



Pressure Switches

Reliable pressure control by means of on / off electrical switch

KLIXON
WORLD CLASS
PERFORMANCE

The reliable and durable construction of Sensata's pressure switches uses the Klixon® snap-acting disc, which opens or closes a circuit by responding to a change in pressure.

Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Features and benefits

- Normally open, normally closed contact logic
- Compact and direct mount
- Custom engineered solutions
- Long cycle life
- High volume, wide portfolio, competitive price

Typical applications

- Commercial and residential air conditioning systems
- Commercial refrigeration
- Compressor and pump control
- Engine, hydraulic and air conditioning pressure control for Off-road - and speciality vehicles
- Process control and automation

Products



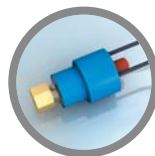
PS80 Series (Automatic Reset Pressure Switch): 100,000 cycles



20PS, 39PS, 40PS and 41PS Series (Automatic Reset Pressure Switch): Low current; 100,000 to 250,000 cycles



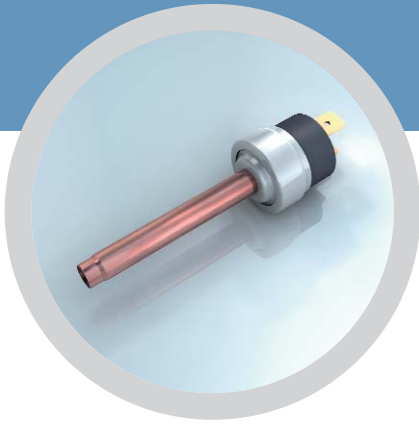
25PS, 42PS, 44PS and 45PS Series (Automatic Reset Pressure Switch): High current; 100,000 to 250,000 cycles



29PS Series (Manual Reset Pressure Switch): 10,000 cycles



36PS Series (Automatic Reset Pressure Switch): Low pressure; 1 million cycles max



PS80 Series Automatic Reset Pressure Switch

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The PS80 Series is designed to meet a broad spectrum of applications. It is manufactured globally at our ISO 9001 certified manufacturing facilities to ensure the quality you expect from Sensata Technologies.

Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Features and benefits

- Single-pole, single-throw switch (SPST) normally open (NO) or closed (NC)
- Factory calibrated set points
- Klixon® stainless steel disc
- Environmentally sealed
- Proven reliability
- RoHS compliant

Typical applications

- Air conditioning
- Compressors and pumps
- Process controls and automation
- Refrigeration

Technical specifications

Operating pressure

0 to 52 bar rel (0 to 750 psig)
(please contact Sensata for high pressure products for CO₂ applications)

Physical

Proof pressure
 • <7 bar rel (100 psig).....17 bar rel (250 psig)
 • <35 bar rel (500 psig)....42 bar rel (600 psig)
 • >35 bar rel (500 psig)....56 bar rel (800 psig)
 Burst pressure.....≥345 bar rel (5,000 psig)
 Cycle life (Full scale).....≥100,000 cycles
 Pressure connection*
 • Copper tube, screw threads
 Electrical connection
 • Quick Connect 1/4" x 1/32" male tab (IP00)
 • 18 AWG 600 V 125 °C XLP leads (IP67)

Performance

Ambient temperature...-29 °C to 80 °C
 Media temperature.....-54 °C to 135 °C

Electrical

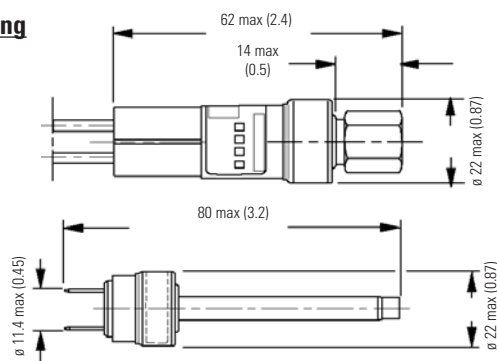
Ratings
 • 120/240 Vac - 6 FLA 36 LRA
 • 120/277 Vac - 375 VA Pilot Duty
 • 24 Vac - 125 VA Pilot Duty
 Dielectric strength
 • 750 V_{rms} Open contacts
 • 1500 V_{rms} Terminals to fitting

Agency recognitions

UL (USA)	File SA995 Guide SDFY2
UL (Canada)	File SA995 Guide SDFY8
PED	Module B/D (TUV) CE0035
EN12263	01-202-931-B-06-0011 (TUV)
EN60730-2-6	2018218-11 (KEMA/ENEC)
	CE05
GB14536.7	CQC 04002010768

* view charts on reverse

Dimensional drawing



Note: Dimensions shown in mm (inches)



20PS, 39PS, 40PS and 41PS Series Automatic Reset Pressure Switch

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The 20PS Series was developed to meet demanding needs of HVAC and industrial applications. The reliable and durable construction allows the product to perform under severe environmental conditions and high vibration levels.

Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Features and benefits

- Single-pole, single-throw (SPST) switch normally open (NO) or closed (NC)
- Factory calibrated set points
- Klixon® stainless steel disc
- Environmentally sealed
- Proven reliability
- RoHS compliant

Typical applications

- Air conditioning and refrigeration
- Compressors and pumps
- Engine, hydraulic and air conditioning pressure control for Off-road - and speciality vehicles
- Process control and automation

Technical specifications

Operating pressure

Vacuum to 52 bar rel (750psig)

Physical

Proof pressure

- <7 bar rel (100 psig).....17 bar rel (250 psig)
- <35 bar rel (500 psig)....42 bar rel (600 psig)
- >35 bar rel (500 psig)....56 bar rel (800 psig)

Burst pressure

- ≥345 bar rel (5,000 psig)

Cycle life (Full scale)*

- ≥100,000 to ≥250,000 cycles

Pressure connection*

- Copper tube, screw threads

Electrical connection

- Quick Connect 1/4" x 1/32" male tab (IP00)
- 18 AWG 600 V 105 °C PVC or 125 °C XLP (IP67) leads (available with various AMP, Packard, Delphi and Deutsch connectors)

Performance

Ambient temperature.....-29 °C to 80 °C

Media temperature.....-54 °C to 135 °C

Electrical

Electrical ratings

- 120 Vac - 5.8 FLA 34.8 LRA
- 240 Vac - 2.9 FLA 15 LRA
- 120/240 Vac - 375 VA Pilot Duty
- 24 Vac - 125 VA Pilot Duty
- 5 to 28 Vdc - 5 mA to 2 A

Dielectric strength

- 750 V_{rms} Open contacts
- 1500 V_{rms} Terminals to fitting

Agency recognitions

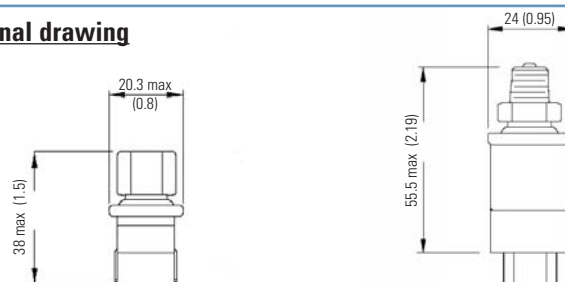
UL (USA) File SA995 Guide SDFY2
 UL (Canada) File SA995 Guide SDFY8
 PED Module B/D (TUV) CE0035
 EN12263 01-202-931-B-06-0010 (TUV)
 EN60730-2-6 2018218-12 (KEMA/ENEC)
 CE05

GB14536.7 CQC 04002010769

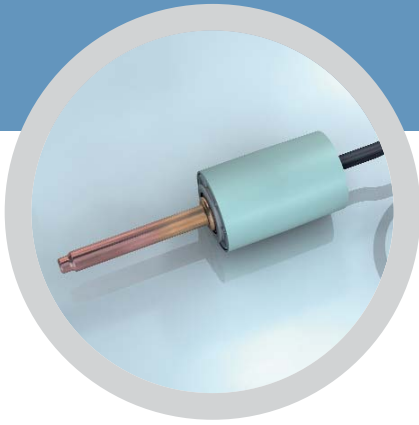
(TUV recognitions only for 20PS and 39PS; CQC only for 20PS)

* view charts on reverse

Dimensional drawing



* Note: Dimensions shown in mm (inches)



25PS, 42PS, 44PS and 45PS Series Automatic Reset Pressure Switch

KLIXON WORLD CLASS PERFORMANCE

The 25PS Series was developed to meet demanding needs of HVAC and industrial applications. The reliable and durable construction allows the product to perform under severe environmental conditions and high vibration levels.

Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Features and benefits

- Single-pole, single-throw (SPST) or single-pole, double-throw (SPDT) switch normally open (NO) or closed (NC)
- Factory calibrated set points
- Klixon® stainless steel disc
- Environmentally sealed or vented
- Proven reliability
- RoHS compliant

Typical applications

- Air conditioning and refrigeration
- Compressors and pumps
- Engine, hydraulic and air conditioning pressure control for Off-road - and speciality vehicles
- Process control and automation

Technical specifications

Operating pressure

Vacuum to 52 bar rel (750 psig)

Physical

Proof pressure

- <7 bar rel (100 psig)...17 bar rel (250 psig)
 - <35 bar rel (500 psig)...42 bar rel (600 psig)
 - >35 bar rel (500 psig)...56 bar rel (800 psig)
- Burst pressure.....>345 bar rel (5,000 psig)

Cycle life (Full scale)*

- 100,000 to 250,000 cycles

Pressure connection

- Copper tube, screw threads

Electrical connection

- Quick Connect 1/4" x 1/32" male tab (IP00)
- 18 AWG 600 V 105 °C PVC or 125 °C XLP (IP67) leads (available with various AMP, Packard, Delphi and Deutsch connectors)

Performance

Ambient temperature.....-29 °C to 66 °C

Media temperature.....-54 °C to 135 °C

Electrical

Electrical ratings

- 5 to 28 Vdc 15 A

Vac	FLA	LRA	Pilot Duty	Switch-type
120	5.8	34.8	278 VA	(SPDT-NO)
120	13	65	480 VA	(SPST-NO)
120	13	60	480 VA	(SPST/SPDT-NC)
240	2.9	17.4	278 VA	(SPDT-NO)
240	10	45	720 VA	(SPDT-NO, SPST/SPDT-NC)
480	4	24		(44/45PS SPST NO/NC)
600	3.2	19.2		(44/45PS SPST NO/NC)

Dielectric strength

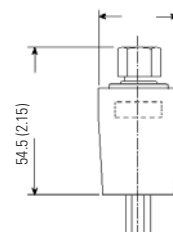
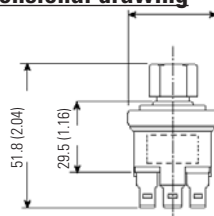
- 750 V_{rms} Open contacts
- 1500 V_{rms} Terminals to fitting (25/42PS)
- 2200 V_{rms} Terminals to fitting (44/45PS)

Agency recognitions

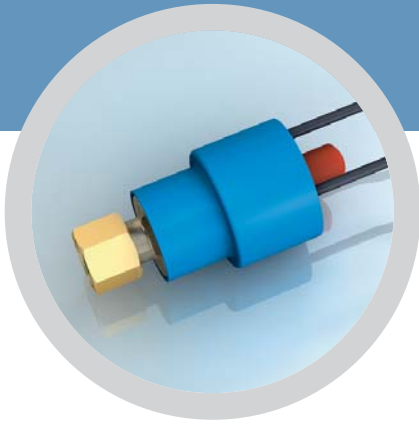
UL (USA)	File SA995 Guide SDFY2
UL (Canada)	File SA995 Guide SDFY8
PED	Module B/D (TUV) CE0035
EN12263	01-202-931-B-06-0009 (25PS) and -0010 (42/44/45PS) (TUV)
EN60730-2-6	2018218-10 (KEMA/ENEC) CE05

* view charts on reverse

Dimensional drawing



* Note: Dimensions shown in mm (inches)



29PS Series Manual Reset Pressure Switch

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The 29PS Series has been designed to meet the manual reset needs of the commercial and industrial sectors. It is a derivative of Sensata's 20PS automatic reset pressure switch, long recognized as an industry standard control device.

Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Features and benefits

- Single-pole, single-throw (SPST) switch normally closed (NC)
- Factory calibrated set points
- Klixon® stainless steel disc
- Environmentally sealed
- Tamper-proof manual reset
- RoHS compliant

Typical applications

- Air conditioning
- Compressors and pumps
- Process controls
- Refrigeration

Technical specifications

Operating pressure

14 to 52 bar rel (200 to 750 psig)

Physical

Proof pressure

- <35 bar rel (500 psig)...42 bar rel (600 psig)
- >35 bar rel (500 psig)...56 bar rel (800 psig)

Burst pressure

- ≥345 bar rel (5,000 psig)

Cycle life (Full scale).....≥10,000 cycles

Pressure connection*

- Copper tube, screw threads

Electrical connection

- Quick Connect 1/4" x 1/32" male tab (IP00)
- 18 AWG 600 V 105 °C PVC or 125 °C XLP (IP67) leads (available with various AMP, Packard, Delphi and Deutsch connectors)

Performance

Ambient temperature.....-29 °C to 66 °C

Media temperature.....-54 °C to 135 °C

Electrical

Electrical ratings

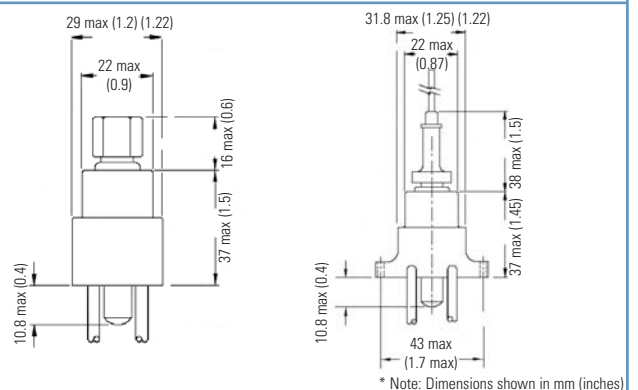
- 120 Vac - 5.8 FLA 34.8 LRA
 - 240 Vac - 2.9 FLA 15 LRA
 - 120 Vac - 375 VA Pilot Duty
- Dielectric strength
- 750 V_{rms} Open contacts
 - 1500 V_{rms} Terminals to fitting

Agency recognitions

UL (USA)	File SA995 Guide SDFY2
UL (Canada)	File SA995 Guide SDFY8
PED	Module B/D (TUV) CE0035
EN12263	01-202-931-B-06-0010 (TUV)
EN60730-2-6	2018218-13 (KEMA/ENEC)
	CE05

* view charts on reverse

Dimensional drawing





36PS Series Automatic Reset Pressure Switch

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PERFORMANCE

The 36PS Series was developed to meet demanding needs of industrial applications. The reliable and durable construction allows the product to perform under severe environmental conditions and high vibration levels.

Sensata Technologies is the world's leading supplier of sensors and controls across a broad range of markets and applications.

Features and benefits

- Single-pole, single-throw (SPST) switch normally open (NO) or closed (NC)
- Factory calibrated set points
- Klixon® stainless steel disc
- Environmentally sealed
- Narrow tolerance and hysteresis
- Proven reliability
- RoHS compliant

Typical applications

- Compressors and pumps
- Engine control for Off-road - and speciality vehicles
- Process control and automation

Technical specifications

Operating pressure

0 to 7 bar rel (100 psig)
(please contact Sensata for higher pressures)

Physical

Proof pressure
 • ≤ 7 bar rel (100psig)..... ≤ 35 bar rel (500psig)
 Burst pressure
 • ≥ 345 bar rel (5000 psig)
 Cycle life (Full scale)
 • ≥ 1 million cycles
 Vibration (50 to 2000 Hz).....20 g
 Pressure connection*.....screw threads
 Electrical connection
 • Quick Connect 1/4" x 1/32" male tab (IP00)
 • 18 AWG 600 V 105 °C PVC or 125 °C XLP (IP67) leads (available with various AMP, Packard, Delphi and Deutsch connectors)

Performance

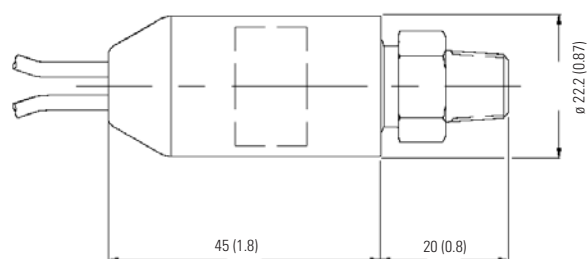
Ambient temperature.....-40 °C to 125 °C
Media temperature.....-60 °C to 135 °C

Electrical

Electrical ratings
 • 9 Vdc - 5 mA
 • 28 Vdc - 2 A
 • 120 Vac - 5.8 FLA 34.8 LRA
 • 240/270 Vac - 2.9 FLA 15 LRA
 Dielectric strength
 • 750 V_{rms} Open contacts
 • 1500 V_{rms} Terminals to fitting

* view charts on reverse

Dimensional drawing



* Note: Dimensions shown in mm (inches)



Product directory

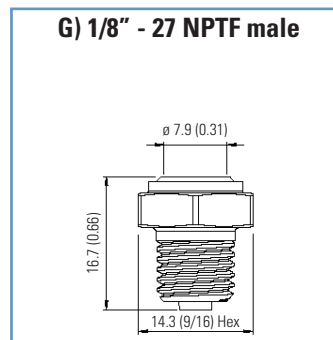
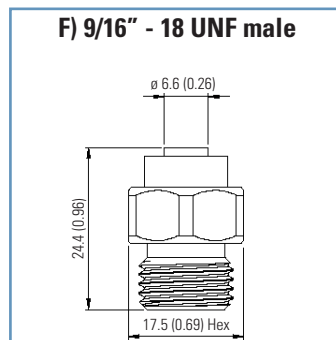
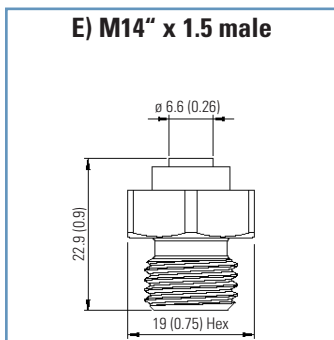
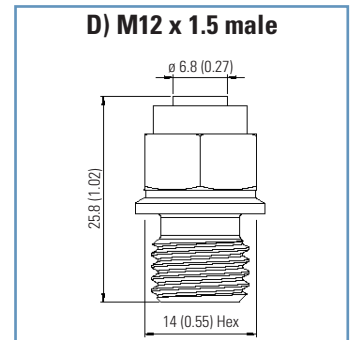
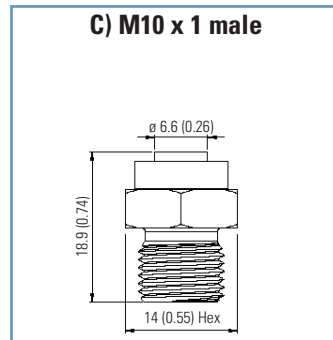
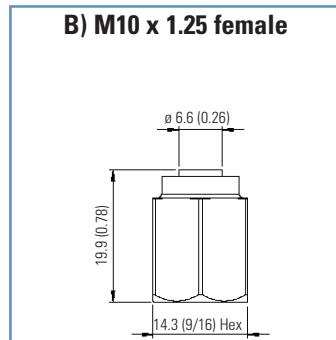
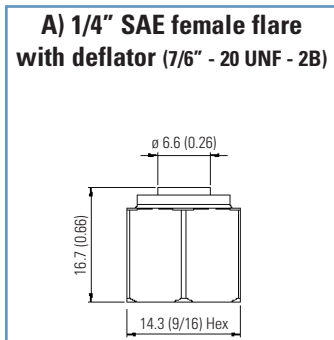
Cycle life at rated current	Application voltage	Electrical current	Series	Switch operation	Switch configuration
10,000	120/240 Vac	Low: 6.2/2.9 A	29PS	Manual Reset	SPST
100,000	5 to 28 Vdc	Low: 5 to 400 mA	20PS	Auto Reset	SPST
	28 Vdc	High: 15 A	25/45PS	Auto Reset	SPST/SPDT
	120/240 Vac	Low: 5.8/2.9 A	20/36PS	Auto Reset	SPST
	120/240 Vac	High: 13/10 A	25/45PS	Auto Reset	SPST/SPDT
	240 Vac	Low: 6 A	PS80	Auto Reset	SPST
250,000	480/600 Vac	High: 4/3.2 A	45PS	Auto Reset	SPST
	5 to 28 Vdc	Low: 5 to 400 mA	40PS	Auto Reset	SPST
	5 to 28 Vdc	High: 400 mA to 2 A	36/39/41PS	Auto Reset	SPST
	28 Vdc	High: 15 A	42/44PS	Auto Reset	SPST/SPDT
	120/240 Vac	Low: 5.8/2.9 A	39/41PS	Auto Reset	SPST
1,000,000	120/240 Vac	High: 13/10 A	42/44PS	Auto Reset	SPST/SPDT
	480/600 Vac	High: 4/3.2 A	44PS	Auto Reset	SPST
1,000,000	5 to 28 Vdc	Low: 5 to 400 mA	36PS	Auto Reset	SPST

Note: All can be sealed and leaded or unsealed with Quick Connect except 29PS (sealed and leaded only).

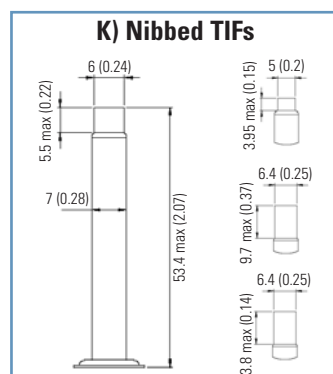
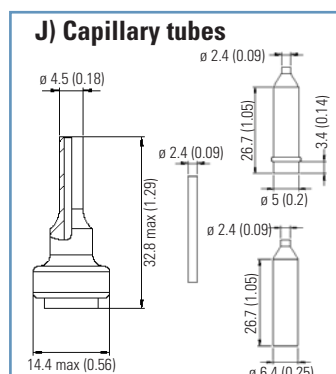
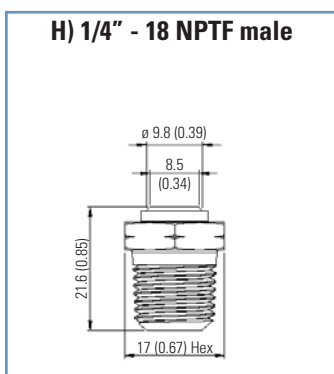
SPST = Single-pole, single-throw; SPDT = Single-pole, double-throw

Pressure connections

(please contact Sensata for other connections)



	PS80	20PS	25PS	29PS	36PS
A	S	S	S	S	S
B	O	S	O	O	S
C	S	S	O	O	-
D	-	S	O	-	S
E	-	O	-	-	S
F	-	-	-	-	S
G	S	S	S	S	S
H	S	S	S	S	S
J	-	S	S	S	-
K	S	S	S	S	-



S = Standard
O = Option

Note: Dimensions shown in mm (inches)



Customer questionnaire Pressure Switch

Contact information

Company _____ Contact name _____
 Street _____ Position _____
 Postcode _____ City _____ Phone _____ Fax _____
 Country _____ Email _____

Project

Name _____ Start of production _____
 Target price _____ Estimated usage _____ Year 1 _____ Year 2 _____ Year 3 _____

Application

Description _____ Medium _____
 Function of the switch _____

Pressure

Switch logic (normally open or normally closed) _____ Reset (automatic or manual) _____
 Actuation pressure - nom. _____ tol. _____ Release pressure - nom. _____ tol. _____
 Nominal system pressure _____ Peak system pressure _____
 Cycle life _____

Mechanical connection

Pressure port fitting (e.g. brazed tube, male or female thread) _____
 Material (e.g. brass, steel, stainless steel) _____

Electrical requirements

Connection (Quick Connect or wire leads) _____ Load (inductive or resistive) _____
 Lead termination (e.g. 1/2" stripped) _____
 Lead type (e.g. PVC, XLP) _____ Lead length _____
 Voltage (in Vac or Vdc) _____ Current _____

Environment

Operating temperature range _____ IP class _____
 Certificates/approvals _____

Additional information