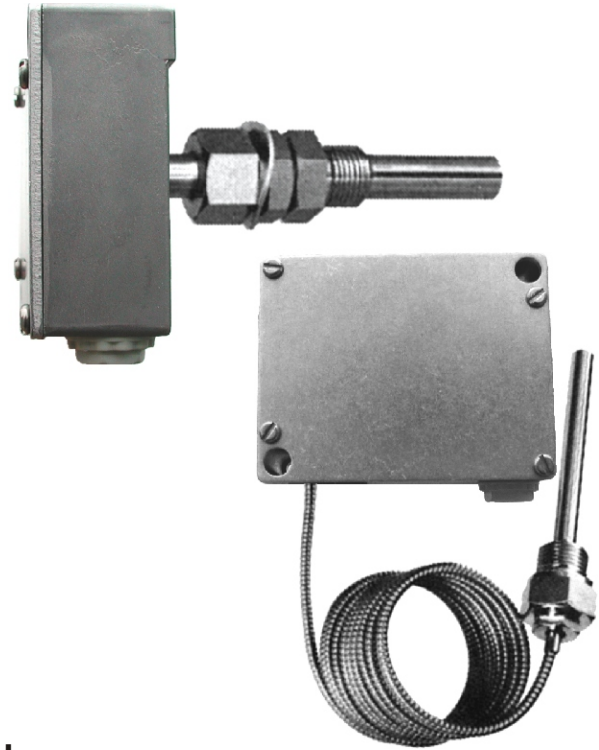




Industrial Temperature Switch

SERIES: TSM320

- TWO SWITCHES
- SEALED TO IP-65
- COMPACT DESIGN
- SHORT RESPONSE TIME
- ST. STEEL OR COPPER SENSOR
- RANGES COVERING -30 TO +350°C
- REPEATABILITY BETTER THAN 0.5%
- TEMPERATURE COMPENSATED SWITCH
- GOLD PLATED CONTACTS FOR INTRINSICALLY SAFE CIRCUITS



- APPLICATIONS:**
- Refrigeration
 - Storage Room
- Heating & Air Conditioning
 - Hydraulic / Pneumatic

INTRODUCTION

Indumart *TSM320 Series* Industrial Temperature Switches meet stringent demands and can be used in critical industrial applications where particular importance is attached to measuring reproducibility, long term stability and protection against water and dust penetration.

The Series *TSM320* Temperature Controllers with two ON/OFF switches are supplied with either stainless steel or copper sensors. The sensor may be directly attached to the case, or be separated from the case with a capillary tube for remote mounting.

The switching differential varies for different ranges of *TSM320 Series*. Both standard and small switching differential models are available. Optionally, the standard model can be supplied with gold-plated contacts.

SPECIFICATIONS

- Number of Switches** 2
- Repeatability** $\leq \pm 0.5\%$ of full scale
- Scale Accuracy** $\pm 2\%$ of full scale
- Case Material** Aluminum die-cast
- Tube** Steel nickel-plated
- Connection** $\frac{3}{4}$ "
- Environ. Protection** IP-65
- Microswitch** Temperature compensated with Bimetal switch lever
- Action** Type 2.B (EN60730-1 / 60730-2-9)
- Adjustments** Internal or external of the case
- Weight** Approximately 680 g (1.5 lb)

Type	Electrical Rating		Connection
	AC	DC	
A	400V-15A	220V-0.2A 110V-0.4A 24V-6A 12V-15A	
B	250V-10A	220V-0.3A 110V-0.5A 24V-5A 12V-15A	
D (Gold Plated Contact)	24V-0.01A 12V-1.0A 5V-2.0A	24V-0.01A 12V-1.0A 5V-2.0A	

Switching Differential

Range	30...+40°C -10...+25°C 0...+35°C 10...+45°C 10...+80°C 15...+30°C	-10...+80°C -10...+35°C 5...+95°C 20...+110°C	20...+150°C	20...+230°C	40...+300°C 70...+350°C
Model A & D	~1.8°C	~2.5°C	~3.0°C	~4.5°C	~5.0°C
B	~0.7°C	~1.5°C	~1.8°C	~2.0°C	~2.5°C

ORDER CODE	DIMENSIONS (mm)																																																
<p>INDUSTRIAL TEMPERATURE SWITCH</p> <p>Model: TSM320 - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>RANGE</p> <table border="0"> <tr><td>-30...+40°C</td><td>01</td></tr> <tr><td>-10...+80°C</td><td>02</td></tr> <tr><td>-10...+35°C</td><td>03</td></tr> <tr><td>-10...+25°C</td><td>04</td></tr> <tr><td>0...+35°C</td><td>05</td></tr> <tr><td>5...+95°C</td><td>06</td></tr> <tr><td>10...+45°C</td><td>07</td></tr> <tr><td>10...+80°C</td><td>08</td></tr> <tr><td>15...+30°C</td><td>09</td></tr> <tr><td>20...+110°C</td><td>10</td></tr> <tr><td>20...+150°C</td><td>11</td></tr> <tr><td>20...+230°C</td><td>12</td></tr> <tr><td>40...+300°C</td><td>13</td></tr> <tr><td>70...+350°C</td><td>14</td></tr> </table> <p>SWITCHING DIFFERENTIAL & ELECTRICAL RATING (See the Table)</p> <p>Type "A" (Standard) <input type="checkbox"/> A</p> <p>Type "B" (Small Differential) <input type="checkbox"/> B</p> <p>Type "D" (Gold Plated) <input type="checkbox"/> D</p> <p>SENSOR MATERIAL</p> <p>316L St. Steel <input type="checkbox"/> 1</p> <p>Copper <input type="checkbox"/> 2</p> <p>Nickel-plated Copper <input type="checkbox"/> 3</p> <p>Chrome-plated Copper <input type="checkbox"/> 4</p> <p>MOUNTING</p> <p>Direct with protection tube <input type="checkbox"/> 1</p> <p>Remote with capillary <input type="checkbox"/> 2</p> <p>Please specify the sensor length, sensor diameter, capillary length (if required) and the protection tube diameter.</p>	-30...+40°C	01	-10...+80°C	02	-10...+35°C	03	-10...+25°C	04	0...+35°C	05	5...+95°C	06	10...+45°C	07	10...+80°C	08	15...+30°C	09	20...+110°C	10	20...+150°C	11	20...+230°C	12	40...+300°C	13	70...+350°C	14	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Ød</th> <th>G</th> </tr> </thead> <tbody> <tr><td>Ø10</td><td>110</td></tr> <tr><td>Ø10</td><td>150</td></tr> <tr><td>Ø10</td><td>200</td></tr> <tr><td>Ø12</td><td>90</td></tr> <tr><td>Ø12</td><td>110</td></tr> <tr><td>Ø12</td><td>140</td></tr> <tr><td>Ø15</td><td>40</td></tr> <tr><td>Ø15</td><td>65</td></tr> <tr><td>Ø15</td><td>80</td></tr> </tbody> </table>	Ød	G	Ø10	110	Ø10	150	Ø10	200	Ø12	90	Ø12	110	Ø12	140	Ø15	40	Ø15	65	Ø15	80
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