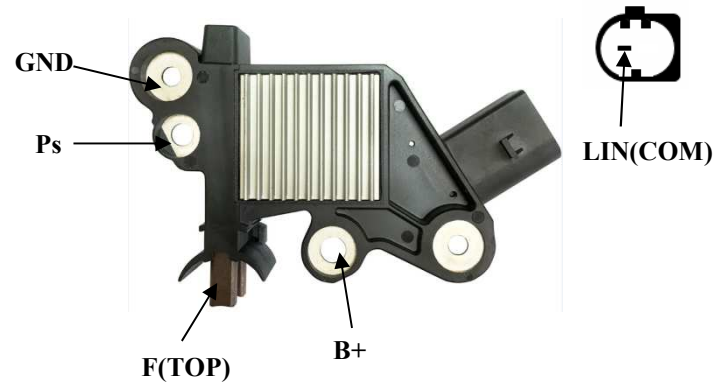


NAME	VR-B890 Electrical Specification	NO	VR-1-1-2650
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<p style="text-align: center;">Regulation System Connection Wire Diagram</p> 	<p>Regulator Features :</p> <ul style="list-style-type: none"> ● Voltage Set Point : 13.7V (Default Vset) ● Regulation : B – Circuit ● Standby mode ● Leakage current control ● Self mode ● Default mode ● LIN (Com) mode ● 19200 Baud rate (4byte) ● Variable V setting ● Field out duty monitor ● Temperature & Field current
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PARAMETERS AND CONDITIONS	SPEC	Min.	Type	Max.	SYMBOLS
Operating Temperature	Operating Temperature	-30	---	125	°C
Switch OFF Leakage Current	Ps < 800rpm , LIN= Low , B+=12.0V	---	---	30	mA
Regulator Set Point	Default Mode	13.5	13.7	13.9	V
	Defined by external ECU/LIN command.	10.6	---	16.0	V
Output Saturation Voltage	I F = 5A	---	---	0.5	V
Field Current Limit	F shorted to B+	10	---	---	A
Field Control Frequency	10% < duty cycle < 95%	---	400	---	Hz
Error Display High Temp. Protection Threshold on board(substrate)	Field output OFF	---	160	---	°C
Self Drive Initiation rpm Threshold	Safe mode Frequency given according to the programmed number of generator poles	2550	3000	3450	rpm

Safety Characteristics:

- **Over voltage :** Vs = 24 V , 60 sec. from the ignition SW. is turned ON/OFF without failure.
- **Short Circuit Protection :** The regulator shall stand **short circuit on Field** without failure and return normal operation within 2 seconds once short condition is removed.
- **Repetitive Thermal Shock :** The Regulator shall be designed to withstand 500 cycles of -30°C to 125°C in 20 minutes and 125°C to -30°C in 20 minutes.
- **High Temperature Test :** The regulator shall be designed to operate reliably at the load from 80% to 100% of the alternator rated current and at 6000 rpm (shaft speed) for a minimum of 10 hours at 125°C.

2025.10.13		1	張家豪	柯文彬	林勝雄	林勝雄		
DATE OF FIRST EDITION	DATE OF REVISED EDITION	EDITION	MANU-SCRIPT	ORI-GINAL REVIEW	SECOND REVIEW	APP-ROVAL	ISSUED MARK	COPY'S NUMBER