

# TECHNICAL BRIEF

## Genius Modular Redundancy Approved Components List

The following components have been approved by TUV for use in Genius Modular Redundancy systems. The last Catalog Number suffix shown for each Component is the most currently approved version. The previous Catalog Number suffixes shown correspond to earlier TUV certificates and approvals. The Latest Firmware Revision for a Component is listed beside the corresponding Catalog Number revision.

Component	Catalog Numbers	Latest Firmware Revision
Series 90-70 PLC Rack, 9 Slot, Rear Mounted	IC697CHS790D IC697CHS790E IC697CHS790F IC697CHS790G IC697CHS790H IC697CHS790J IC697CHS790K	(1)    (2) (3) (1)
Series 90-70 PLC Rack, 9 Slot, Front Mounted	IC697CHS791G IC697CHS791H IC697CHS791J IC697CHS791K	(1) (2) (3) (1)
Series 90-70 PLC Rack, 5 Slot, Rear Mounted	IC697CHS750E IC697CHS750F IC697CHS750G IC697CHS750H	(1) (2) (3) (1)
Series 90-70 PLC Duplex Integrator Rack (BRE), Rear Mount	IC697CHS770C IC697CHS770D IC697CHS770E	(1) (2) (1)
Series 90-70 PLC Duplex Integrator Rack (BRE), Front Mount	IC697CHS771C IC697CHS771D IC697CHS771E	(1) (2) (1)
Series 90-70 Power Supply Module, 120/240Vac, 100 Watts	IC697PWR711CX IC697PWR711G IC697PWR711H IC697PWR711J IC697PWR711K IC697PWR711L IC697PWR711M IC697PWR711N	(1)    (2)
Series 90-70 Power Supply Module, 24/48Vdc, 90 Watts	IC697PWR724D IC697PWR724E IC697PWR724F	(1)  (2)
Series 90-70 PLC CPU	IC697CPU788-DA IC697CPU788-EA IC697CPU788-FA IC697CPU788-GA	5.01 (2)
Series 90-70 PLC CPU	IC697CPU789-DA IC697CPU789-EA IC697CPU789-FA IC697CPU789-GA	5.01 (2)
Series 90-70 CPU Memory Expansion	IC697MEM735D IC697MEM735E IC697MEM735F IC697MEM735G	(2)

Component	Catalog Numbers	Latest Firmware Revision
Series 90-70 PLC CPU	IC697CPM790-BB IC697CPM790-CB IC697CPM790-CC IC697CPM790-DC IC697CPM790-ED IC697CPM790-FD IC697CPM790-GD	(2) 6.04 6.04 6.04
Series 90-70 Bus Expansion Receiver Module	IC697BEM711J IC697BEM711K IC697BEM711L IC697BEM711M IC697BEM711N	(1)    (2)
Series 90-70 Bus Expansion Transmitter Module	IC697BEM713F IC697BEM713G IC697BEM713H IC697BEM713J	(1)   (2)
Series 90-70 Genius Bus Controller Module	IC697BEM731N IC697BEM731P IC697BEM731R IC697BEM731S IC697BEM731T IC697BEM731U IC697BEM731V IC697BEM731W IC697BEM731X IC697BEM731Y IC697BEM731Z	          (2) 5.9/4.8 6.0/4.8
Series 90-70 Single Slot Genius Bus Controller Module	IC687BEM731-AA IC687BEM731-AB	5.9/4.8 6.0/4.8
Genius 16 PT DC Source Block (IC660BBD020 consists of IC660EBD020M or later and IC660TSD020K or later) (4)	IC660BBD020M IC660BBD020N IC660BBD020P IC660BBD020R IC660BBD020S IC660BBD020T IC660BBD020U IC660BBD020V IC660BBD020X IC660BBD020Y	4.3 (2)
Genius 16 PT DC Source Block (IC660BRD020 consists of IC660ERD020A or later and IC660TRD020A or later) (4)	IC660BRD020A IC660BRD020B IC660BRD020D IC660BRD020E IC660BRD020F	4.3 (2)
Genius 16 PT DC Sink Block (IC660BRD021 consists of IC660ERD021A or later and IC660TRD021A) (4)	IC660BRD021A IC660BRD021B	4.3 (2)
Genius 16 PT DC Sink Block (IC660BBD021 consists of IC660EBD021M or later and IC660TSD021K or later) (4)	IC660BBD021M IC660BBD021N IC660BBD021P IC660BBD021R IC660BBD021S IC660BBD021T IC660BBD021U IC660BBD021V IC660BBD021W IC660BBD021X	4.3 (2)

Component	Catalog Numbers	Latest Firmware Revision
Genius 32 PT DC Source Block (24V version) (IC660BBD024 consists of IC660EBD024N or later and IC660TBD024K or later)	IC660BBD024N IC660BBD024P IC660BBD024R IC660BBD024S IC660BBD024T IC660BBD024U IC660BBD024V IC660BBD024W	4.2 (2)
Genius 32 PT DC Source Block (24V version) (IC660BRD024 consists of IC660ERD024A or later and IC660TBD024K or later)	IC660BRD024A IC660BRD024B	4.2 (2)
Genius 32 PT DC Sink Block (IC660BBD025 consists of IC660EBD025N or later and IC660TBD025K or later)	IC660BBD025N IC660BBD025P IC660BBD025R IC660BBD025S IC660BBD025T IC660BBD025U IC660BBD025V	4.2 (2)
Genius 32 PT DC Source Block (24V version) (IC660BRD025 consists of IC660ERD025A or later and IC660TBD025K or later)	IC660BRD025A IC660BRD025B	4.2 (2)
Genius 31 PT DC Source Block (48V version) (IC660BBD040 consists of IC660EBD040A or later and IC660TBD040A or later)	IC660BBD040A	4.2
Genius RTD Block (IC660BBA021 consists of IC660EBA021K or later and IC660TBA021K or later)	IC660BBA021K IC660BBA021L IC660BBA021M IC660BBA021N	1.1
Genius Thermocouple Block (IC660BBA023 consists of IC660EBA023K or later and IC660TBA023K or later)	IC660BBA023K IC660BBA023L IC660BBA023M IC660BBA023N IC660BBA023PCA1 IC660BBA023RCC	1.4
Genius Current-source Analog Block (IC660BBA024 consists of IC660EBA024K or later and IC660TBA024K or later)	IC660BBA024K IC660BBA024L IC660BBA024M IC660BBA024N IC660BBA024P	1.8 1.9
Genius DC Current-source Analog Block (IC660BBA026 consists of IC660EBA026K or later and IC660TBA026K or later)	IC660BBA026K IC660BBA026L IC660BBA026M IC660BBA026N	1.2
Genius AC Current-source Analog Block (IC660BBA106 consists of IC660EBA106K or later and IC660TBA106K or later)	IC660BBA106K IC660BBA106L IC660BBA106M IC660BBA106N	1.2
Silvertech Termination Board, discrete inputs, source, 16 pt	GBC1-SC-DI16	(1)
Silvertech Termination Board, discrete inputs, source, 32 pt	GBC1-SC-DI32	(1)
Silvertech Termination Board, discrete outputs, source or sink, 16 pts	GBC1-CK-DO16	(1)

<b>Component</b>	<b>Catalog Numbers</b>	<b>Latest Firmware Revision</b>
Silvertch Termination Board, discrete outputs, sink, 32 pts	GBC1-SK-DO32	(1)
Silvertch Termination Board, discrete outputs, source, 32 pts	GBC1-SC-DO32	(1)
Silvertch Termination Board, analog inputs, 6 pts	GBC1-CK-AI6	(1)
Silvertch Interface Module, discrete inputs, source, 16 pts	IMC3-SC-DI16	(1)
Silvertch Interface Module, discrete inputs, source, 32 pts	IMC3-SC-DI32	(1)
Silvertch Interface Module, discrete outputs, 16 pts	IMC4-CK-DO16	(1)
Silvertch Interface Module, discrete outputs, 32 pts	IMC4-CK-DO32	(1)
Silvertch Interface Module, analog inputs, 6 pts	IMC3-CK-AI6	(1)

Component	Catalog Numbers	Software Revision
Proficy Machine Edition Logic Developer PLC	IC646MPP001D	5.00
	IC646MPP001-56	5.60
	IC647MPP001-56	5.60 + SIM 8
	IC647MPP001-57	5.70
	IC647MPP001-59	5.90 + SIM 1
IC647MPP001-60	6.00	
Logicmaster 90-70 Software, WSI	IC641SWP701R IC641SWP701S IC641SWP701T IC641SWP701U	7.02
Logicmaster 90-70 Software, Serial	IC641SWP706H IC641SWP706J IC641SWP706L IC641SWP706M	7.02
Logicmaster 90-70 Software, TCP/IP with NT/95 Drivers	IC641SWP716C IC641SWP716D	7.05
Genius Phase III Modular Redundancy Configuration Software Genius Phase III Modular Redundancy Application Software	IC641SWP715E	7.01/3.10
GMR Phase IV Configuration Software GMR Phase IV Application Software	IC641SWP745A IC641SWP745B IC641SWP745C IC641SWP745D	8.05A/4.02C 8.06/4.04 8.06/4.05 8.06/4.06
Genius Modular Redundancy User's Manual	GFK-1277C GFK-1277D GFK-1277E	

Many of the above components may be purchased in a conformal coat version. The conformal coat versions of the components are approved by TUV for use in Genius Modular Redundancy systems. The conformal coat catalog number is identified by placing the letters "CA" in front of the revision of the component. For instance, IC660BBA020CAP is the conformal coat version of IC660BBA020P.

- (1): Product does not contain firmware
- (2): Product version has changed due to ATEX labeling on product case.  
Note: ATEX approval is not in the scope of this TÜV certification.
- (3): Product version has changed due to UL Hazardous labeling on the product case.  
Note: UL Hazardous approval is not in the scope of this TÜV certification.
- (4): There is a one-to-one correlation between Genius electronics module catalog number revisions and Genius block catalog number revisions. For example, IC660EBD020Y corresponds to IC660BBD020Y.

## Revision History

Revised 11/22/04 WHL  
Revised 05/05/05 by Ancil  
Revised 8/17/05 WHL  
Revised 6/16/06 by BLM  
Revised 9/14/06 by JRG  
Revised 10/04/06 by LES  
Revised 11/02/06 by LES  
Revised 03/09/07 by TAJ  
Revised 06/21/07 by WGH  
Revised 07/06/07 by WGH  
Revised 08/20/07 by KPD  
Revised 07/07/08 by TAJ, CJH, TVS, RH  
Revised 12/03/08 by KPD  
Revised 03/11/09 by CJH  
Revised 06/04/09 by KVVR  
Revised 08/05/09 by KPD