

GP Controller DATA SHEET

Description

GP Controller (GPC) is a control unit designed for flexible and safe proportional control of many types of constructions machines.

The GPC has I/O ports that can be configured for variable control of most machines and by different operators. It is also equipped with a display for configuration and diagnostics.

Technical data

Nominal Voltage	12 and 24 V
Supply voltage, permissible range	9 to 30 V
Operating temperature	-40 to +70 °C
Storage temperature	-40 to +85 °C
Case material	Aluminium
Mass	220 g
CAN bus (external)	SVAB proprietary
CAN termination resistance	620 Ω

Current consumption

Fuse internal	10A
Electromagnetic compatibility	Acc. To ISO 13766:2006

Analog voltage inputs

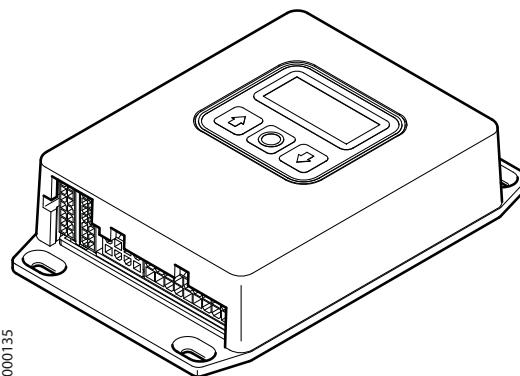
Permissible range	Full supply range
Measuring range	0 to 5 V
Input series resistance	10 kΩ
Resolution	10 Bit

Digital inputs

Permissible range	Full supply range
Input type	Configurable for both active high and active low signals.
Input series resistance	10 kΩ

Digital inputs (DIN7-8)

Input type	Optocoupler
Required current	Max 10 mA



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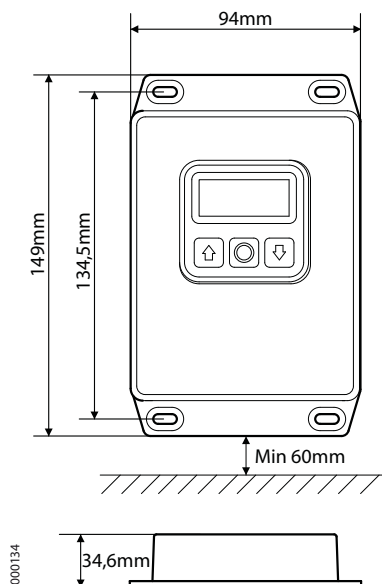
Mounting instructions

Place the unit inside the cabin on a plain surface. Make sure that the display is visible for maintenance.

Use the bonding mounting plate if the safety cage may not be drilled or screwed in. When mounting on plate the use of self-tapping mounting screws are preferred. When mounting on plastic panels it is recommended that body washers and screws are used consistently (M6).

Make sure the unit is safely placed so that risk for driver impact related injuries are eliminated. Also make sure screws of correct lengths are used so the screws don't protrude thereby causing risk of laceration.

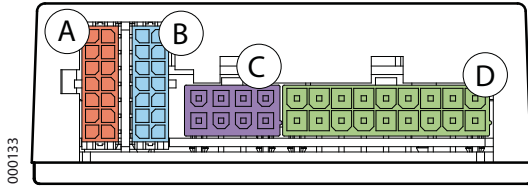
Dimensions



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This component is developed in accordance to EMC Directive - 2004/108/EG

Name	Authorized	Date	Revision no
9002_0000039_Datablad GPC.docx	JEER	2015-02-02	B



Left Input Connector (Molex Microfit 3.0 14-way) A		
1	GND	GND for inputs
2	AIN 1	Analog input 1
3	GND	GND for inputs
4	AIN 3	Analog input 3
5	DIN 1	Digital input 1
6	DIN 3	Digital input 3
7	CAN_H	CAN High
8	+5V_OUT	+5V output
9	AIN 2	Analog input 2
10	+5V_OUT	+5V output
11	AIN 4	Analog input 4
12	DIN 2	Digital input 2
13	DIN 4	Digital input 4
14	CAN_L	CAN Low
<p>Inputs DIN1 to DIN4 and AIN1 to AIN4 Analog voltage or digital inputs. When used as dual signal inputs, AIN1 and 2 forms axis 1, AIN3 and 4 forms axis 2, DIN1 and 2 forms axis 3, DIN3 and 4 forms axis 4.</p> <p>+5V outputs Current limited 5 V output for supplying sensors and potentiometers. Max. output current 350 mA (distributed on all +5V outputs). CAN bus connected units must use the same GND reference.</p>		

Right Input Connector (Molex Microfit 3.0 14-way) B		
1	GND	GND for outputs
2	AIN 5	Analog input 5
3	GND	GND for outputs
4	AIN 7	Analog input 7
5	DIN 5	Digital input 5
6	DIN 7	Digital input 7
7	CAN_H	CAN High
8	+5V_OUT	+5V output
9	AIN 6	Analog input 6
10	+5V_OUT	+5V output
11	AIN 8	Analog input 8
12	DIN 6	Digital input 6
13	DIN 8	Digital input 8
14	CAN_L	CAN Low
<p>Inputs DIN5 to DIN6 and AIN5 to AIN8 Analog voltage or digital inputs. When used as dual signal inputs, AIN5 and 6 forms axis 5, AIN7 and 8 forms axis 6, DIN5 and 6 forms axis 7.</p> <p>Inputs DIN7 and DIN8 Digital inputs, opto isolated.</p> <p>+5V outputs Current limited 5 V output for supplying sensors and potentiometers. Max. output current 350 mA (distributed on all +5V outputs). CAN bus connected units must use the same GND reference.</p>		

Supply/Valve Connector (Molex Minifit Jr. 8-way) C		
1	GND	GND for outputs
2	GND	GND for outputs
3	GND	Supply GND
4	GND	Supply GND
5	OUT 5B	Output 5B
6	OUT 5A	Output 5A
7	MAIN_V+	Supply voltage
8	MAIN_V+	Supply voltage
<p>Output 1 to 5 Current regulated high side outputs, max. current 2,75 A. Designed for proportional control of inductive loads. A and B ports used for bidirectional valves. Protected for over current conditions.</p> <p>Output 6 to 9 High side switch, max. current 2,5 A. Designed for switching inductive loads. Protected for over current conditions. The voltage supply circuit should be divided equally on both connections.</p>		

Valve Connector (Molex Minifit Jr. 18-way) D		
1	OUT 9	Output 9
2	OUT 8	Output 8
3	DX_OUT	Digital output X
4	DX_IN	Digital input X
5	GND	GND for outputs
6	GND	GND for outputs
7	GND	GND for outputs
8	GND	GND for outputs
9	OUT 1A	Output 1A
10	OUT 7	Output 7
11	OUT 6	Output 8
12	OUT 4B	Output 4B
13	OUT 4A	Output 4A
14	OUT 3B	Output 3B
15	OUT 3A	Output 3A
16	OUT 2B	Output 2B
17	OUT 2A	Output 2A
18	OUT 1B	Output 1B
<p>Output 1 to 5 Current regulated high side outputs, max. current 2,75 A. Designed for proportional control of inductive loads. A and B ports used for bidirectional valves. Protected for over current conditions.</p> <p>Output 6 to 9 High side switch, max. current 2,5 A. Designed for switching inductive loads. Protected for over current conditions.</p>		