Process Controller with Setpoint Programmer 1/16 DIN - 48 x 48 Linea M5

Quick Guide • QG M5 - 1/11.09 • Cod. J30-478-1AM5 QG

ASCON TECNOLOGIC

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Model Code

The product code indicates the specific hardware configuration of the instrument, that can be modified by specialized engineers only.

	Line	Basic				Accessories			
Model:	M	5	A	1	C	D	-	E	9	0	0

Line	M	5

Power supply	A
100...240Vac (-15...+10%)	3
24Vac (-25...+12%) or 24Vdc (-15....+25%)	5

Serial Comms.	Options		C	D
Not fitted	None [2]		0	0
	Aux. input	Feedback potentiometer [2]	0	1
		Remote Setpoint [1]	0	2
		Current Transformer	0	3
	Aux. output	SSR drive/analogue	0	4
		SSR drive/analogue + Rem. SP [1][2]	0	5
RS485 Modbus/ Jbus protocol	None [2]		5	0
	Aux. input	Feedback potentiometer [2]	5	1
		Remote Setpoint [1]	5	2
		Current Transformer	5	3
	SSR drive/analogue auxiliary output		5	4

Setpoint Programmer	E
Not fitted	0
Present	4

[1] Not available with Setpoint programmer installed (E = 1);
[2] Second digital input (IL2) not available.

Declaration of conformity and manual retrival

Class II instrument, rear panel mounting. This controller has been designed with compliance to the European Directives.
Consult Declaration of Conformity for further details on Directives and Standards used for Compliance. Declaration of Conformity can be found in the file **ASCON_DC_G2.zip**.
All information about the controller usage are inserted in the user manual (**ASCON_MIU_M5_EN.zip**).
The Declaration of Conformity and the manual of the controller can be downloaded (free of charge) from the web-site:
www.ascontecnologic.com
Once connected to the web-site, click on the **ascon** logo.
Select: **Download/Documentation**, and fill the table with:

- Typology: **Manual**; Type: **All**; Language: **All**; Code: **GAMMA2**

Click: **SEARCH** and

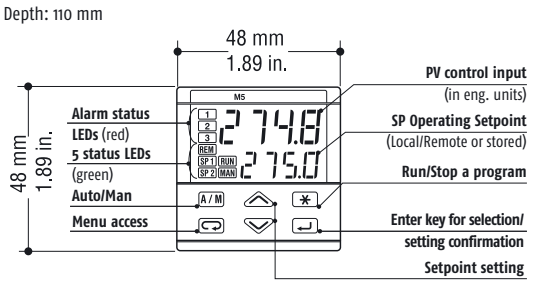
- Download the file: **ASCON_DC_G2.zip** (Declaration of Conformity of gamma2 controllers)
  ASCON_MIU_M5_EN.zip (M5 manual)

⚠ Warning!

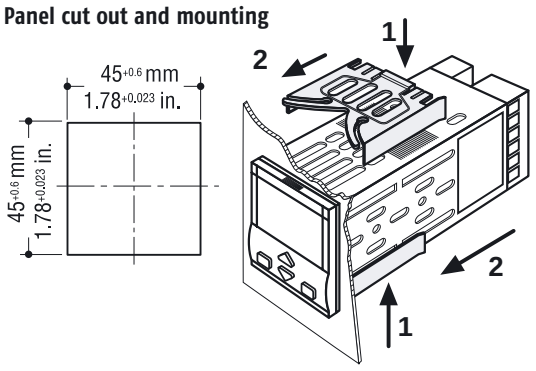
- Whenever a failure or a malfunction of the device may cause dangerous situations for persons, things or animals, please remember that the plant must be equipped with additional devices which will guarantee safety.
- We warrant that the products will be free from defects in material and workmanship for 18 months from the date of delivery. Products and components that are subject to wear due to conditions of use, service life, and misuse are not covered by this warranty.

Description and dimensions

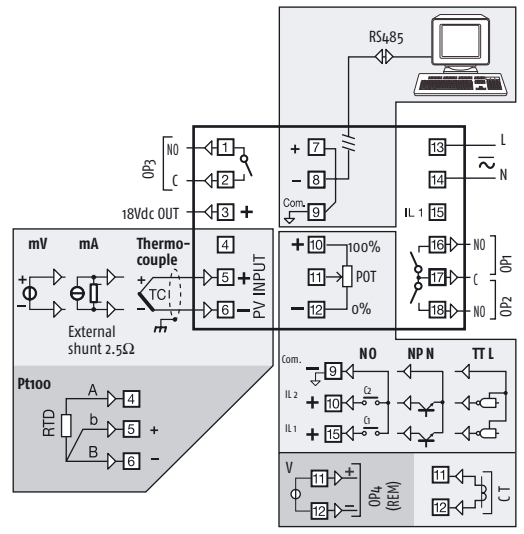
Depth: 110 mm



Panel cut out and mounting



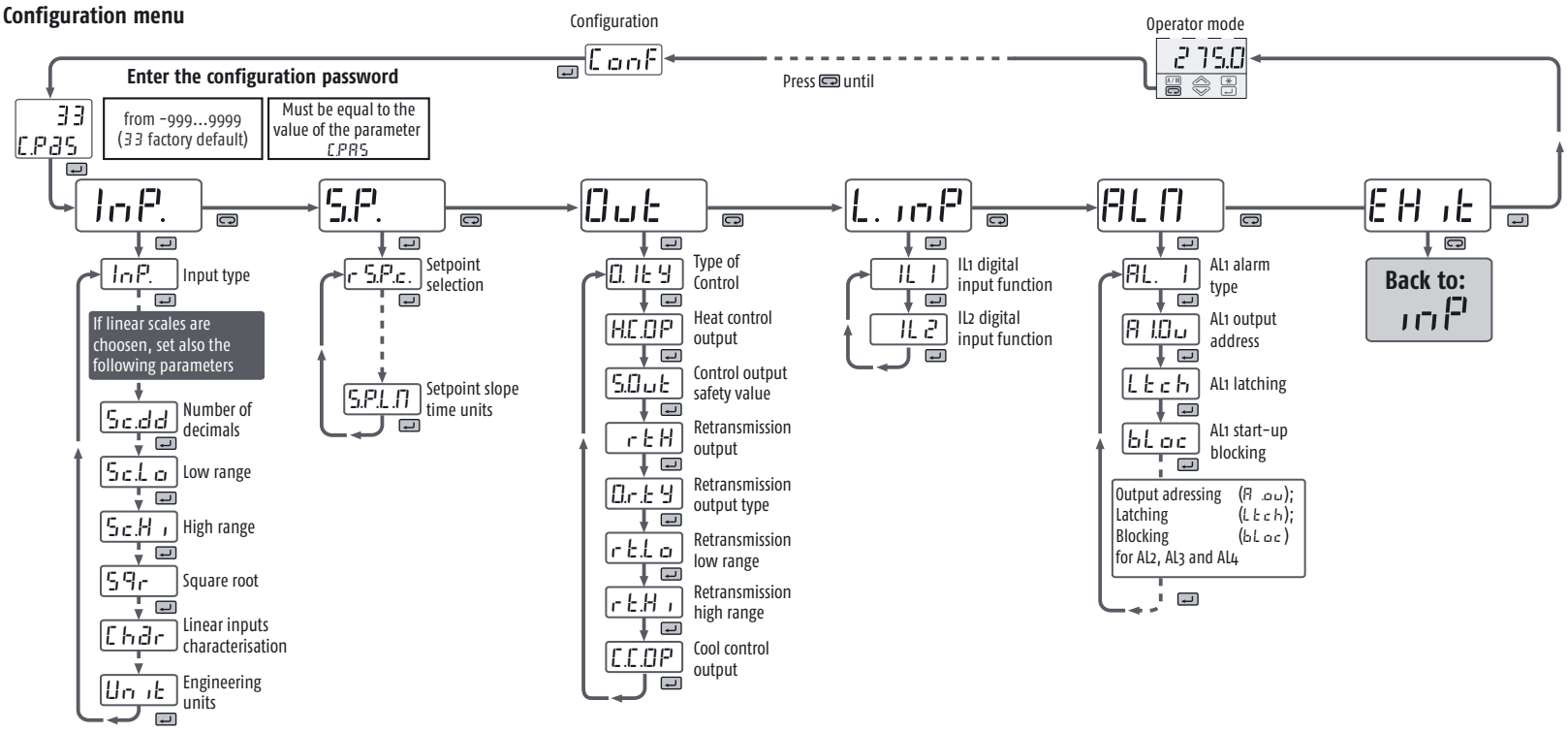
Electrical connections



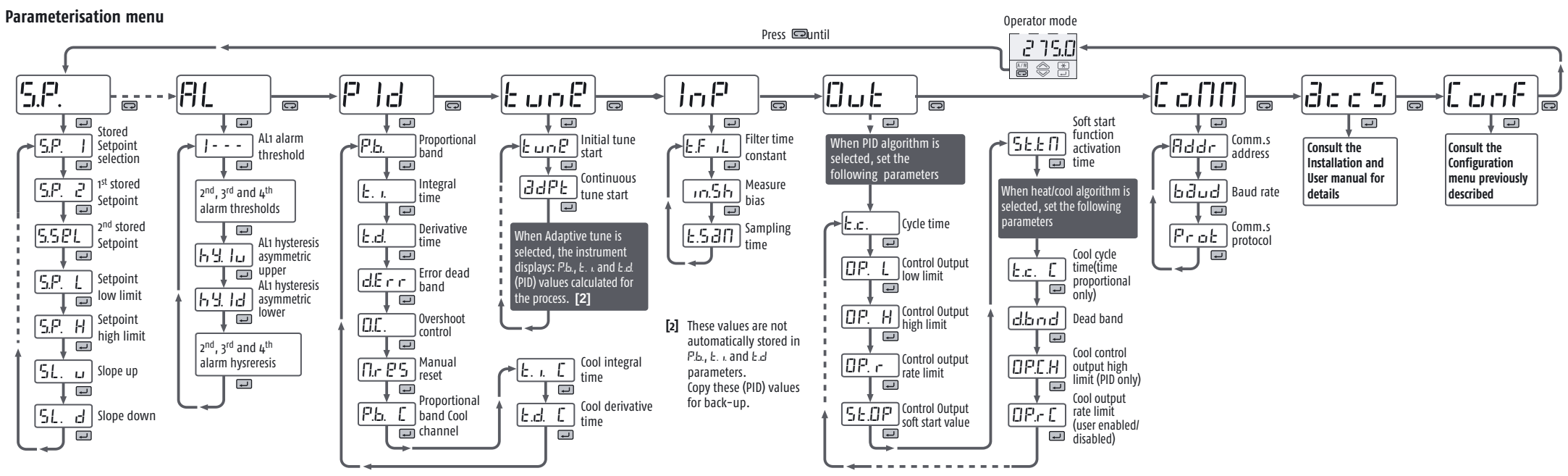
Terminals

Pin connector	Fork-shape	Stripped wire
Ø 1.4 mm - 0.055 in. max.	AMP165004 Ø 5.5 mm - 0.21 in.	L 5.5 mm - 0.21 in.

Configuration menu



Parameterisation menu



Parameter list

The parameters pointed out with grey background are those necessary to configure the options and are NOT shown in the menus. All the parameters are fully described and explained in the user manual of the controller.

Configuration

Code	Parameter Name	Value Default	Value User
InP.	Input type selection	0 - 10	
Sc.dd	Number of decimals (0... 3)	0	
Sc.Lo	Low range	0	
Sc.Hi	High range	9999	
Sqr	Square root (0 = OFF, 1 = ON)	NO	
CHAr	Linear input characterization	NO	
Unit	Engineering units	NONE	
rSPC	Setpoint selection	LOC	
rS.In	Remote Setpoint input	4 - 20	
SPtM	Time units and Setpoint slope	P.SEC	
O.ty	Control type	PID	
H.COP	Control output (Heat)	OFF	
S.Out	Control output safety value	OFF	
rtH	Retransmitted output selection	none	
Or.tY	Retransmission output	4-20	
rt.Lo	Retransmission low range	0	
rt.H I	Retransmission high range	9999	
C.CoP	Cool control output	OFF	
IL_	ILn digital input function	OFF	

Code	Parameter Name	Value Default	Value User
AL._	ALn alarm type	OFF	
A.Ou	ALn addressing	OP1	
Ltch	ALn latching	no	
bLoc	ALn start-up disabling	no	

Parameterisation

Code	Parameter Name	Value Default	Value User
L_r	Setpoint selection	NONE	
S.P._	nth stored Setpoint	0	
S.SEL	Stored setpoint selection		
S.P. L	Setpoint low limit	PV.LO	
S.P. H	Setpoint high limit	PV.HI	
SL. u	Setpoint ramp up	OFF	
SL. d	Setpoint ramp down	OFF	
rt io	Ratio remote Setpoint	1.00	
b iAS	Remote Setpoint Bias	0	
Program parameters (consult the Installation and user manual for details)			
1 ---	AL1 alarm threshold	0	

Code	Parameter Name	Value Default	Value User
2 ---	AL2 alarm threshold	0	
3 ---	AL3 alarm threshold	0	
4 ---	AL4 alarm threshold	0	
hY.u	ALn alarm hysteresis Up	1	
hY.d	ALn alarm hysteresis Down	1	
Pb.	Proportional band	5.0	
t.i.	Integral time	60	
t.d.	Derivative time	12.0	
dErr	Error Dead Band	OFF	
O.C.	Overshoot Control	1.00	
M.rES	Manual Reset	50.0	
Pb. C	Cool proportional band	5.0	
t.i. C	Cool integral time	60	
t.d. C	Cool derivative time	12.0	
tunE	Start/Stop One shot tuning	NO	
AdPt	Start/Stop Adaptive tuning	NO	
Pb.	Calculated Proportional band		
t.i.	TCalculated Integral time		
t.d.	Calculated derivative time		

Code	Parameter Name	Value Default	Value User
t.F iL	Input filter	OFF	
in.Sh	Input shift	OFF	
t.SAn	Sampling time	0.1	
OPhY	Output Hysteresis	1	
t.c.	Cycle time	10.0	
OP. L	Control ouput low limit	0.0	
OP. H	Control output high limit	100.0	
OPr	Control output maximum speed	OFF	
St.OP	Soft start output high value	OFF	
St.tM	Soft start time	10	
tc C	Cool cycle time	10.0	
dbnd	Heat/Cool Dead band	0.5	
OPC.H	Cool output maximum value	100.0	
OPrC	Cool output maximum speed	OFF	
MotM	Servomotor travel time	60	
MuhY	Output minimum step Servomotor	0.5	
Addr	Communication address	1	
baud	Baud rate	9600	
Prot	Communication protocol	JBUS	