LW-Series Wiper/Washer Control

Keeping in step with the needs of the Transportation Industry, Carling Technologies introduces yet another addition to our L-series family of Control Products, the new Wiper/Washer Control. Offering the best of both worlds, this new product combines the reliability and performance that you've come to expect from the L-Series along with sleek aesthetics to seamlessly integrate into most any dashboard design. The Wiper/Washer Control features a robust packaging design which protects critical components, offers flexibility to meet a variety of customer requirements, while controlling several functions through the use of one single Control Product. Our integrated design provides an added bonus with the cost savings realized from the reduced need for insulated wires and connectors.

Electrical

Current Rating . . . . . ***1 relay***
8 amps, 14 VDC
4 amps, 28 VDC
2 relays
1 amps, 14 VDC
1 amps, 28 VDC

Terminals . . . . . .187 (7.4mm) Quick Connect terminations standard.

Electrical Properties . . . . . Reverse polarity protection
Over voltage protection
Cold cranking protection according to SAE J1455, Sections. 4.11.1.1.1 and 4.11.1.2.1
Transient voltage protection which includes load dump and inductive switching according to SAE J1455, sec. 4.11.2.2
Electrostatic discharge protection according to SAE J1455 Sec. 4.11.2.2.5.1 (Discharge a 150 pf capacitor that has been charged to a potential of 15kV through 150 Ohm resistor.)
Meets all other EMI/EMC requirements for class C trucks.

Mechanical

Mechanical Vibration . . . . Sinusoidal Vibration: 10-55-10 Hz, 0.06" DA, one minute-cycle, three hours/axis
Random Vibration: Three hours/axis, three mutually perpendicular axes with a test level 4G's.

Frequency	Amplitude
5Hz	0.16 G^2/Hz
100Hz	0.16 G^2/Hz
500Hz	-3dB/octave roll-off

Tests were conducted according to SAE J1455, Sec 5.7 and Sec. 4.9.4.
Shock: MIL-STD-202G Method 213B, Test Condition K, 30G's, 11 ms.

Endurance Test . . . . . According to SAE J2349, March 97 for windshield washer switch for Trucks, Buses and Multipurpose Vehicles (20,000 cycle minimum).

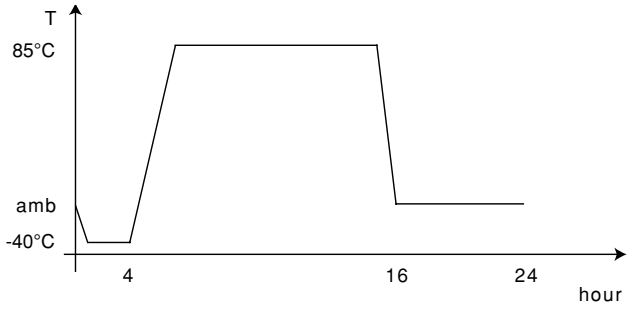
NOTES:
For more detailed specifications, consult factory.

Physical Characteristics

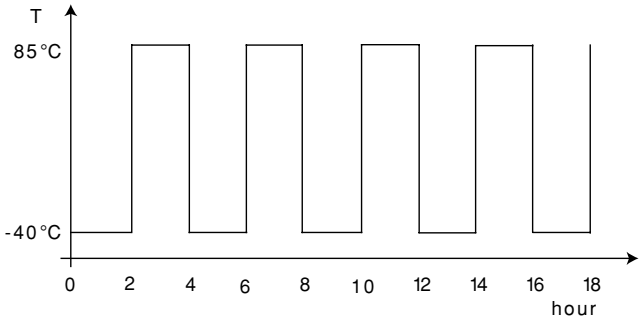
Illumination . . . . . LED, rated 100,000 hours 1/2 life
Cover . . . . . Acetate
Washer Actuator . . . . . .Silicone
Toggle Actuator . . . . . .Nylon 6/6 glass filled
Bracket . . . . . Nylon 6/6
Connector . . . . . .Nylon 6/6 rated 85° polarized
Washer Function . . . . . .Momentary
Toggle Function . . . . . .Maintained Intermittent
Operation . . . . . Momentary
Weight . . . . . 44 grams

Environmental

Operating Temperature . . . -25° C to + 85° C
Temperature Cycle . . . . . .According to SAE J1455, Sec. 4.1.3.1 (See Figure below)



Thermal Shock . . . . . According to SAE J1455, Sec. 4.1.3.2 (see Fig)



Humidity . . . . . According to SAE J1455, Sec. 4.2.3 (30 cycles for 8 hrs. with maximum temperature of 85°C and 95% relative humidity.

Dust Bombardment . . . . . .According to SAE J1455, Sec. 4.7.3 (with dust concentration of 0.88gm/m^3 for 24 hours.)

Salt Spray . . . . . MIL-STD-202G, Method 101D for 96 hours.

LW	1	A	1	1	Z	-	1	1	AA	1	AA
1 Series	2 Rating	3 Intermittent Timing	4 Wiper/Washer Timing	5 Lamp #1	6 Lamp #2		7 Bracket Color	8 Rocker/Paddle Color	9 Legend One	10 Legend Orientation	11 Legend Two

1 SERIES
LW Wiper/Washer Control with six intermittent positions: low. high, wash/wipe

2 RATING[1]

1	8A, 14VDC (1 relay)	**4**	1A, 14VDC (1 relay)
2	4A, 28VDC (1 relay)	**5**	1A, 14VDC (2 relay)
3	1A, 14VDC (1 relay)	**6**	1A, 28VDC (2 relay)

3 INTERMITTENT TIMING
A 2-15 seconds

4 WIPER/WASHER TIMING

1	3 seconds	**2**	4 seconds

5 LAMP #1 (above wash)

Z	no lamp	**2**	red LED
1	green LED	**3**	amber LED

6 LAMP #2 (above wipe)

Z	no lamp	**2**	red LED
1	green LED	**3**	amber LED

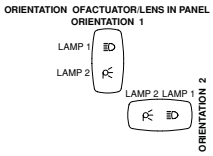
7 BRACKET COLOR
1 black

8 ROCKER/PADDLE COLOR
1 black

9 LEGEND #1
00 No legend

For legend options, see page 69 of this catalog.

10 LEGEND ORIENTATION
0 No legend
1 vertical (lamp 1 on top)
2 horizontal (lamp 1 on right)



11 LEGEND #2
00 No legend

For legend options, see page 69 of this catalog.

NOTES
1 Relay coil current is 1A max. Relay must have an arc suppression in parallel with the coil.