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CHT51 SENSORswitches are designed for gluing to insulated glass (double-glazed glass). They are constructed for two-sided operation and switch by light touch on the pane of glass. On that score they are suitable for applications from the inside and outside of a vehicle or building with double-glazed glass. For their installation and application is no hole required in the pane.

As door opening buttons CHT51 SENSORswitches are suitable for the high frequency continuous service used in the passenger transport and building technology.

The switches provide optical feedback via 16 bright LEDs. According to the requirements of TSI-PRM for people with limited mobility, the outer ring can be equipped with Braille and raised pictograms.

Please find below the most important features listed:

- Two-sided operation through double glass
- Ø 63mm switch surface
- 14mm height inside / 3,2mm height outside
- Profile angle 90° (Option: 84° / 80° / 60°)
- Customization through symbols and colours of the cover ring
- TSI-PRM compliant – Pictograms and braille available
- Optical feedback through LEDs

CAPTRON can provide individual advice to enable you to choose the perfect product from the CHT51 series for the required specifications and applications.

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Legend:

- (A) = Coloured position ring (outside)
- (B) = Glass panes (double glazing; pane thickness up to max. 4mm each; distance between panes max. 8mm)
- (C) = Mounting flange BF95-2
- (D) = sensor element
- (E) = Coloured cover ring AR5-2X_ (inside)



Technical data at 24 V and 20 °C:			
Supply voltage:	DC 24V (16,8 ... 32V)	Short-circuit protection:	Short-circuit and overload protection
	DC 12V (8,4 ... 15,6V - Option -) DC 110V (77 ... 137,5V - Option -)	Voltage drop:	max. 3 V at 400 mA (24V)
Load current:	max. 200 mA (at 24V / 12V)	Current consumption:	max. 3V at 200 mA (12 V) max. 3V at 10 mA (110 V)
	max. 15 mA (at 110V)		max. 30 / 35 mA (24 V – 4-pin/5-pin)
Output:	PNP-NO	Operation temperature:	max. 20 mA (12V) max. 15 mA (110V)
Output signal:	~ 1 s (depending on the duration of operation)	Degree of protection (IP):	-30 °C ... +70° C
LED 1:	8 green LEDs	Type of operation:	Frontside IP69K
LED 2:	8 red LEDs	Operation force:	Capacitive
Reverse polarity protection:	Protection of all lines		No operation force required



Configuration help CHT51-2

Type code 1 – Position ring and cover ring = same colour ¹:

CHT51	-	C1 2	C2 6	C3	C5	-	C6	/	-	C7	/	O1	/	O2
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Example: CHT51 - 2 6 1 P - H / TG - SR / T6

Type code 2 – Position ring and cover ring = deviating colours ¹:

CHT51	-	C1 2	C2 6	C3	C4	C5	-	C6	/	-	C7	/	O1	/	O2
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C1 – Mounting

Code	Description
2	Adhesive mounting on double glass pane

C2 - Type of connection ⁴

Code	Description
6	Connector JST (4-pin / standard)
M	Connector JST (5- pin / only together with C5 -> B)

C3 – Colour of the cover ring and the position ring (T1) Colour of the cover ring (Type code 2)

Code	Description	
0	Traffic red (RAL 3020)	
1	Traffic green (RAL 6024)	
2	Sky blue (RAL 5015)	
5	Traffic yellow (RAL 1023)	
6	Traffic black (RAL 9017)	
K	Traffic grey A (RAL 7042)	

C4 - Colour of the position ring (Type Code 2 only)

Code	Description	
0	Traffic red (RAL 3020)	
1	Traffic green (RAL 6024)	
2	Sky blue (RAL 5015)	
5	Traffic yellow (RAL 1023)	
6	Traffic black (RAL 9017)	
K	Traffic grey A (RAL 7042)	

C5 - LED-control ² / Numbers of pins / Supply voltage

Code	Description
P	Semi-Automatic / 4-pin / DC 24V
B	Manual / 5-pin / DC 24V
G	Semi-Automatic / 4-pin / DC 12V
U	Semi-Automatic / 4-pin / DC 110V

C6 - Symbol on switch surface

Code	Description
30	White surface
H	Hand (green on white)



For further symbols please see our Symbol list ([Link](#))*

* all symbols marked as „Standard“ are already available from 1 pieces / order up without any surcharge.

C7 – LED colours (LED1 – LED2)

Code	Description
TG-SR	Green (LED1) / Red (LED2) - Standard
-	-
-	-

O1 - Version of the cover ring and position ring ³

Code	Description
-(w/o)	Standard version
T6	TSI-PRM compliant
-	-

O2 - Profile angle of the cover ring

Code	Description
-(w/o)	90° - Standard -
84°	84° angle version
80°	80° angle version
60°	60° angle version

Please note the additional information and explanations on the following pages.
Thank you!

Additional information & explanations on the previously described configuration items:

to ¹⁾ / Explanation of the type codes 1 / 2:

The CHT51-2 series SENSORswitches have a coloured position ring, which is attached to the outside of the glass pane by adhesive mounting, and a coloured cover ring, which is clipped onto the mounting flange on the inside.

These rings can either have the same colour (-> **type code 1**) or different colours (-> **type code 2**; e.g. coloured cover ring = traffic black, coloured position ring = traffic green)

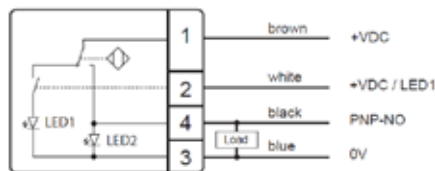
to ²⁾ / LED control:

LED control - **Semi-Automatic:**

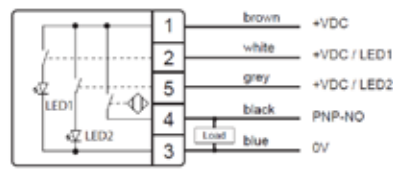
Die LED1 (green / operating state) can be controlled separately. When the SENSORswitch is actuated, LED1 goes out and LED2 (red / switching state) lights up

- **Manual:**

Both LED1 and LED2 can be controlled separately as required. This function is currently only available when the **DC 24V version** is selected!



Connection diagram „P“ / „G“ / „U“
PNP-NO // Semi-Automatic

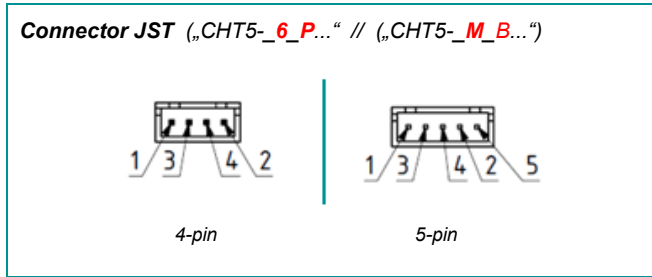


Connection diagram „B“
PNP-NO // Manual

to ³⁾ / version of the coloured position ring and the coloured cover ring:

<p>Standard version</p>	<p>Position ring (outside)</p> <p>Cover ring (inside)</p> <p>All dimensions in mm</p>
<p>TSI-PRM compliant rings (T6)</p>	<p>Position ring (outside)</p> <p>Cover ring (inside)</p> <p>All dimensions in mm</p>

to ⁴⁾ / Types of connection:



You need support with the configuration?

Our internal sales team will be happy to advise you on this (Tel.: +49 (0)8142 / 44 88 – 160; sales@captron.com)

You need data sheets and/or 3D data?

Please also contact our internal sales department. Thank you.