



## BRIEF INFORMATION

### Wipe/wash interval control units

- › Precise control of the wiping frequency for cleaning of windscreen as required
- › These control units ramp up driving comfort and also the safety level for the driver
- › Many interval control units can be adapted to suit different weather and driving conditions so that the wiping intervals can be set individually

## PRODUCT FEATURES

### Application

A wipe/wash interval control unit is an electronic control element that is used in vehicles to precisely regulate the interval times of the windscreen wipers. It enables flexible adjustment of the wiping frequency in accordance with the prevailing weather conditions.

### Design and function

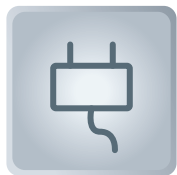
The wipe/wash interval control unit essentially consists of a pulse generator with a fixed or variable pulse-pause ratio. Each pulse with which the wipe/wash motor is activated via a relay causes the windscreen wipers to move back and forth once.

The control unit is made up of

- the printed circuit board with electronic components, flat connectors and a PCB relay
- plastic housing, partly with bracket

In the wipe-wash interval controller, the timer is designed as a stable multivibrator. A failure control stage, as required by the flasher system, is not necessary here.

# CONNECTIONS AND CONNECTOR CONFIGURATION


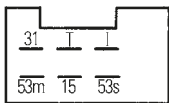

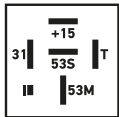

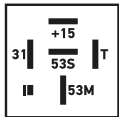

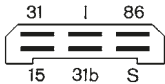

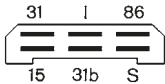


The connections of the relays are each labelled with numbers. The corresponding assignment is enclosed.

## Wipe/wash interval control units

- I** Interval wiping (input)
- S, 53 M** Excitation winding wiper motor (output)
- T, 86** Wash button (input)
- 15** Battery +, switched (input)
- 31** Ground
- 31b, 53S** Cam switch wiper motor / park position / limit switch (input)

## PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE*
WIPE/WASH CONTROL UNIT 12 V, WITH BRACKET				
		12 V, 6-pin Operation times: $4 \pm 1$ s drop-off delay** 1 s turn-on delay*** $5 \pm 1$ s pause time***  Load current: max. 10 A Voltage range: 9–16 V Temperature range: -30 to +70 °C Bracket: yes	<b>5WG 002 450-111</b>	1
WIPE/WASH CONTROL UNIT 12 V, WITHOUT BRACKET				
		12 V, 6-pin Operation times: $6 \pm 1$ s drop-off delay** 1 s turn-on delay*** 6 s pause time***  Load current: max. 5 A Voltage range: 10–16 V Temperature range: -30 to +80 °C Bracket: no	<b>5WG 003 620-091</b>	1
		Load current: max. 5 A Voltage range: 10–16 V Temperature range: -30 to +80 °C Bracket: no	<b>5WG 003 620-097</b>	100
		12 V, 6-pin Operation times: $3.9 \pm 1$ s drop-off delay* 0.8 to 0.4 s turn-on delay*** $6.5 \pm 1.5$ s pause time***  Load current: max. 20 A Voltage range: 10–15 V Temperature range: -20 to +60 °C Bracket: no	<b>5WG 996 165-001</b>	1
		Load current: max. 20 A Voltage range: 10–15 V Temperature range: -20 to +60 °C Bracket: no	<b>5WG 996 165-007</b>	50

\* Packaging unit / \*\* Wipe/wash operation / \*\*\* intermittent mode

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE*
WIPE/WASH CONTROL UNIT 24 V, WITH BRACKET				
		24 V, 6-pin Operation times: 4 ± 1 s drop-off delay** 1 s turn-on delay*** 5 ± 1 s pause time*** Load current: max. 10 A Voltage range: 21–30 V Temperature range: -30 to +70 °C Bracket: yes	5WG 002 450-121	1
		24 V, 6-pin Operation times: 4 ± 1 s drop-off delay** 1 s turn-on delay*** 5 ± 1 s pause time*** Load current: max. 3.5 A Voltage range: 21.2–30 V Temperature range: -40 to +85 °C Bracket: yes	5WG 002 450-287	50
		24 V, 6-pin Operation times: 4 ± 1 s drop-off delay** 1 s turn-on delay*** 5 ± 1 s pause time*** Load current: max. 3.5 A Voltage range: 21.2–30 V Temperature range: -40 to +85 °C Bracket: yes	5WG 002 450-291	1
			5WG 002 450-297	100
WIPE/WASH CONTROL UNIT 24 V, WITHOUT BRACKET				
		24 V, 6-pin Operation times: 4 ± 1 s drop-off delay** 1 s turn-on delay*** 5 ± 1 s pause time*** Load current: max. 3.5 A Voltage range: 21.2–30 V Temperature range: -40 to +85 °C Bracket: no	5WG 002 450-301	1
			5DW 002 450-307	140

\* Packaging unit / \*\* Wipe/wash operation / \*\*\* intermittent mode