Temperature Switch for General Applications

Series TPR

- ♦ High Accuracy
- ♦ Nema 4X & IP 65
- ♦ UL, CSA and CE Approved

Design







Barksdale's TPR Series Temperature Switch adds

flexibility to Barksdale's solid reputation for quality & reliability, and offers versatility for your temperature sensing needs. This switch is ideal for applications where freeze protection or lower temperature control is critical. The TPR is available in either field adjustable, NEMA 1, or factory set and locked NEMA 4X configurations. The tin-plated sensor comes in 3 or 10 foot lengths. The **TPR Series** feature limit switches with 10 amps @ 125/250 VAC and 3 amps @ 480 VAC electrical ratings. Optional 22 amp limit switches allow thermostats to be used for higher current, heat tracing applications. The **TPR Series** is UL listed and CSA approved.

When Temperature Matters, Call Barksdale

For many years, Barksdale temperature switches have been switching, measuring and controlling critical processes throughout the world.

Protect Your Equipment with Barksdale

Barksdale temperature switches prevent damage to heavy industrial equipment by monitoring the temperature of engine fluids and protecting against thermal overloads. Hydraulic power units are protected by controlling the temperature of fluids in systems in reservoirs.

In cold climates, Barksdale temperature switches control heating devices that prevent pipes, valves and fittings from freezing preventing expensive loss and downtime. Barksdale thermostats also control the temperature in process piping to maintain the proper flow of media.

Barksdale temperature switches can be used in a variety of applications:

- Hydraulic Power Units
- Combustion Engines
- Tanks and Reservoirs
- Gearboxes
- Pumps
- Compressors
- Machine Tools and Industrial Equipment
- Farm & Construction Machinery
- Process Equipment



Need Something Special?

If you have special product requirements, we can help. Barksdale specializes in custom design solutions to meet your needs. We have design engineers and technical specialists who are experts in solving your unique temperature problems. Our technology and resources are at your disposal.

Need More Information?

We are only a phone call away.

Toll-Free: 1-800-835-1060.



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Performance Characteristics

Accuracy ±1% of full scale

Switch

Type SPDT, Prewired Snap Action 10 amp @ 125/250 VAC Rating

3 amp @ 480 VAC

Adjustable Range 15°F to 140°F

> $(-9^{\circ}C \pm 60^{\circ}C)$ For Q10 Models only: Factory set range of 40°F Close on decreasing temperature

Bulb and Capillary

Material Copper, tin plated

Bulb 3.12" (79mm), 0.39" (10mm) dia.

Capillary Length 30" (762mm)

System Pressure (max) 300 psi without thermowell

Silicone oil-filled

Physical

Weight 1.1 pound (0.5 kg) **Enclosure** Polycarbonate, black Ratings NEMA 1 standard NEMA 4X optional

Electrical Connection 1-1/8" (28mm) hole for 3/4" NPT

conduit hub

12", 14 AWG stranded copper wire, PVC jacketed

Approvals UL, CSA

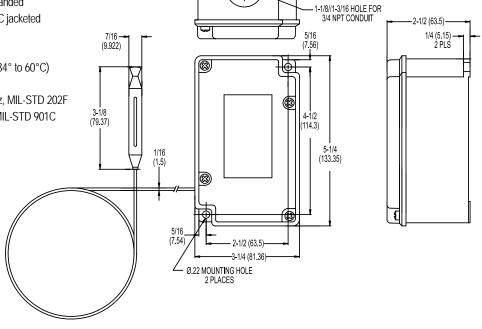
Environmental

Ambient Temperature -30° to 140°F (-34° to 60°C) ENI/RFI to EN 5011



Media Temperature Limits	Adjustable Range	Differential (approximate)	Catalog Number
-40 to 160°F	15 to 140°F	10°F	TPR-H1N-3
(-40 to 71°C)	(-9 to 60°C)	(5.6°C)	
-40 to 160°F	40°F	10°F	TPR-L1N-3X-Q10
(-40 to 71°C)	(4.4°C)	(5.6°C)	

(24.3)





Temperature Switch for General Applications - Configurator

Series TPR

T Temperature Switch
P Polycarbonate Plastic Nema 1 Enclosure
Remote Bulb & Capillary
Limit -H 10 amps @ 125, 250 VAC & 3 amps @ 480 VAC (Standard)
Switch -M 10 amps @ 125, 250 VAC & 3 amps @ 480 VAC., 0.5 amps @ 125 VDC & 0.25 amps @ 250 VD
Class* -GH 1.0 amps @ 125 VAC, Gold Contact Limit Switch
L_ 22 amps @ 125, 250 & 480 VAC; Standard "Q10" models only
Sensor Range** 1 +15° to +140°F
Sensor Material N Nickel-plated Copper Sensor
Bulb & Capillary Length -3 3ft Bulb & Capillary Sensor
-10 10ft Bulb & Capillary Sensor
Options A Field Adjustable without reference dial (No UL - CSA Approval)
X Nema 4X Enclosure (Factory Pre-set @ 40°F and Locked)
Q10 Heat Tracing models only
* * * * * * * * * * *
T P R -H 1 N -3 A

Example: TPR-H1N-3A

NOTE:

Operating Characteristics

ſ	Range	Adjustable Range				Media Temperature Limit (Proof)			Differential (Approx.) Liquid		
١.						\/			(Approx.) Liquid		
ı		°F		°C		°F		°C		∘⊏	°C
Ι.		Low	High	Low	High	Low	High	Low	High	-	
ľ	1	+15	+140	-0	+60	-40	+160	-40	+71	10	5.6

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^{*} Changing Limit Switch will affect Deadband. See Sales Drawing.

^{**} See Operating Characteristics.