

PS80-2X SERIES | CO₂ SYSTEM PRESSURE SWITCHES

FOR USE IN R744/CO₂ OPERATED SYSTEMS

Introduction

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 & switches for over 50 years.



Features and 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

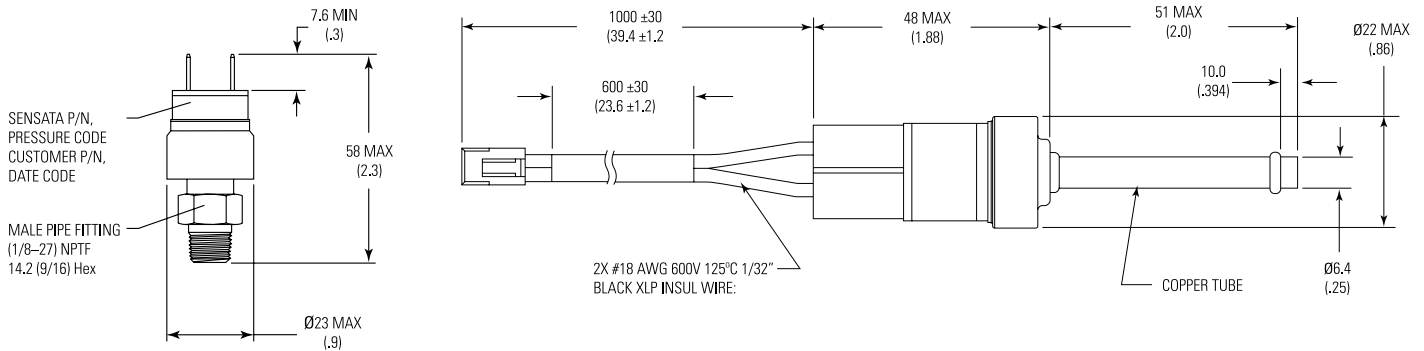
TECHNICAL SPECIFICATIONS

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)

DIMENSIONS

All dimensions are in millimeters [Inches].



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

AGENCY APPROVALS & CERTIFICATIONS



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



WARNINGS



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.