

## RSQ-PRESSURE SWITCH

METABAR RSQ2XX SERIES



### FEATURES

- Robust In Any Severe Application
- Customized Body Housing
- (SS, Brass)
- Selectable Contact
- (gold Contact Or Silver Contact)
- Screw / Push-on Terminal Contact Selectable
- High Quality and Cost Effective
- Adjustable Pressure Range Setting

### APPLICATION

- Tire Manufacturing
- Pressure Control for Piping System
- Hydraulic Detection for Fire Fighting System
- Hydraulic Industry
- Lubrication System
- Sprinkler System
- Air Compressor
- Automobile Braking System

Dimension Details for RSQ24X Series-  
Extension Socket type - 11

Instructions for Order for RSQ24X  
Series-Extension Socket type -  
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## RLT Instrumentation (Unit of RLT Group)

### INTRODUCTION

Pressure switches are devices that are configured to sense a change in pressure and respond in a specified manner. The pressure switch is utilized in many different environments, including manufacturing machinery and facilities, utility plants, and public buildings. In some designs, the pressure switch monitors and automatically responds to conditions, while some other types of the pressures switch require manual intervention.

### MEASURING PRINCIPLE

A pressure switch makes electrical contact when a certain set pressure has been reached on its input. This is used to

provide on/off switching from a pneumatic or hydraulic source. The switch may be designed to make contact either on pressure rise or on pressure fall.

**Open switch:** The contact is a normally open switch which remains opened until the pressure rises above the set point. Then the sensing element makes the contact snaps to close position. The contacts open again when the pressure falls below the set point.

**Closed switch:** The contact is a normally closed switch which remains closed until the pressure rises above the set point. Then the contact snaps to open position and remains open until the pressure drops below the set point again.

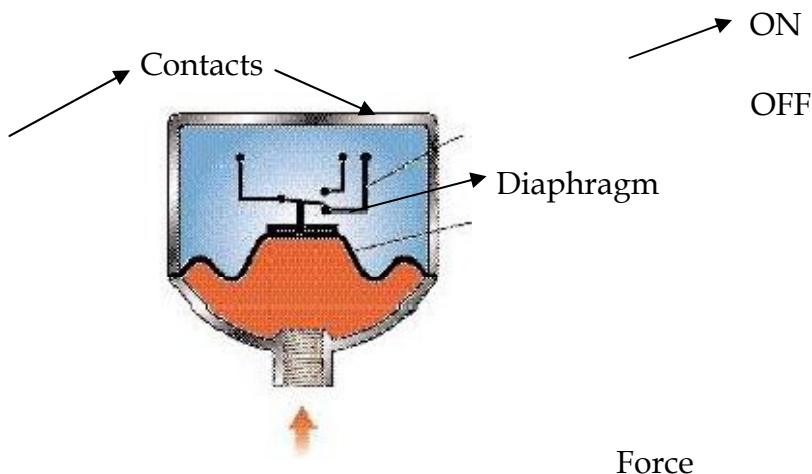





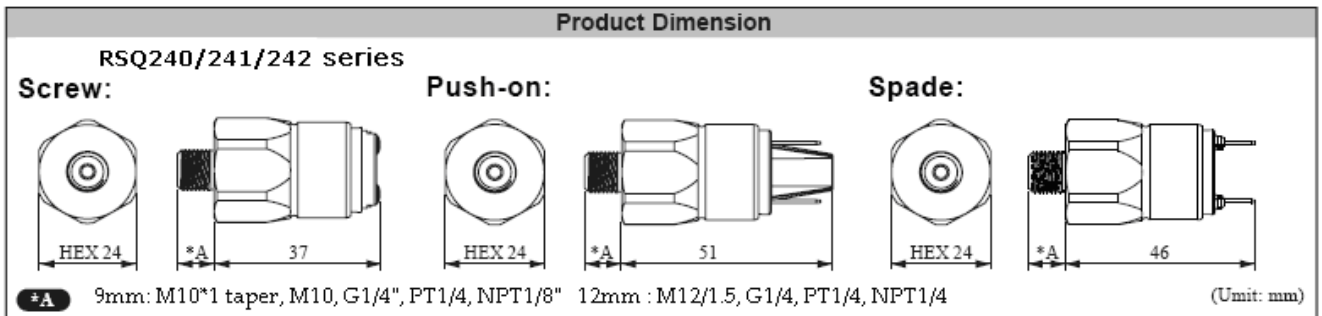
Figure1.1 for Measuring Principle for Pressure Switch

TECHNICAL SPECIFICATION FOR RSQ24X SERIES – SPST TYPE			
DESCRIPTION	 CE (need to add anti-dust cover SQA-1130).	 CE (need to add anti-dust cover SQA-1130).	 CE (need to add anti-dust cover SQA-1130).
Model	RSQ240	RSQ241	RSQ242
Hex. Length	24mm	24mm	24mm
Body Material	Zinc-Plated Steel	SS316	Brass
Wiring	Screw   Push-on   Spade Terminal		
Contact Rating (Max.)	4A/42VDC, 4A/220VAC (UL508)		
Response Frequency	2Hz		
Max. Voltage Peak	1.5 KV (IEC60947-2)		
Electric Insulation	100MΩ (IEC60092-54 section3)		
Operation Temperature	-10°C - 100°C		
Membrane Materials	NBR (Standard) -30 - 100°C Viton -5 - 120°C EPDM -30 - 120°C		
Pressure Range	0.2 - 100 bar		
Pressure Acting Variation	±5% full set point range @20°C		
Piping Selection	M10*1 (TAP 1°) M10*1, M12*1.5 PT1/8", PT 1/4" G1/8", G 1/4" NPT 1/8", NPT 1/4"		
Contact Model	NO, NC		
Protection	IP67 (IEC 60529)		

## RLT Instrumentation (Unit of RLT Group)

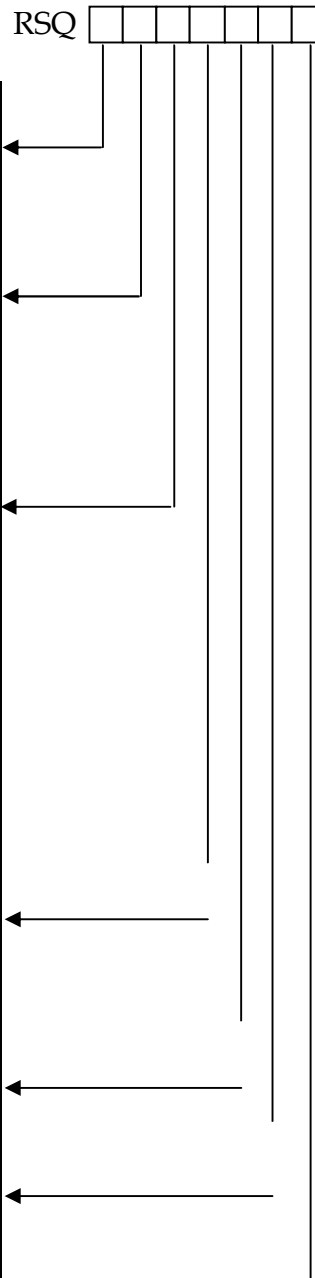
Mechanical Life	1.5X10 <sup>6</sup> cycles (in 50 bar)
Screw Torque	<0.35 Nm
Shock Resistance	ISO / IEC 17025, Half Sine Wave, Acceleration : 30 G@14ms, ±X, ±Y, ±Z axis
Vibration Resistance	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16mm Sweeping Rate : 1 Oct/min, Test Direction : X,Y,Z axis Test Time : 1 hr for each
Various Ranges of Pressure Available in Field Adjustable Pressure Switch (with Various Process Connection)	0.2 ~1 bar - ±0.1% 1 ~ 19 bar - ±5% 20 ~ 50 bar - ±5% 51 ~ 100 bar - ±5%

### DIMENSION DETAILS





ORDERING INFORMATION

Code	Features
<b>A</b>	<b>Model Number</b>
0	240
1	241
2	242
<b>B</b>	<b>Pressure Range</b>
A	0.2 ~1 bar
B	1 ~ 19 bar
C	20 ~ 50 bar
D	51 ~ 100 bar
<b>C</b>	<b>Process Connection</b>
0	M10*1 (TAP 1°)
1	M10*1
2	M12*1.5
3	PT1/8"
4	PT 1/4"
5	G1/8"
6	G 1/4"
7	NPT 1/8"
8	NPT 1/4"
<b>D</b>	<b>Body Material</b>
Z	Zinc-Plated Steel
S	SS316
B	Brass
<b>E</b>	<b>Contact Type</b>
O	NO
C	NC
<b>F</b>	<b>Diaphragm Material</b>
N	NBR
E	EPDM
V	VITON
<b>G</b>	<b>Wiring</b>
S	Screw
P	Push-on
T	Spade Terminal

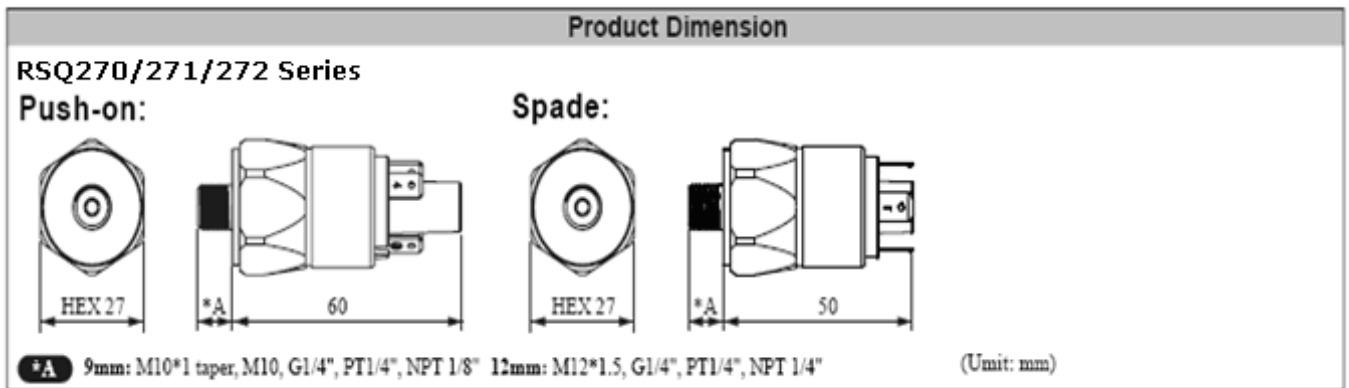


TECHNICAL SPECIFICATION FOR RSQ27X SERIES – SPDT/DIN TYPE

Description			
Model	RSQ270	RSQ271	RSQ272
Type	SPDT / DIN	SPDT / DIN	SPDT / DIN
Hex Length	27mm	27mm	27mm
Body Material	Zinc-Plated Steel	SS316	Brass
Wiring	Push-on   Spade Terminal		
Contact Rating(Max.)	4A/42VDC, 4A/220VAC (UL508)		
Response Frequency	2Hz		
Max. Voltage Peak	1.5 KV (IEC60947-2)		
Electric Insulation	100MΩ (IEC60092-54 section3)		
Operation Temperature	-10°C - 100°C		
Membrane Materials	NBR (Standard) -30 - 100°C Viton -5 - 120°C EPDM -30 - 120°C		
Pressure Range	0.3 - 100 bar		
Pressure Acting Variation	±5% full set point range @20°C		
Piping Selection	M10*1 (TAP 1°) M10*1, M12*1.5 PT1/8", PT 1/4" G1/8", G 1/4" NPT 1/8", NPT 1/4"		
Contact Model	SPDT		
Protection	IP65 (IEC 60529)		
Mechanical Life	1.5X10 <sup>6</sup> cycles (in 50 bar)		
Screw Torque	<0.35 Nm		
Shock Resistance	ISO / IEC 17025, Half Sine Wave, Acceleration : 30 G@14ms, ±X, ±Y, ±Z axis		

<p>Various Ranges of Pressure Available in Field Adjustable Pressure Switch with (Various Process Connection)</p>	<p>0.3~0.9bar - <math>\pm 0.1\%</math>          1 ~ 19 bar - <math>\pm 5\%</math>          20 ~ 49 bar - <math>\pm 5\%</math>          50 ~ 100 bar - <math>\pm 5\%</math></p>
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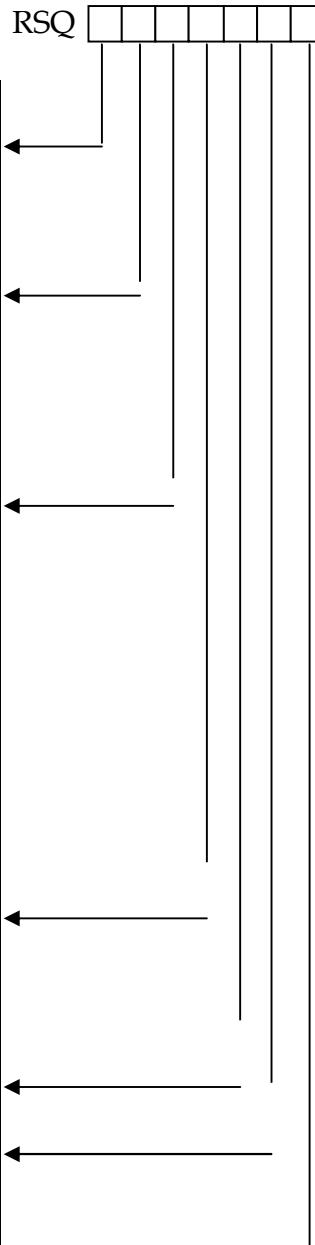
### Dimension Details





## Ordering Information

Code	Features
<b>A</b>	<b>Model Number</b>
0	270
1	271
2	272
<b>B</b>	<b>Pressure Range</b>
A	0.3 ~0.9 bar
B	1 ~ 19 bar
C	20 ~ 49 bar
D	50 ~ 100 bar
<b>C</b>	<b>Process Connection</b>
0	M10*1 (TAP 1°)
1	M10*1
2	M12*1.5
3	PT1/8"
4	PT 1/4"
5	G1/8"
6	G 1/4"
7	NPT 1/8"
8	NPT 1/4"
<b>D</b>	<b>Body Material</b>
Z	Zinc-Plated Steel
S	SS316
B	Brass
<b>E</b>	<b>Contact Type</b>
S	SPDT
<b>F</b>	<b>Diaphragm Material</b>
N	NBR
E	EPDM



RLT Instrumentation  
(Unit of RLT Group)

V	VITON
G	Wiring
P	Push-on
T	Spade Terminal



Technical Specification for RSQ24X Series – Extension Socket Type

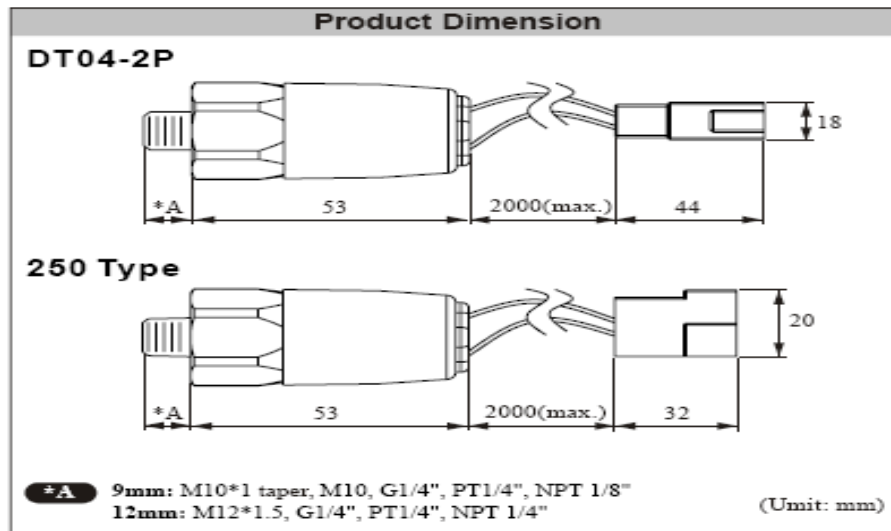


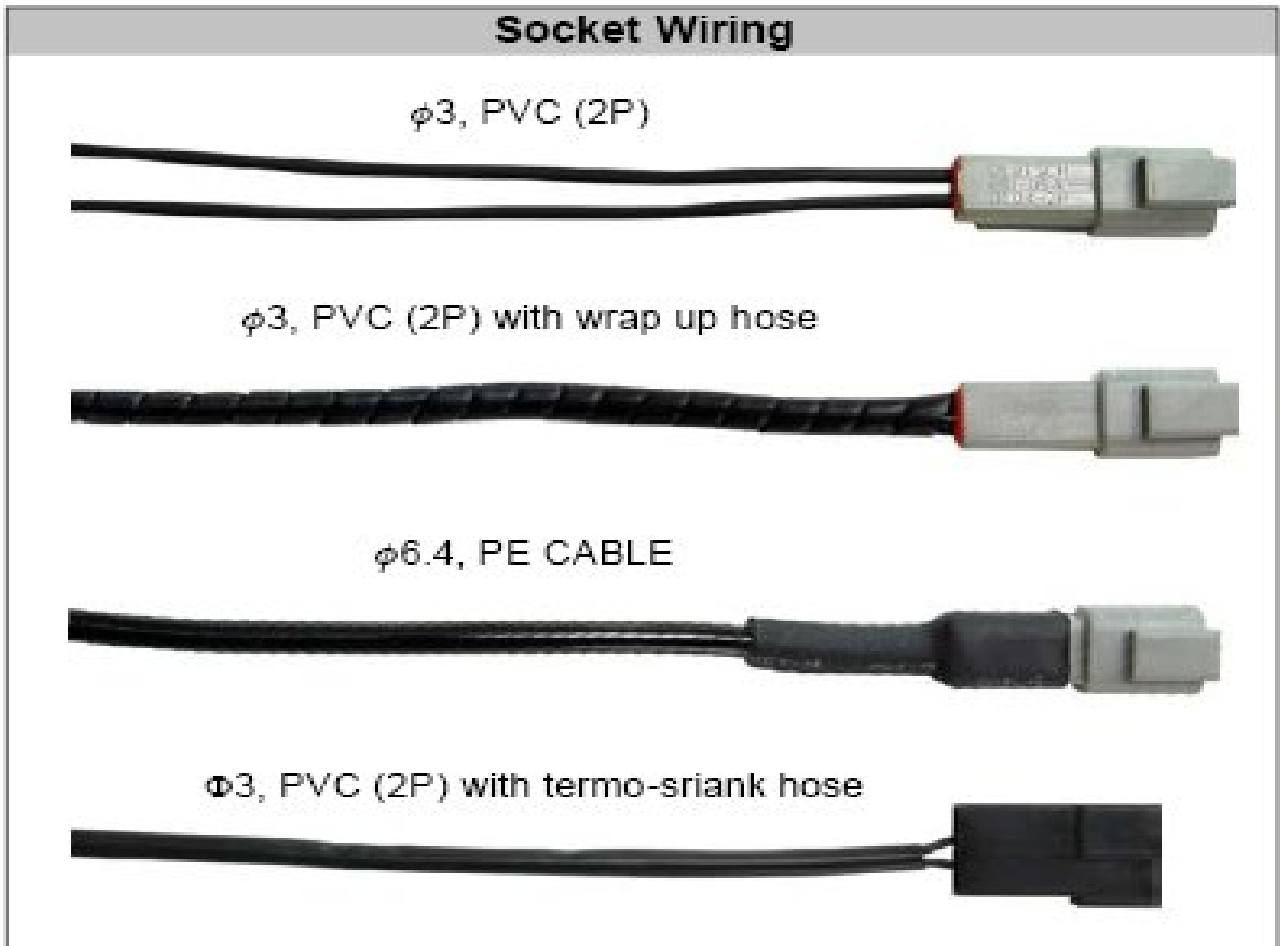
Model	RSQ244	RSQ245	RSQ246
Hex. Length	24mm	24mm	24mm
Body Material	Zinc-Plated Steel	SS316	Brass
Wiring	DT04-2P, 250 Type		
Contact Rating (Max.)	2A/42VDC, 4A/220VAC (UL508)		
Response Frequency	2Hz		
Max. Voltage Peak	1.5 KV (IEC60947-2)		
Electric Insulation	100MΩ (IEC60092-54 section3)		
Operation Temperature	-10°C - 100°C		
Membrane Materials	NBR (Standard) -30 - 100°C Viton -5 - 120°C EPDM -30 - 120°C		
Pressure Range	0.2 - 100 bar		
Pressure Acting Variation	±5% full set point range @20°C		
Piping Selection	M10*1 (TAP 1°) M10*1, M12*1.5 PT1/8", PT 1/4" G1/8", G 1/4" NPT 1/8", NPT 1/4"		
Contact Model	NO, NC		
Protection	IP67 (IEC 60529)		
Mechanical Life	1.5X10 <sup>6</sup> cycles (in 50 bar)		
Shock Resistance	±X, ±Y, ±Z Axis		



Vibration Resistance	<p>ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16mm Sweeping Rate : 1 Oct/ min, Test Direction : X,Y,Z axis Test Time : 1 hr for each</p>
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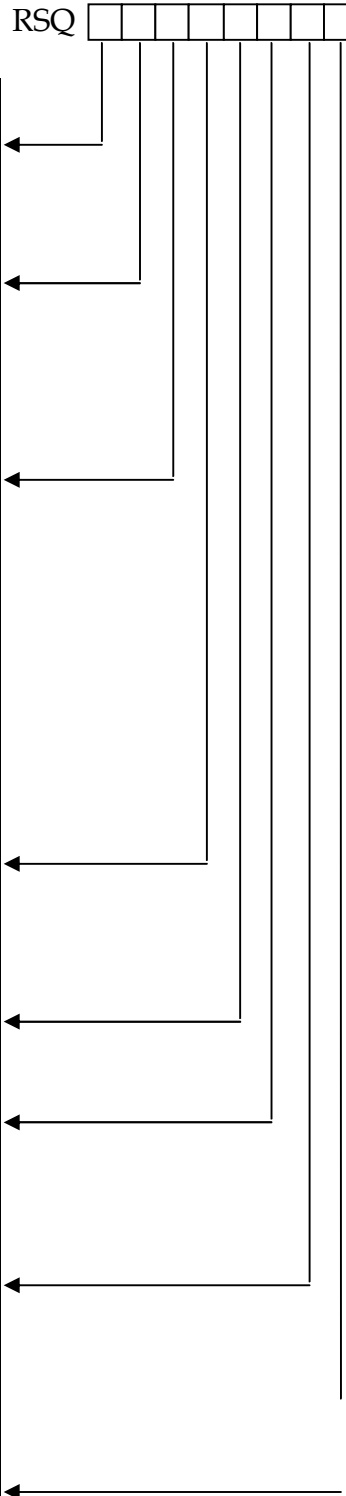
Dimension Details





**Ordering Information**

Code	Features
A	Model Number
0	244
1	245
2	246
B	Pressure Range
A	0.2 bar
B	1.1 bar
C	5 bar
D	50 bar
C	Process Connection
0	M10*1 (TAP 1°)
1	M10*1
2	M12*1.5
3	PT1/8"
4	PT 1/4"
5	G1/8"
6	G 1/4"
7	NPT 1/8"
8	NPT 1/4"
D	Body Material
Z	Zinc-Plated Steel
S	SS316
B	Brass
E	Contact Type
O	NO
C	NC
F	Diaphragm Material
N	NBR
E	EPDM
V	VITON
G	Socket Type
D	DT04-2P
A	250 Type
H	Socket Wiring



**RLT Instrumentation  
(Unit of RLT Group)**

A	φ3, PVC (2P)
B	φ3, PVC (2P) with wrap up hose
C	φ6.4, PE CABLE
	φ3, PVC (2P) with thermo-sriank hose

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