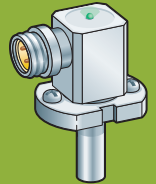Long Threads

Model 76
Long Threads

Model 77
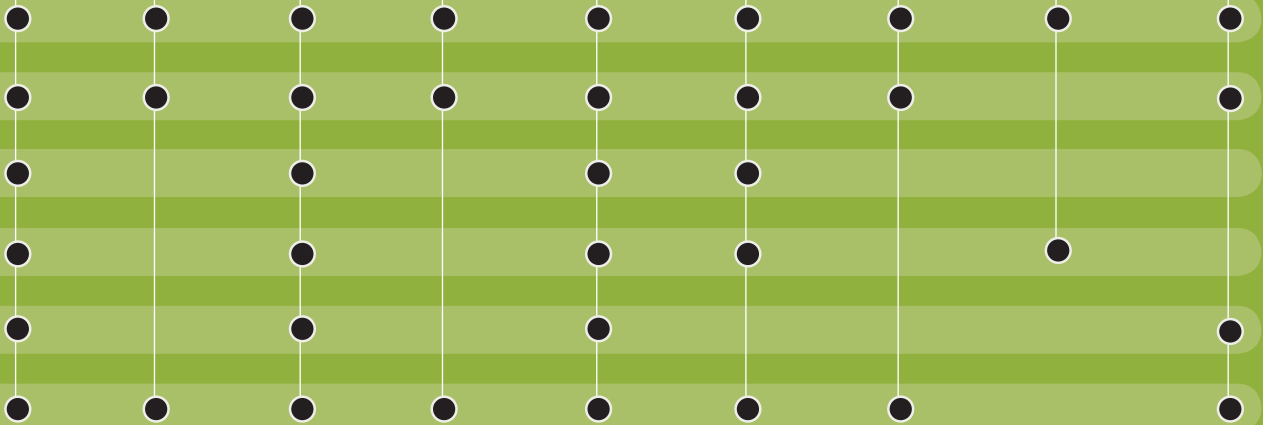Long Body

Model 7G/7I
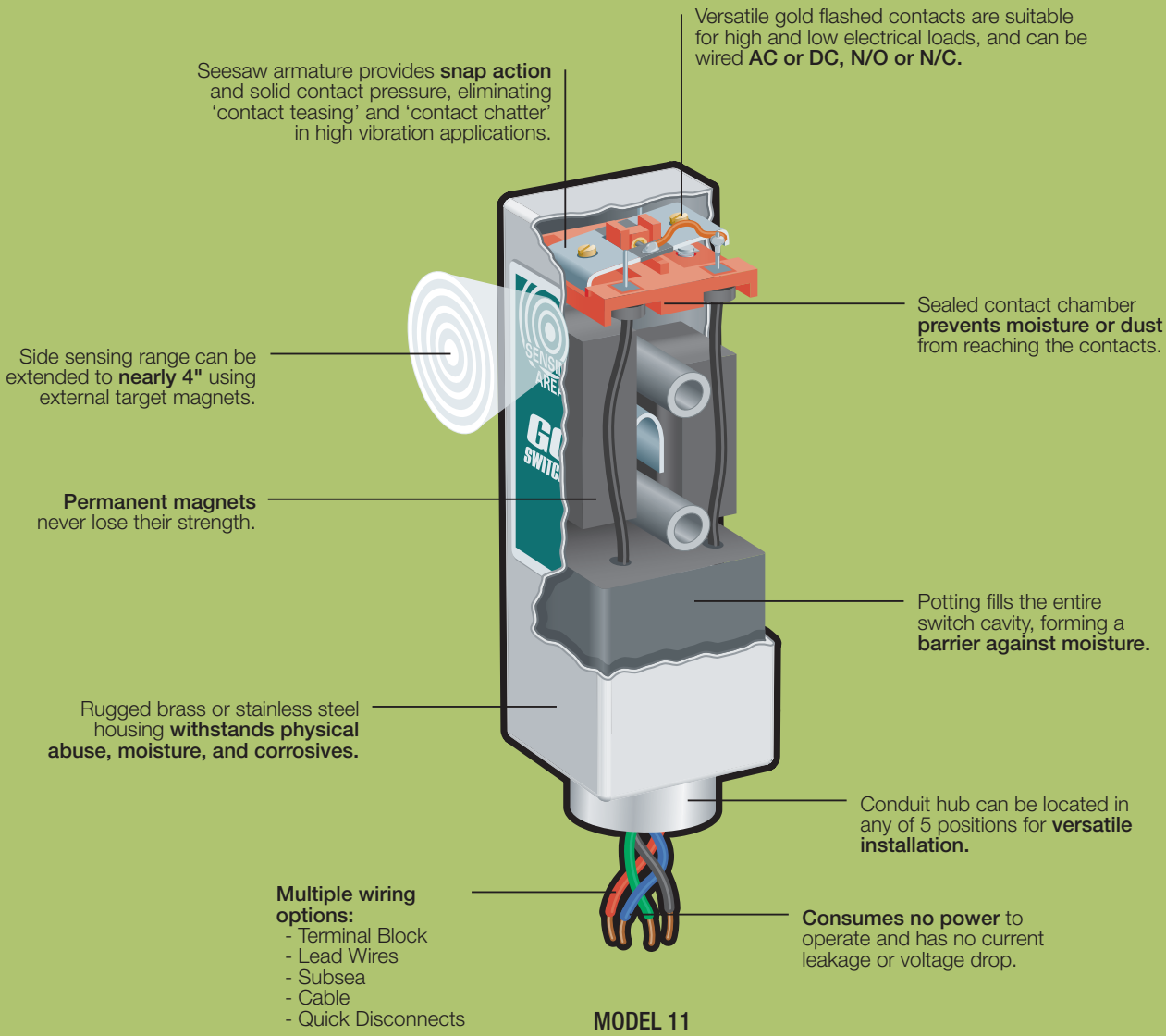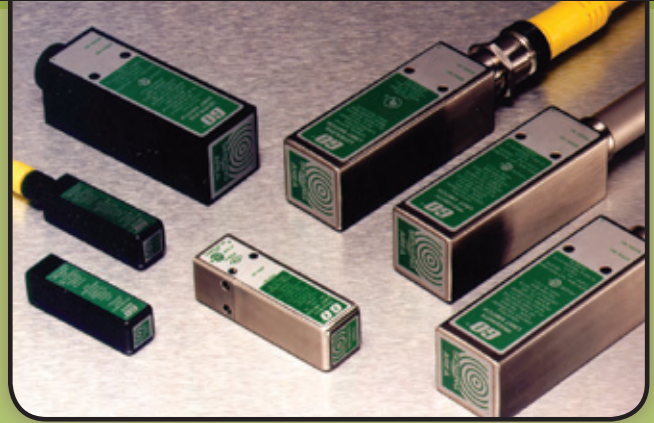DPDT

Model 7H
DPDT

Model 7L
BriteLite LEDs

Model 7C-7F
Cylinder Position Sensor

The original "leverless limit switches," 10, 20, 30, and 80 Series GO® Switches are the ideal replacements for traditional mechanical limit switches. Their sealed contacts, rugged enclosures, no-touch sensing, and snap action response make these switches the ultimate problem solvers for troublesome limit switch applications.

Seesaw armature provides **snap action** and solid contact pressure, eliminating 'contact teasing' and 'contact chatter' in high vibration applications.

Versatile gold flashed contacts are suitable for high and low electrical loads, and can be wired **AC or DC, N/O or N/C.**

Side sensing range can be extended to **nearly 4"** using external target magnets.

Sealed contact chamber **prevents moisture or dust** from reaching the contacts.

Permanent magnets never lose their strength.

Potting fills the entire switch cavity, forming a **barrier against moisture.**

Rugged brass or stainless steel housing **withstands physical abuse, moisture, and corrosives.**

Conduit hub can be located in any of 5 positions for **versatile installation.**

Multiple wiring options:
- Terminal Block
- Lead Wires
- Subsea
- Cable
- Quick Disconnects

Consumes no power to operate and has no current leakage or voltage drop.

MODEL 11

10-20 SERIES
GO® Switch Models 11 and 21 are the world's original leverless limit switches.

Their simple design, rugged enclosures, long sensing ranges, and global approvals make these switches the ideal choice wherever reliable position sensing is needed.

11/21 Features
- SPDT contacts rated 10amp/120vac, 3amp/24vdc
- AC/DC, NO/NC flexibility
- Side sensing
- Brass or stainless enclosures
- Inherently Intrinsically Safe
- -40° to 105°C (-40° to 221°F) operating temperature

Options
- Zone 0, 1, or 2 hazardous areas
- 176°C (350°F) high temperature
- Quick disconnect connectors
- Underwater capabilities

80 SERIES
The GO® Switch Model 81 offers end sensing and the optional worlds's only Double Pole Double Throw contact arrangement.

With its brass or stainless steel housings and global certifications, it is a popular choice around the world.

81 Features
- SPDT or DPDT contacts rated 10amp/120vac, 3amp/24vdc
- End sensing
- Brass or stainless enclosures
- Inherently Intrinsically Safe
- -40° to 105°C (-40° to 221°F) operating temperature

Options
- Zone 0, 1, or 2 hazardous areas
- 176°C (350°F) high temperature
- Quick disconnect connectors
- Underwater capabilities

" In 1979 we replaced our mechanical switches on wheel chockers for car loading with 10 series GO Switches and never had to replace them. The switches go through heavy wash downs daily. Before switching to GO Switches we were changing the mechanical switches weekly. "
- Project **Engineer,** Power Plant

" GO Switch is one of the most reliable products that we buy. I wish everything we buy would last as long and perform as well as GO Switch. "
- **Lead Engineer,** Engineering Firm

35 SERIES
The GO Switch Model 35 leverless limit switch has set the standard for reliable performance in valve position monitors.

With its hermetically sealed contacts, high current rating, excellent repeatability, and superior resistance to vibration, moisture, contaminants, abuse, and temperature extremes, the GO Switch 35 Serices clearly outperforms any other valve position sensor on the planet. When ordering valve position monitors and switchboxes, be sure to specify "GO Switch Inside."

35 Features
- SPDT or DPDT contacts rated 4amp/120vac, 3amp/24vdc
- AC/DC, NO/NC flexibility
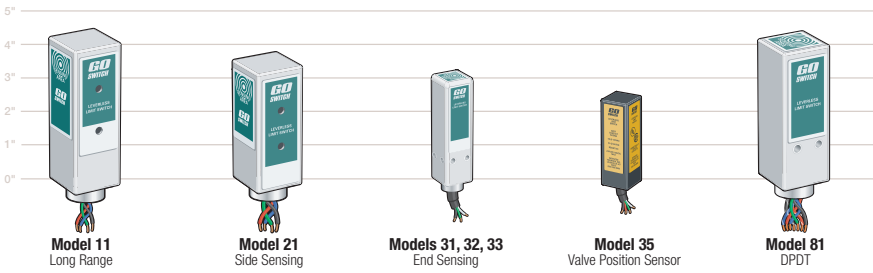- Inherently Intrinsically Safe
- Hermetically Sealed contacts

Options
- Stainless steel housing
- DPDT contacts

NEW!

NEW 35 SERIES OPTIONS
Hermetically Sealed DPDT Contacts
Stainless Steel Housing

Model 11	Model 21	Models 31, 32, 33	Model 35	Model 81
Long Range	Side Sensing	End Sensing	Valve Position Sensor	DPDT

Model	Contact Form	Sensing Range	Outlet Position
Models 11, 21 & 81	✓ **1** Single Pole Double Throw (Form C)	✓ **0** 1/4" end sensing (Model 81 only)	✓ **1** Behind sensing area
✓ **11** 1 1/2" square x 4 9/16" overall. (Add 1/2" for bottom conduit outlet)	✓ **2** Double Pole Double Throw (Form CC) (Model 81 Only)	✓ **1** Standard sensing - 3/8" side sensing (Model 11 & 21 only)	**2** Left of sensing area (Models 11 & 21 only)
✓ **21** 1 1/2" square x 3 13/16" overall. (Add 1/2" for bottom conduit outlet)	**3** Single Pole Double Throw (Form C) Latching (Maintained contact) (Models 11 & 21 only) (Outlet 2, 4 or 5 only)	✓ **2** Extended sensing - 9/16" side sensing (Contact form must be 1 or 3) (Model 11 only)	**3** Right of sensing area (Models 11 & 21 only)
✓ **81** 1 1/2" square x 4 3/8" overall. (Add 1/2" for bottom conduit outlet)	**5** Double Make Double Break (Form Z) Two-circuit (Models 11 & 21 only)	**7** Precision sensing - 1/4" side sensing (Minimal differential) (Models 11 & 21 only)	**4** Same side as sensing area (Models 11 & 21 only)
	6 Double Make Double Break (Form Z) Two circuit, Latching (Maintained contact) (Outlet position must be 2, 4 or 5) (Models 11 & 21 only)		✓ **5** Bottom of enclosure
Models 31 & 35	✓ **1** Single Pole Double Throw (Form C) (Model 35 hermetically sealed)	✓ **3** Approx. 1/10" end sensing (Model 35 only)	✓ **3** No conduit hub, bottom outlet (Model 35 only)
31 1" square x 3 1/4" overall	**2** Double Pole Double Throw (Form CC) Hermetically sealed (Model 35 only)	**7** Approx. 1/4" end sensing (Model 31 only)	**5** Bottom of enclosure (Model 31 only)
✓ **35** 3/4" square x 2 1/2" overall			

Ordering Guide
Fill in each box to create
a complete model number.

Model	Contact Form	Sensing Range	Outlet Position

Ordering Examples
11-12110-00
81-20524-A2

✔ Denotes *FastTrack Delivery* option most likely to be available for immediate shipment.

GO SWITCH

FastTrack Delivery

11-11110-00
Cl I Div 2 Non-Incendive
Side Terminal Block

11-12110-00
Cl I Div 2 Non-Incendive
Extended Range, Side Terminals

11-12510-00
Cl I Div 2 Non-Incendive
Bottom Terminal Block

11-12518-A2
General Purpose
3 ft. Lead Wires

21-11110-00
Cl I Div 2 Non-Incendive
Side Terminal Block

21-11510-00
Cl I Div 2 Non-Incendive
Bottom Terminal Block

21-11516-A2
Cl I Div 2 Non-Incendive
3 ft. Lead Wires

21-11524-A2
Cl I Div 1 Explosion Proof
3 ft. Lead Wires

35-13319-A2
Hermetic Seal,
Valve Sensor

81-20518-A2
General Purpose
DPDT, 3 ft. Lead Wires

81-20524-A2
Cl I Div 1 Explosion Proof
DPDT Stainless, 3 ft. Leads

Enclosure Materials

✔ **1** Brass with flat black lacquer coating

✔ **2** Stainless steel*

3 Brass with corrosion resistant coating

4 Stainless steel with corrosion resistant coating

---

1 Copper - coated with flat black lacquer (Model 35 only)

2 Stainless steel* (Model 31 only)

4 Stainless steel - corrosion resistant coating (polyurethane)* (Model 31 only)

*All-welded stainless steel switches are recommended for wet or harsh environments.

Approvals

✔ **0** CSA / FM Cl I, Div 2, Grps A-D; Cl II, Div 2, Grps F & G, Cl III Terminal Block (Contact form must be 1 or 3) (Wiring must be 00) (Models 11 & 21 only)

2 High temperature to 350°F (Models 11 & 81; Contact Form 1 or 3 (1 or 2 for Model 81) (Sensing 1 (0 for Model 81); Enclosure 2; Wiring F only)

3 UL Cl I, Div 1 & 2; Grps A-D; Cl II, Div 1 & 2, Grps E-G; Cl III (Enclosure must be 2 or 4) (Lead seal required) (Wiring A, B, and F only)

✔ **4** CSA / FM Cl I, Div 1; Grps A-D; Cl II, Div 1; Grps E-G; Cl III. (Enclosure must be 2 or 4) (Lead seal required) (Wiring A, B, and F only)

5 MSHA approved "Explosion Proof" (Enclosure 2 only) (Wiring B3 or longer) (Models 11 & 21 only) (Wiring A, B, and F only)

✔ **6** CSA / FM Cl I, Div 2; Grps A-D; Cl II, Div 2; Grps E-G; Cl III. (Lead seal required)

7 CSA General Purpose

✔ **8** UL General Purpose

---

4 CSA / FM Cl I, Div 1; Grps A-D; Cl II, Div 1; Grps E-G; Cl III. (Wiring A, B, or F only) (Model 31 only) (Lead seal required)

6 CSA / FM Cl I, Div 2; Grps A-D; Cl II, Div 2; Grps E-G; Cl III; (Wiring A, B, or F only) (Model 31 only) (Lead seal required)

7 CSA certified General Purpose

8 UL listed General Purpose

✔ **9** Hermetic seal; UL listed General Purpose (Model 35 only)

Wiring Options

Terminal Block
✔ **00** (Models 11 & 21 only)

Lead Wires - 18 Gauge
✔ **A2** 36"
A3 72"
A4 144"
A_ _ _ Greater than 144" - specify length in 5ft. increments

Cable - 18 Gauge (Model 81 contact form 1 only)
B2 36"
B3 72"
B4 144"
B_ _ _ Greater than 144" - specify length in 5ft. increments

Mini Change Connector (Models 11, 21, 31, 81) (Approval 7 or 8 only; 3 pin is 8 only)
DCA 3 pin
DCD 4 pin
DCG 5 pin
DCH 7 pin (Model 81 only)

Micro Change Connector (Models 11, 21, 31, 81) (Approval 7 or 8 only; 3 pin is 8 only)
DBA 3 pin
DBD 4 pin
DBG 5 pin

SubSea Connector (Models 11, 21, 81) (Enclosure 2 or 4 only) (Approval 7 or 8 only; 3 pin is 8 only)
3DD 3 pin
4DD 4 pin
8DD 8 pin (Model 81 only)
3DE 3 pin 90º
4DE 4 pin 90º

Hi-Temp™ Leads (Teflon insulated) 18 Gauge
F2 36"
F3 72"
F4 144"
F_ _ _ Greater than 144" - specify length in 5ft. Increments

| Enclosure Materials | Approvals | Wiring Options | 9 |

With their all stainless steel construction, flexible AC/DC, NO/NC, and SPDT/DPDT contact configurations, superior corrosion resistance, and global certifications for all hazardous areas, 70 Series GO Switches outperform inductive proximity sensors in the toughest applications.

End sensing range can be extended using external target magnets.

Permanent magnets never lose their strength, even when threaded into ferrous metal.

English or metric threads available.

Sealed contact chamber **prevents moisture or dust** from reaching the contacts.

One-piece stainless steel construction makes this **the most durable proximity sensor in the world.**

Consumes no power to operate and has no current leakage or voltage drop.

Multiple wiring options:
Lead Wires -
Cable -
Subsea -
Quick Disconnects -

Sensing face is stainless steel rather than plastic, preventing damage due to incidental physical contact.

Three magnets provide **snap action** and solid contact pressure, eliminating 'contact teasing' and 'contact chatter' in high vibration applications.

Unique sawtooth contacts are suitable for high and low electrical loads, and can be wired **AC or DC, N/O or N/C.**

Potting fills the entire switch cavity, forming a **barrier against moisture.**

MODEL 73

MODELS 71-72

GO® Switch Models 71 and 72 have the smallest diameters of any round leverless limit switches, and are used extensively in factory automation applications.

Features
° SPDT contacts rated 4amp/120vac, 3amp/24vdc
° AC/DC, NO/NC flexibility
° Stainless steel housings
° Inherently Intrinsically Safe
° -40° to 105°C (-40° to 221°F) operating temperature

Options
° Zone 0, 1, or 2 hazardous areas
° 204°C (400°F) high temperature
° Quick disconnect connectors
° English or metric threads

71   72

MODELS 7G, 7H & 7L

GO® Switch Models 7G, 7H, and 7i offer hermetic seal or Double Pole Double Throw contact configurations. Model 7L has LEDs for local performance monitoring.

Features
° SPDT or DPDT contacts rated 4amp/120vac, 3amp/24vdc
° AC/DC, NO/NC flexibility
° 250mA/120VAC, 24VDC.
° Stainless steel housings
° Inherently Intrinsically Safe
° -40° to 105°C (-40° to 221°F) operating temperature

Options
° Zone 0, 1, or 2 hazardous areas
° 204°C (400°F) high temperature
° Quick disconnect connectors
° Hermetically sealed contacts
° English or metric threads

7G   7H   7L

" Over the years, I have seen GO Switches take crushing blows from large falling rocks in the cement industry and still function flawlessly. "
- **Electrical Engineer,** US Cement Factory

" GO Switch is the only dependable switch we use. "
- **Project Engineer,** Gulf Coast Chemical Plant

MODELS 73-77

The GO® Switch Model 73 is our most popular leverless limit switch.

Its solid stainless steel construction and global certifications make it the ideal choice for a variety of applications. Model 74 is the same, without the conduit hub. Models 75, 76, and 77 are longer, with more thread surface and adjustability.
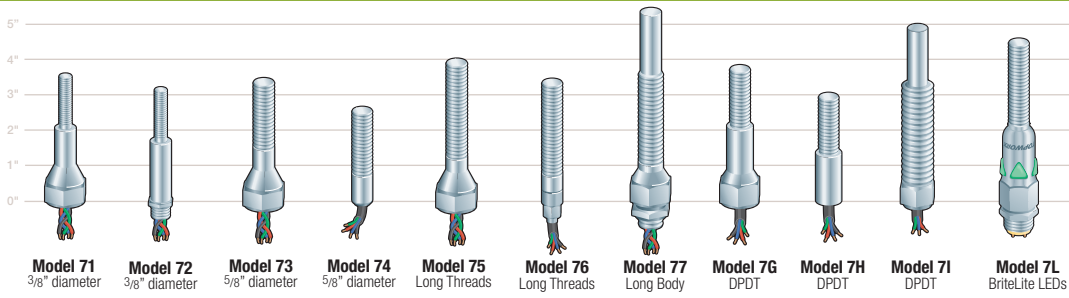
Features
° SPDT contacts rated 4amp/120vac, 3amp/24vdc
° AC/DC, NO/NC flexibility
° Stainless steel housings
° Inherently Intrinsically Safe
° -40° to 105°C (-40° to 221°F) operating temperature

Options
° Zone 0, 1, or 2 hazardous areas
° 204°C (400°F) high temperature
° Quick disconnect connectors
° Underwater capabilities
° English or metric threads

73   74   75   76   77

| Model 71
3/8" diameter | Model 72
3/8" diameter | Model 73
5/8" diameter | Model 74
5/8" diameter | Model 75
Long Threads | Model 76
Long Threads | Model 77
Long Body | Model 7G
DPDT | Model 7H
DPDT | Model 7I
DPDT | Model 7L
BriteLite LEDs |

Model

71   3/8" x 3 15/16" - 1/2" NPT conduit

72   3/8" x 3 3/8" - No conduit

✓ **73**   5/8" x 3 5/8" - 1/2 NPT conduit

74   5/8" x 2 3/4" - No conduit

75   5/8" x 4 5/16" - 1/2" NPT conduit

76   5/8" x 3 3/16" - No conduit

77   3/4" x 5 13/16" - 1/2" NPT conduit

7G   5/8" x 4" - 1/2" NPT conduit

7H   5/8" x 3 1/4" - No conduit

7LG 5/8" x 4 3/4" - NPT conduit

7LR 5/8" x 4 3/4" - NPT conduit

Note: For metric threads add "M" after
first group. Example: 73M-XXXXX-XX
Models 71-72 : 12mm
Models 73-76 : 18mm
Models 7G-7H : 18mm

Nuclear Qualified Proximity Sensors
P7 Nuclear IEEE Mild Duty
N7 Nuclear IEEE Harsh Duty
Q7 Nuclear IEEE Containment
N7 Nuclear CANDU, CANDU6 and Qinshan
(Consult Factory for more information)

Ordering Guide
Fill in each box to create
a complete model number.

Contact Form

✓ **1** Single Pole Double Throw (Form C)

2 Double Pole Double Throw (Form CC)
(Model 7G, 7H only)

Sensing Range

✓ **3** Standard sensing - .100" end sensing
(Models 73-77, 7G-7H, 7L;
Enclosure 2 or 6 only)

4 .072" end sensing (Models 73-77, 7G-7H,
7L; Enclosure 3 or 7 only) (Approvals 2, 7
or 8 only) (Approval 3 if enclosure is 7)

5 .060" end sensing (Models 73-77 only;
Enclosure 4; Approvals 2, 7, or 8 only)

6 .040" end sensing (Models 71 & 72 only)

Outlet Position

✓ **5** Bottom of enclosure

Model	Contact Form	Sensing Range	Outlet Position

Ordering Examples
11-12110-00
81-20524-A2

✓ Denotes *FastTrack Delivery* option most likely to be available for immediate shipment.

GO SWITCH

✓ **FastTrack Delivery**

73-13523-A2
UL Cl I Div 1 Explosion Proof
3 ft. Lead Wires

73-13524-A2
CSA Cl I Div 1 Explosion Proof
3 ft. Lead Wires

73-13526-A2
Cl I Div 2 Non-Incendive
3 ft. Lead Wires

73-13528-A2
General Purpose
3 ft. Lead Wires

74-13528-B2
General Purpose
3 ft. Cable

74-13528-DBA
General Purpose
Micro connector

7G-13524-A2
Cl I Div 1 Explosion Proof
Hermetic Seal, 3 ft. leads

7G-23528-A2
General Purpose
DPDT, 3 ft. Lead Wires

7G-23526-A2
Cl I Div 2 Non-Incendive
DPDT, 3 ft. Lead Wires

7G-23523-A2
Cl I Div 1 Explosion Proof
DPDT, 3 ft. Lead Wires

7LR-13568-A2
General Purpose
Red LEDs, 3 ft. leads

7LG-13568-A2
General Purpose
Green LEDs, 3 ft. leads

Enclosure Materials

✓ **2** 303 stainless steel
(rated 2,000 psi) (Sensing 3 or 6 only)

3 HiPressure - 303 stainless steel
(rated 5,000psi) (Models 73-77; Sensing 4;
Approval 2, 7, or 8 only)

4 HiPressure - 303 stainless steel
(rated 10,000 psi) (Models 73-77;
Sensing 5; Approval 2, 7, 8 only)

6 316 stainless steel (rated 2,000 psi)

7 HiPressure - 303 stainless steel
(rated 3,500psi) (Models 73, 75, 77;
Sensing 4; Approval 3 only)

Approvals

2 HiTemp to 400ºF (Wiring F only)

3 UL Cl I Div 1 & 2 Grps A-D; Cl II Div 1 & 2,
Grps E-G (Models 71, 73, 75, 77 or 7G only) (Wiring A, B, or F only)
(Lead seal required)

✓ **4** CSA Cl I Div 1; Grps A-D; Cl II Div 1, Grps E-G; Cl III
(Models 71, 73, 75, 77 or 7G only) (Wiring A, B, or F only)
(Lead seal required)

6 CSA Cl I, Div 2; Grps A-D; Cl II, Div 2; Grps E-G; Cl III
(Models 71, 73, 75, 77, 7G only) (Wiring A, B, or F only)
(Lead seal required)

7 CSA certified General Purpose

8 UL listed General Purpose

T ATEX Zone 1 EEx d IIC T6 (-20°C to +50°C), II 2G
(Models 73 & 7G only) (Contact form 1 only)
(-20°C to 50°C with Wiring A & B) (-40°C to 150°C with Wiring H)

E c-UL-us listed Cl I, Div 2: Grps A-D; Cl II Div 2; Grps E-G; Cl III
(Models 7LG and 7LR only) (Wiring must be A or B)
(Lead seal required)

Wiring Options

Lead Wires - 18 Gauge (7G - 7H = 20 gauge)
✓ **A2** 36"
A3 72"
A4 144"
A_ _ _ Greater than 144" - specify length in 5ft. increments

Cable - 18 Gauge
B2 36"
B3 72"
B4 144"
B_ _ _ Greater than 144" - specify length in 5ft. increments

Water Resistant Squeeze Connector (Models 72, 74, 76 only)
(Approval 7 or 8 only)
C2 36"
C3 72"
C4 144"
C_ _ _ Greater than 144" - specify length in 5ft. increments

Mini Change Connector (Models 71, 73, 75, 77, 7G only)
(Approval 7 or 8 only; 3 pin is 8 only)
DCA 3 pin
DCD 4 pin
DCG 5 pin
DCH 7 pin (7G only)

Micro Change Connector (Models 72, 74, 76)
(Approval 7 or 8 only; 3 pin is 8 only)
DBA 3 pin
DBD 4 pin

SubSea Connector
(Models 73, 75, 77) (Approval 7 or 8 only; 3 pin is 8 only)
3DD 3 pin
4DD 4 pin
8DD 8 pin (7G only)
3DE 3 pin 90º
4DE 4 pin 90º

Hi-Temp™ Leads (Teflon insulated) 18 Gauge
(7G - 7H = 20 gauge)
F2 36"
F3 72"
F4 144"
F_ _ _ Greater than 144" - specify length in 5ft. Increments

Hi-Temp™ Leads (Peek insulated) (Models 71-77)
H2 36"
H3 72"
H4 144"
H_ _ _ Greater than 144" - specify length in 5ft. Increments

Enclosure Materials

Approvals

Wiring Options