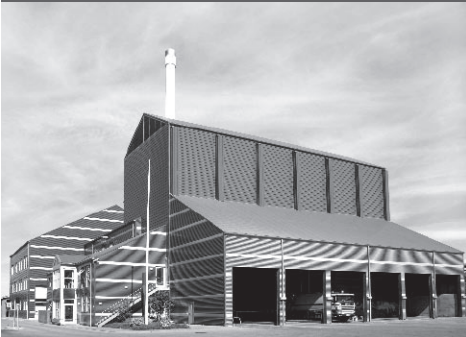




-power in control



DATA SHEET



IOM 200 analogue interface for AGC 200

- CAN interface to AGC 200 series
- TTL interface to PC
- LED indicators for unit and CANbus status
- GOV/AVR outputs selectable for DC current or DC voltage



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1. General Information

1.1. Application and overview.....	3
1.1.1. Application.....	3
1.1.2. Overview.....	3
1.1.3. Status LEDs.....	3
1.1.4. DIP switches.....	4
1.1.5. PC interface.....	4
1.1.6. CANbus interface.....	4
1.1.7. Terminals.....	5

2. Technical Information

2.1. Connections.....	6
2.1.1. CANbus connections.....	6
2.2. Technical specifications.....	7
2.2.1. Available variants.....	7
2.2.2. Specifications.....	8
2.2.3. Unit dimensions in mm (inches).....	9

3. Ordering Information

3.1. Order specifications and disclaimer.....	10
3.1.1. Order specifications.....	10
3.1.2. Disclaimer.....	10

1. General Information

1.1 Application and overview

1.1.1 Application

The IOM 200 series is intended to be used as an interface between the AGC 200 product family and governors with an analogue interface.

It can be used as an interface to other controllers if analogue load sharing lines are required, e.g. when adding generators to an existing system.

1.1.2 Overview

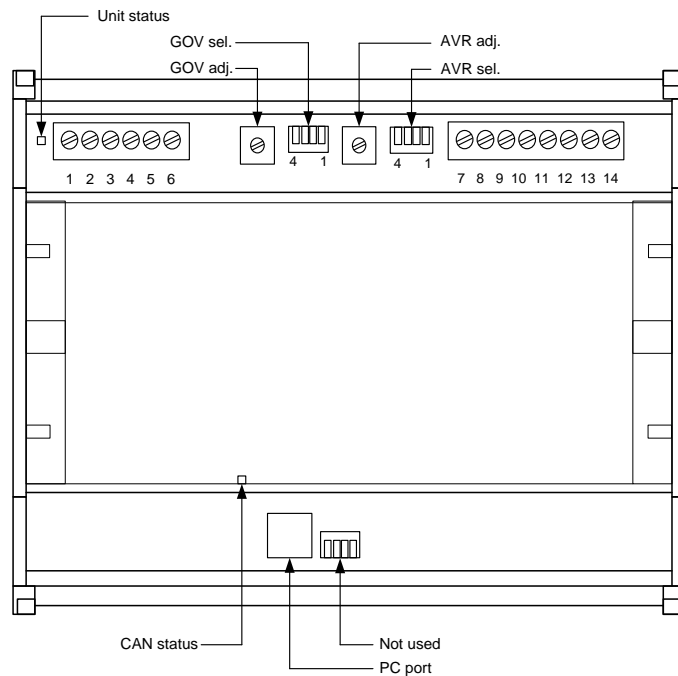
IOM 220

- CANbus interface
- TTL interface to PC
- Analogue governor interface
 - 0-20 mA governor signal
 - +/- 25 mA governor signal
 - 0-10V DC governor signal
 - +/- 12V DC governor signal
- Analogue AVR interface
 - 0-20 mA AVR signal
 - +/- 25 mA AVR signal
 - 0-10V DC AVR signal
 - +/- 12V DC AVR signal

IOM 230

Same as IOM 220 with additional:

- Analogue load sharing and VAR load sharing Interface (-5 ... 0 ... +5V DC)



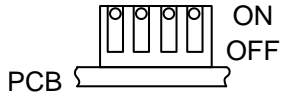
1.1.3 Status LEDs

The status LEDs are 2-coloured


Green	System OK
Red	Fail

1.1.4 DIP switches

Output selections for governor/AVR



Output	SW 1	SW 2	SW 3	SW 4
+/-25 mA	ON	OFF	NOT USED	OFF
0-20 mA	OFF	ON		OFF
+/-12V DC	ON	OFF		ON
0-10V DC	OFF	ON		ON

 The V DC signal levels can adjusted via the potentiometers

 SW 1 and SW 2 cannot have the same position

 Output resolution is 1024 steps, regardless of selected range

1.1.5 PC interface

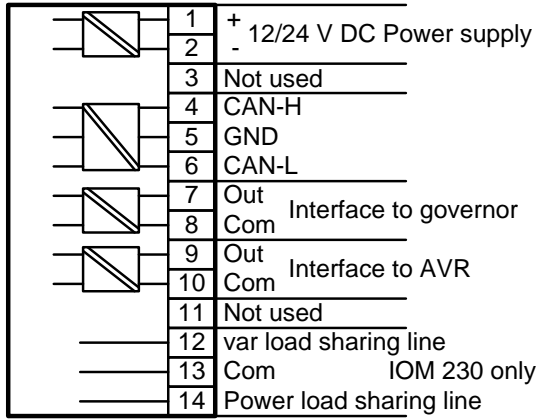
The TTL PC interface is intended for connection via option J5 (RS232 to TTL converter cable) and can be used for downloading new firmware updates only.

1.1.6 CANbus interface

The CANbus interface to the AGC 200 has automatic address selection and can be connected to the AGC 200 CAN line A, B or C.

1.1.7 Terminals

IOM 200



Terminal	Description	Comment
1	+12/24V DC	Power supply
2	0V DC	
3	Not used	
4	CAN-H	CANbus interface to AGC 200
5	CAN-GND	
6	CAN-L	
7	GOV out	Governor analogue interface
8	GOV com	
9	AVR out	AVR analogue interface (IOM 220 and 230)
10	AVR com	
11	Not used	
12	VAr share out	Load sharing lines (IOM 230)
13	Common	
14	P share out	

2. Technical Information

2.1 Connections

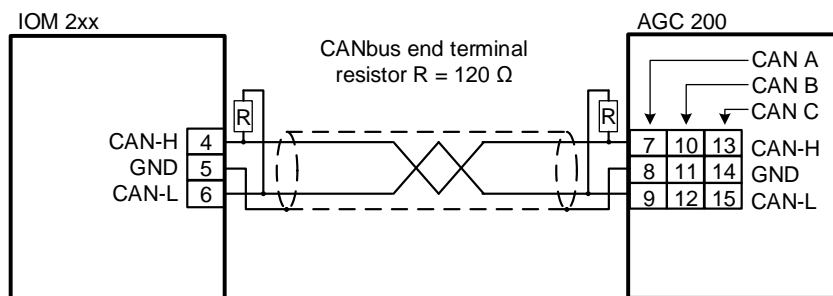
2.1.1 CANbus connections

The CANbus connection can be "point-to-point" between an IOM 200 module and an AGC 200, or "multidrop" between an AGC 200, IOM 200 and an engine controller.

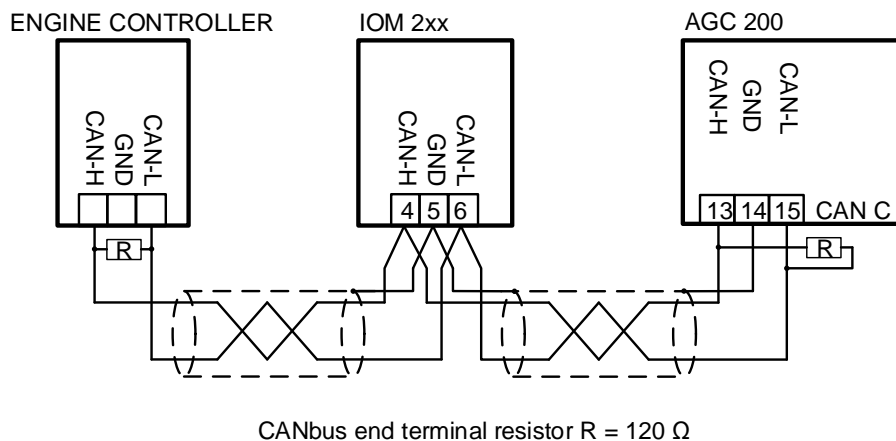


Please refer to the application notes "IOM 200 analogue interface for AGC 200", document no. 4189340614.

Point-to-point



Multidrop



In both cases, the cable shield must NOT be connected to ground, only to the GND terminal of the DEIF units.



In multidrop, the cable shield must NOT be connected to the engine controller unless it is absolutely certain that the engine controller CANbus connection is galvanically isolated from the rest of the controller.

2.2 Technical specifications

2.2.1 Available variants

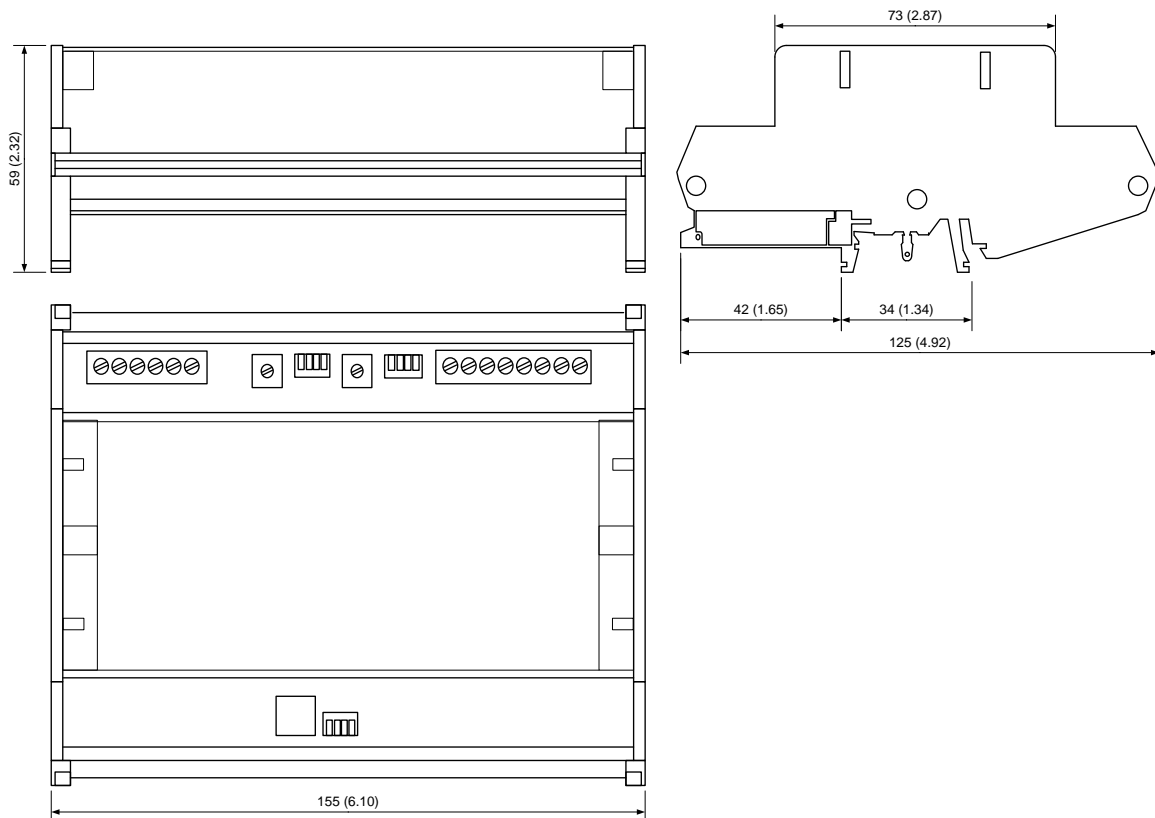
Type	Variant	Description	Item no.	Note
IOM 200	01	IOM 220	2912890200-01	AVR and GOV output
IOM 200	02	IOM 230	2912890200-02	AVR and GOV output loadshare lines

2.2.2 Specifications

Operating temperature	-40...70°C (-40...158°F) UL/cUL Listed: Max. surrounding air temperature: 55°C (131°F)
Storage temperature	-40...70°C (-40...158°F)
Climate	97% RH to IEC 60068-2-30
Aux. supply	8.5-36V DC continuously (UL/cUL: 8.5...32.7V DC) Max. 4 W consumption The aux. supply input is to be protected by a 2 A slow-blow fuse (UL/cUL listed: AWG 24)
Mounting	DIN rail
Safety	To EN 61010-1, installation category (overvoltage category) III, 300V, pollution degree 2
Protection	IP20/NEMA type 1 to IEC/EN 60529
EMC/CE	To EN 61000-6-1/2/3/4 IEC 60255-26 IEC 60533 power distr. zone IACS UR E10 power distr. zone
Vibration	3...13.2 Hz: 2mm _{pp} 13.2...100 Hz: 0.7 g To IEC 60068-2-6 To IACS UR E10 10...60 Hz: 0.15mm _{pp} 60...150 Hz: 1 g To IEC 60255-21-1 Response (class 2) 10..150 Hz: 2 g To IEC 60255-21-1 Endurance (class 2)
Shock	10 g, 11 msec, half sine To IEC 60255-21-2 Response (class 2) 30 g, 11 msec, half sine To IEC 60255-21-2 Endurance (class 2) 50 g, 11 msec, half sine To IEC 60068-2-27
Bump	20 g, 16 msec, half sine to IEC 60255-21-2 (class 2)
Material	All plastic materials are self-extinguishing according to UL 96 (V1)
Connections	3.5 mm ² (13 AWG) multi-stranded service port: TTL, RJ 12

Tightening torque (min)	0.5 Nm (5-7 lb-in)
Approvals	UL/cUL Listed to UL508 UL/cUL Recognized to UL2200
UL markings	Wiring: Use 60/75°C copper conductors only
Mounting	For DIN rail mounting inside a cabinet Main disconnect must be provided by installer Installation: To be installed in accordance with the NEC (US) or the CEC (Canada)
Weight	0.3 kg (0.7 lbs)

2.2.3 Unit dimensions in mm (inches)



3. Ordering Information

3.1 Order specifications and disclaimer

3.1.1 Order specifications

Variants:

Mandatory information		
Item no.	Type	Variant no.

Example:

Mandatory information		
Item no.	Type	Variant no.
2912890200-01	IOM 220	01

3.1.2 Disclaimer

DEIF A/S reserves the right to change any of the contents of this document without prior notice.