



Klixon | CO₂ SYSTEM PRESSURE SWITCHES

PS80-2X SERIES, FOR USE IN R744/CO₂ OPERATED SYSTEMS

LEADING THE WORLD IN SWITCH DESIGN

The PS80-2X is an automatic reset pressure switch designed to meet the unique challenges of R744/CO₂ based air conditioning and refrigeration equipment. These green systems require robust switches capable of withstanding the increased pressures and temperatures generated by these units. Sensata has redesigned the flagship PS80 to meet the special requirements of these transcritical R744 systems.

Sensata Technologies has been a leading global supplier of pressure sensors and switches for over 50 years.

Features & Benefits

- Hermetically sealed
- Environmentally sealed leads
- Reliable over a broad pressure & temperature range
- Factory calibrated settings
- Single pole, single throw
- Normally open/normally closed
- Proven reliability

Applications

- CO₂ Air Conditioning
- CO₂ Refrigeration
- CO₂ Heat Pump
- High Pressure Safety Cut Out
- Low Pressure Safety Cut Out

Technical Specifications

Maximum Operating Pressure

2300 psig
160 bar
16.0 MPa

Maximum Calibration Pressure

2275 psig
157 bar
15.7 MPa

Proof Pressure

3100 psig
215 bar
21.5 MPa

Burst Pressure

6100 psig
420 bar
42.0 MPa

Electrical Ratings

120/240 Vac - 6.0 FLA 36 LRA
120/277 Vac -375 VA Pilot Duty
24Vac - 125 VA Pilot Duty
Gold contacts available

Life at Rated Current

100,000 cycles

Dielectric Strength

750 Vrms Open Contacts
1500 Vac for 1 minute

Lead Wire Material/Electrical Connection

#18 AWG 600 V 125°C 1/32" XLP UL 3173
#18 AWG 600 V 125°C 1/16" XLP UL 3290
Quick Connects

Ambient Temperature (UL Rating)

-20°F to 176°F (-29°C to 80°C)

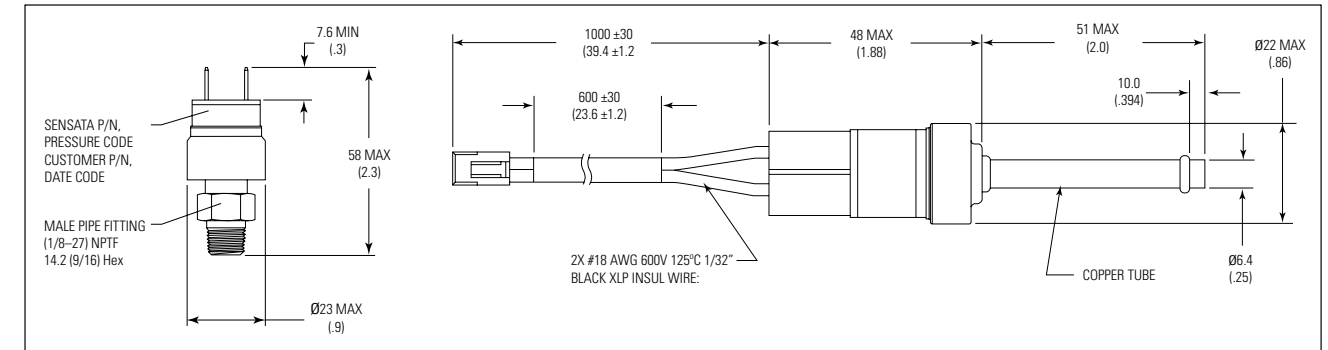
Fluid Temperature (UL Rating)

-65°F to 275°F (-54°C to 135°C)

Agency Recognitions

UL File SA995 Guide SDFY2
UL (Canada) File SA995 Guide SDFY8
PED EN 12263 Module B&D
ENEC, EN60730 EN60730-1, EN60730-2-6
RoHS Compliant

Typical Physical Characteristics



PS80-20 Series Part Numbering System

Part Numbering Scheme	Switch Logic/Termination Style	Contact Type
PS80-21-XXXX	Normally closed switch, Wire leads	Silver contacts
PS80-22-XXXX	Normally open switch, Wire leads	Silver contacts
PS80-23-XXXX	Normally closed switch, Quick connect	Silver contacts
PS80-24-XXXX	Normally open switch, Quick connect	Silver contacts
PS80-25-XXXX	Normally closed switch, Wire leads	Gold contacts
PS80-26-XXXX	Normally open switch, Wire leads	Gold contacts
PS80-27-XXXX	Normally closed switch, Quick connect	Gold contacts
PS80-28-XXXX	Normally open switch, Quick connect	Gold contacts

Key Parameters for Sample Inquiry

Company Name and Address _____

Contact _____

Phone _____ Fax _____ Email _____

Description of Application _____

Exact Function of Switch in System _____

Current _____ Voltage _____ Life Cycle Requirement _____

Cut In Pressure _____ Tolerance _____ Cut Out Pressure _____ Tolerance _____

Pressure Port Fitting _____ Wire Gauge _____ Wire Length _____

Wire Lead termination (e.g., 1/2 inch strip, 1/4 inch female Q.C., etc.) _____