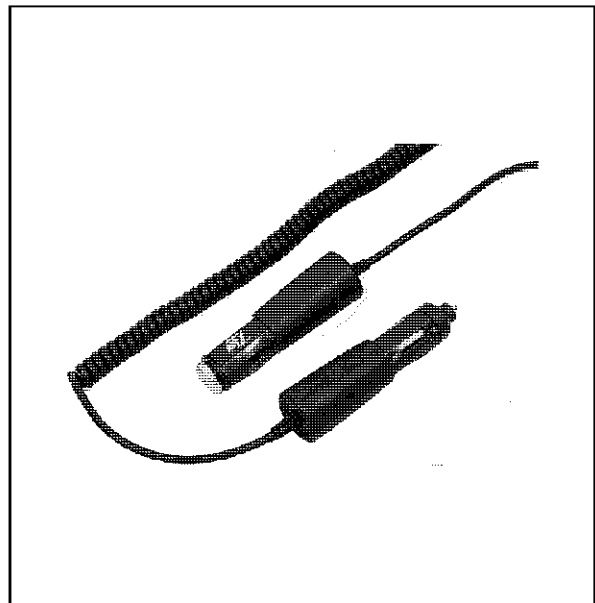


**BATTERY CHARGER**

Type	V <sub>i</sub>	V <sub>o</sub>	I <sub>o</sub>
GSCC-8.507BC	10.8 to 16 V	8.5 V	700 mA

**FEATURES**

- Charge of NiCd or NiMH batteries
- Switch mode constant current generation
- Three level charging current (fast, trickle, zero charging current)
- Overcharge detection by  $-\Delta V$  and  $\Delta T/\Delta t$  under internal microprocessor control
- No discharge of the battery when charger is turned off
- Initial trickle charge for deeply discharged batteries
- Maximum battery voltage protection
- Maximum battery temperature protection
- Timer back up protection
- Output short circuit protection
- Detection of fault battery
- Charge status displayed by LED

**DESCRIPTION**

The GSCC-8.507BC is a high efficiency battery charger for IN CAR application to be used with 5 cell NiCd or NiMH batteries.

Two versions of the INPUT PLUG ADAPTOR are available:

**WASHER TIP VERSION:**                    **GSCC-8.507BC-E** (Ordering Number)

**SPRING-LOADED TIP VERSION:**   **GSCC-8.507BC-A** (Ordering Number)

(See pag. 3 for mechanical data)

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25^{\circ}C$  unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_i$	Input Voltage	$I_{ch} = 0$ to 0.7A	10.8	14.4	16	V
$I_{chf}$	Fast Charge Current	$V_i = 10.8$ to 16V $V_{battery} = 5$ to 8.2V	0.65	0.70	0.75	A
$I_{cht}$	Trickle Charge Current	$V_i = 10.8$ to 16V $V_{battery} = 1$ to 5V or $0^{\circ}C < T_{batt} < 10^{\circ}C$ or charge completed	20	30	40	mA
C	Returned Charge	$V_i = 10.8$ to 15V		95		%
$V_{batt}$	Maximum Battery Voltage Protection	$V_i = 10.8$ to 16V $I_{ch} = 0.7A$	8.2	8.5	8.7	V
$T_{co}$	Battery Temperature Cut Off	$V_i = 10.8$ to 16V $I_{ch} = 0.0A$		50		$^{\circ}C$
$t_{out}$	Time Out Protection Duration	$V_i = 10.8$ to 16V $I_{ch} = 0.7A$		2		hours
$f_s$	Switching Frequency	$V_i = 10.8$ to 16V $I_{ch} = 0.03$ to 0.7A		100		kHz
$T_{op}$	Operating Ambient Temperature Range		- 20		+60	$^{\circ}C$
$T_{stg}$	Storage Temperature Range		- 25		+85	$^{\circ}C$

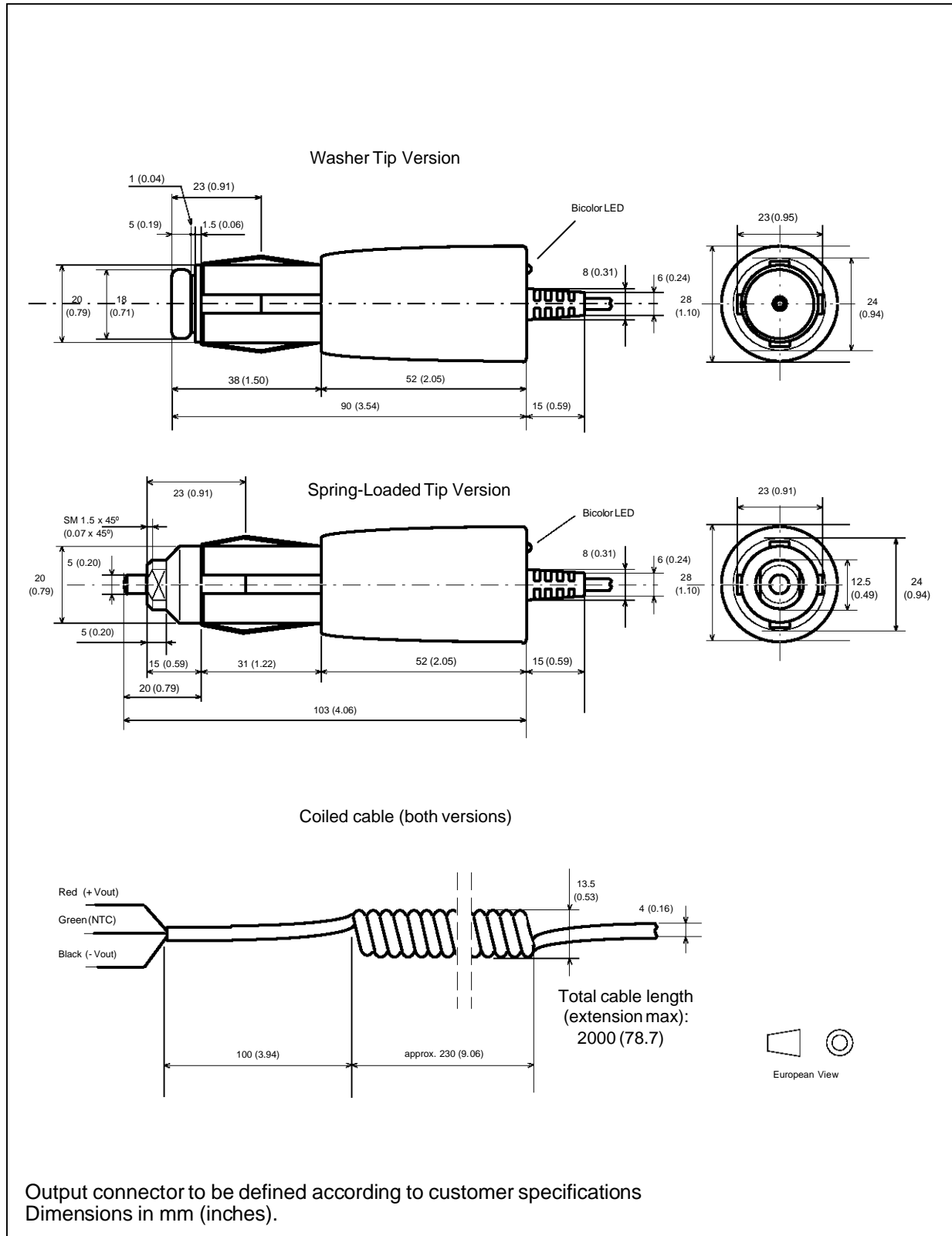
Status	Condition
Red ON	- Fast charge ( $I_{ch} = 0.7A$ )
Green ON	- Charge Completed ( $I_{ch} = 0.03A$ ) - Timer elapsed
Red Flashing	Anomalous battery conditions ( $I_{ch} = 0.0A$ ) - Initial $T_{battery} < 0^{\circ}C$ - Initial $T_{battery} > 40^{\circ}C$ - $T_{battery} > 50^{\circ}C$ - Faulty battery
Green Flashing	( $I_{ch} = 0.03A$ ) - Initial charge of deeply discharged batteries - $0^{\circ}C < T_{batt} < 10^{\circ}C$
OFF	Battery not connected

**NOTES**

- 1 - The battery temperature detection is a function of the characteristics of the NTC resistor used inside the battery pack. Please consult factory.
- 2 - Different fast charge and trickle charge currents,

- and different time out are available on request (Maximum charge current cannot exceed 1A).
- 3 - For connector to the battery pack please consult factory.

CONNECTION DIAGRAM AND MECHANICAL DATA



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