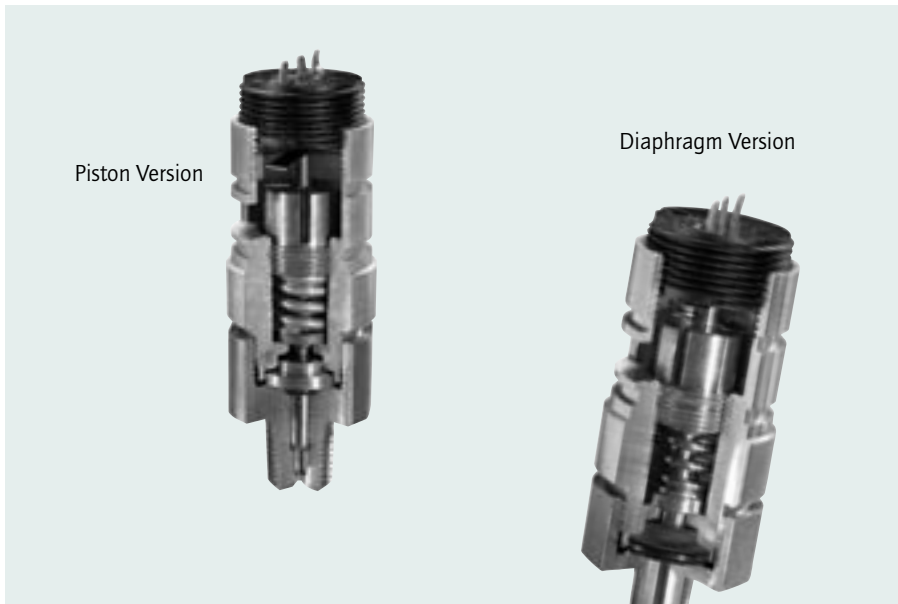




OVERVIEW

With seven electric termination varieties and a choice of sensors and pressure connections, the Spectra 10 is designed to meet the requirements for a variety of OEM and industrial applications. Just 1 1/4 inches in diameter and as small as 3 inches high, this compact, cylindrical switch mounts wherever space is at a premium. Ideal for applications with high settings and surges, the Spectra 10 is a rugged, reliable and cost-effective switch.



TECHNOLOGY

The Spectra 10's technology has been proven in the toughest applications, such as mobile hydraulic units, compactors, balers and lube oil systems. The Spectra 10 uses either a diaphragm or a piston sensor (depending on pressure requirements) to sense changes in pressure, which are transmitted through a plunger mechanism to the snap-action electrical switch. Changes to set point are accomplished easily while the unit is under pressure through the slotted adjusting screw under a tamper-resistant cover. This adjustment "pre-loads" the actuation mechanism, which results in excellent vibration-resistance. The Spectra 10 was designed to allow for easy modification to the process connection and to the electrical terminations, resulting in fast delivery of products specifically meeting the user's requirements.

FEATURES

- UL & CSA recognized, CE compliant to low voltage directive and pressure equipment directive
- Proof pressures up to 12,000 psi (827 bar)
- Height as small as 3"
- Choice of 7 electrical terminations
- Optional leadwire/cable lengths
- NPT or SAE threaded pressure connections

Along with standard capabilities, modified designs or options are available to help you meet specific application requirements. The flexibility of the design allows for customized pressure connections, electrical terminations, ranges and other modifications. Consult your UE Representative for other product capabilities, order restrictions and special conditions.

SPECIFICATIONS

STORAGE TEMPERATURE	-40 to 180°F (-40 to 82°C)
AMBIENT TEMPERATURE LIMITS	0 to 160°F (-17 to 71°C) with Buna-N construction; 0 to 180°F (-17 to 82°C) with Viton® construction; set point shifts less than 1% of range for a 50°F (28°C) ambient temperature change. Unit will operate down to -40°F (-40°C) but with reduced repeatability
MAX. MEDIA TEMPERATURE	200°F (93°C) with Buna-N sensor; 250°F (121°C) with Viton® sensor
SHOCK	Set point repeats after 50 G, 10 millisecond duration
VIBRATION	Set point repeats after 10 G, 5-500 CPS
ENCLOSURE CLASSIFICATION	Types C, D, E, F & G: Complies with enclosure type 4 requirements Types A & B: Not applicable
SET POINT REPEATABILITY	Models 10-12: ± 1% of span; Models 13-16: ± 1.5% of span
SWITCH OUTPUT	One SPDT
ELECTRICAL RATING	Rated to 5 A resistive and 5 A inductive (75% power factor), at 125 VAC & 250 VAC, 1/4 HP; 5 A resistive and 3 A inductive at 30 VDC; 0.5 A resistive and 0.25 A inductive at 125 VDC; gold clad silver contact for loads down to 5 mA at 6 VDC, 2 mA at 12 VDC and 1 mA at 24 VDC
ENCLOSURE	Aluminum with irridite finish
WEIGHT	Type A: 5 oz.; Type B: 6 oz.; Type C: 6.5 oz.; Type D: 6 oz.; Type E: 12 oz.; Type F: 6.5 oz.; Type G: 12 oz.
ELECTRICAL CONNECTION	7 electrical terminations; Refer to "How to Order"
PRESSURE CONNECTION	Models 10-12: 1/8" NPT (male); Models 13-16: 1/4" NPT (male); optional SAE threads and other connections (see options list)
MOUNTING	NPT (male) pressure connection. Surface mounting bracket kit available for field installation



10 Series

10 Series

APPROVALS



UL 508 recognized
CSA C22.2 No. 14-M95 recognized
File # E42272



EEx ia IIC T6 (intrinsically safe), EN 50 014, EN 50 020, Demko# 01E.0113749
(must select option code M405)



CE Compliance with Low Voltage Directive (LVD)
CE Compliance to Pressure Equipment Directive (PED/97/23/EC)

MODEL CHART

Range Code	Adjustable Set Point Range		Deadband		Over Range Pressure*		Proof Pressure**	
	psi	bar	psi	bar	psi	bar	psi	bar
Low end of range on fall High end of range on rise								
Narrower deadbands may be expected at bottom of range								
Buna-N diaphragm and O-ring and 1/8" NPT (male) brass pressure connection								
10	4 to 50	0,3 to 3,4	1 to 6	0,07 to 0,41	1000	68,9	3000	206,8
11	10 to 150	0,7 to 10,3	2 to 10	0,14 to 0,69	1500	103,4	3000	206,8
12	30 to 600	2,1 to 41,4	8 to 60	0,55 to 4,14	2500	172,4	3000	206,8
Stainless steel piston, Buna-N O-ring and 1/4" NPT (male) brass pressure connection								
13	100 to 1500	6,9 to 103,4	20 to 220	1,4 to 15,2	8000	551,6	10,000	690
14	180 to 3000	12,4 to 206,8	50 to 400	3,45 to 27,5	8000	551,6	10,000	690
15	400 to 4700	27,6 to 324,1	100 to 600	7,0 to 41,5	8000	551,6	10,000	690
16	4000 to 7500	275,8 to 517,1	400 to 950	27,6 to 65,5	10,000	690	12,000	827

* **Over Range Pressure:** The maximum pressure that may be applied continuously without causing damage and maintaining set point repeatability.

** **Proof Pressure:** The maximum pressure to which a pressure sensor may be occasionally subjected, which causes no permanent damage. The unit may require calibration (e.g., start-up, testing).

HOW TO ORDER

Build a part number by selecting appropriate code for each feature category. Example: 10-B11 *M201

10	B	11	M201
Series Designation	Electrical Termination Type	Range	Misc. Options

ORDERING CODE

Series Designation

10

Electrical Termination Type

- A
- B
- C
- D
- E
- F
- G

Range

- 10
- 11
- 12
- 13
- 14
- 15
- 16

Miscellaneous Options

- M201
- M277
- M278
- M405
- M407
- M430
- M444
- M446
- M511
- M512
- M540
- M541
- M550
- M925
- 62169-26
- L040
- L060
- L080
- L100

DESCRIPTION

Designation for Spectra 10 product line

- 0.11" push-on terminals
- 0.25" push-on terminals
- NEMA 4; 1/2" NPT (male) conduit connection; 20" leads
- NEMA 4; 20" leads
- NEMA 4; 1/2" NPT (female) conduit connection; 5' cable
- NEMA 4; 4 terminal DIN connector
- NEMA 4; 5' cable

See model chart on page 4

- Factory set one switch; specify increasing or decreasing pressure and set point
- Range indicated on nameplate in Kpa or MPa
- Range indicated on nameplate in kg/cm2
- Intrinsic safety compliance per EN50014, EN50020, EEx ia II T6
- CE compliance to Pressure Equipment Directive (Category IV)
- Cover lock
- Paper ID Tag
- Stainless Steel Tag
- 1/4" NPT (male) 316 stainless steel pressure connection
- 1/4" NPT (male) brass pressure connection. NOT AVAILABLE ON MODELS 13, 14, 15, OR 16
- Viton® construction. Deadbands and low end of range may increase slightly. Consult factory. Wetted parts include Viton® diaphragm and/or O-ring plus standard pressure connection material
- Ethylene propylene (EPDM) construction. Deadbands may increase slightly (consult factory). Wetted parts include EPDM diaphragm and/or O-ring plus standard pressure connection material
- Oxygen service cleaning; Buna-N diaphragm and/or O-ring changes to Viton®
- 7/16-20 UNF-2A, SAE brass pressure connection, male
- Surface mounting bracket kit
- 4' leadwire/cable. NOT AVAILABLE ON TYPES A, B, F
- 6' leadwire/cable. NOT AVAILABLE ON TYPES A, B, F
- 8' leadwire/cable. NOT AVAILABLE ON TYPES A, B, F
- 10' leadwire/cable. NOT AVAILABLE ON TYPES A, B, F

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