

# Gooch & Housego

Preliminary  
Datasheet

## AOM Driver A35-Series

RF Drivers for Acousto-Optic Modulators

### Key Features:

- ◆ Frequency range 80 to 350 MHz
- ◆ RF output power 5 Watt
- ◆ Optimized for grey-scale applications
- ◆ RF on/off ratio > 65 dB
- ◆ Constant output power design: maximum fluctuation  $\pm 5\%$  between cold and warm state
- ◆ Modulation frequency up to 50 MHz
- ◆ Conductive cooling through base plate
- ◆ Compact housing, fully shielded (EMC)

### Applications:

- ◆ Fast modulation components for extra cavity applications, e. g. RGB systems

### Technical Specifications

Supply Voltage	24 V DC
Carrier Frequency	nominal value $\pm 30$ ppm available frequency range: 80 ... 350 MHz standard frequencies: see section "Variants List"
max. RF Output Power	5 W @ 50 $\Omega$ , adjustable from 1 to 5 W by potentiometer
Analogue Modulation	0 .. 100% of max. RF output power input voltage and impedance: see section "Variants List"
Digital Modulation	TTL levels input impedance and logic: see section "Variants List"
Modulation Frequency (digital and analogue)	< ( $\frac{1}{3}$ carrier frequency) and < 50 MHz
RF On/Off Ratio	> 65 dB
RF Rise Time (10 ... 90%)	< 15 ns @ 50 $\Omega$
RF Fall Time (90 ... 10%)	< 15 ns @ 50 $\Omega$
Housing	Aluminium, fully shielded, conductive surface passivation

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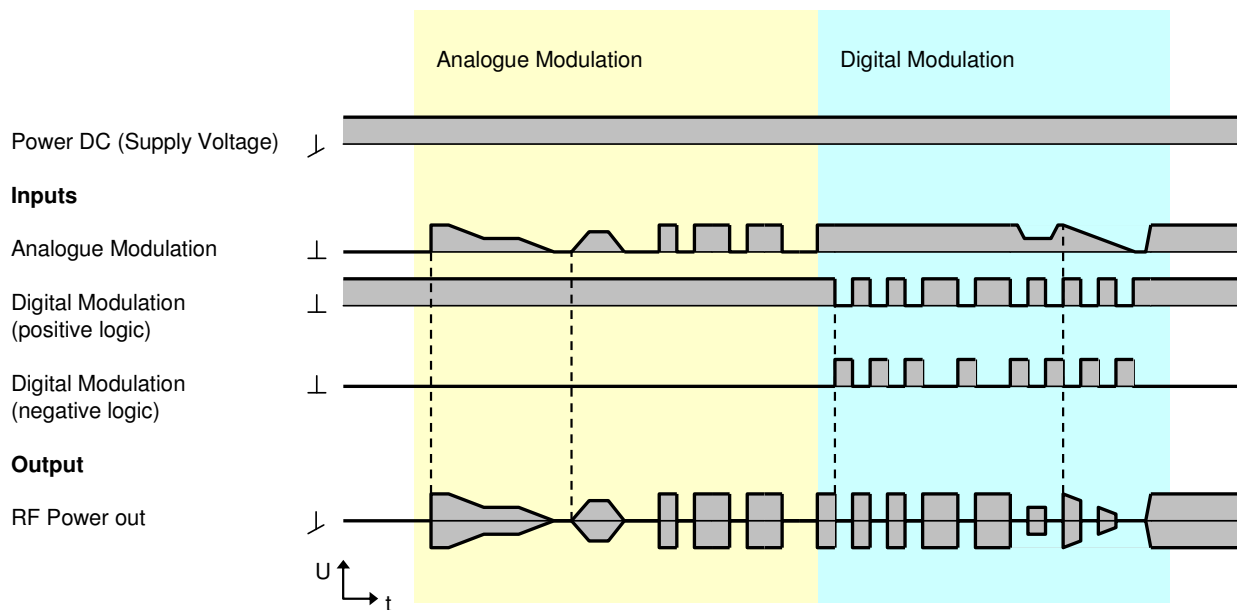
## Variants List / Ordering Codes

**A35** □□□ - □□

Frequency	Version Number <sup>1)</sup>	Base Plate <sup>2)</sup>	Analogue Modulation Input	Digital Modulation Input <sup>4)</sup>
80	00	165 x 70 mm "compatible" <sup>3)</sup>	0...1V / 50Ω → 0...100% RF max. power n.c. → RF off	TTL pos. logic / 4,7kΩ (pull-up resistor) n.c. → RF on
100				
110	02	see above	0...10V / 600Ω → 0...100% RF max. power n.c. → RF off	see above
150				
200	10	120 x 70 mm "standard"	0...1V / 50Ω → 0...100% RF max. power n.c. → RF off	see above
250				
300	12	see above	0...10V / 600Ω → 0...100% RF max. power n.c. → RF off	see above
350				

- 1) Further configurations on request.
- 2) See section " housings".
- 3) The base plate dimensions (size, holes) are equal with legacy drivers A33\_ and A34\_.
- 4) See section "Operation Scheme of Analogue and Digital Modulation".

## Operation Scheme of Analogue and Digital Modulation



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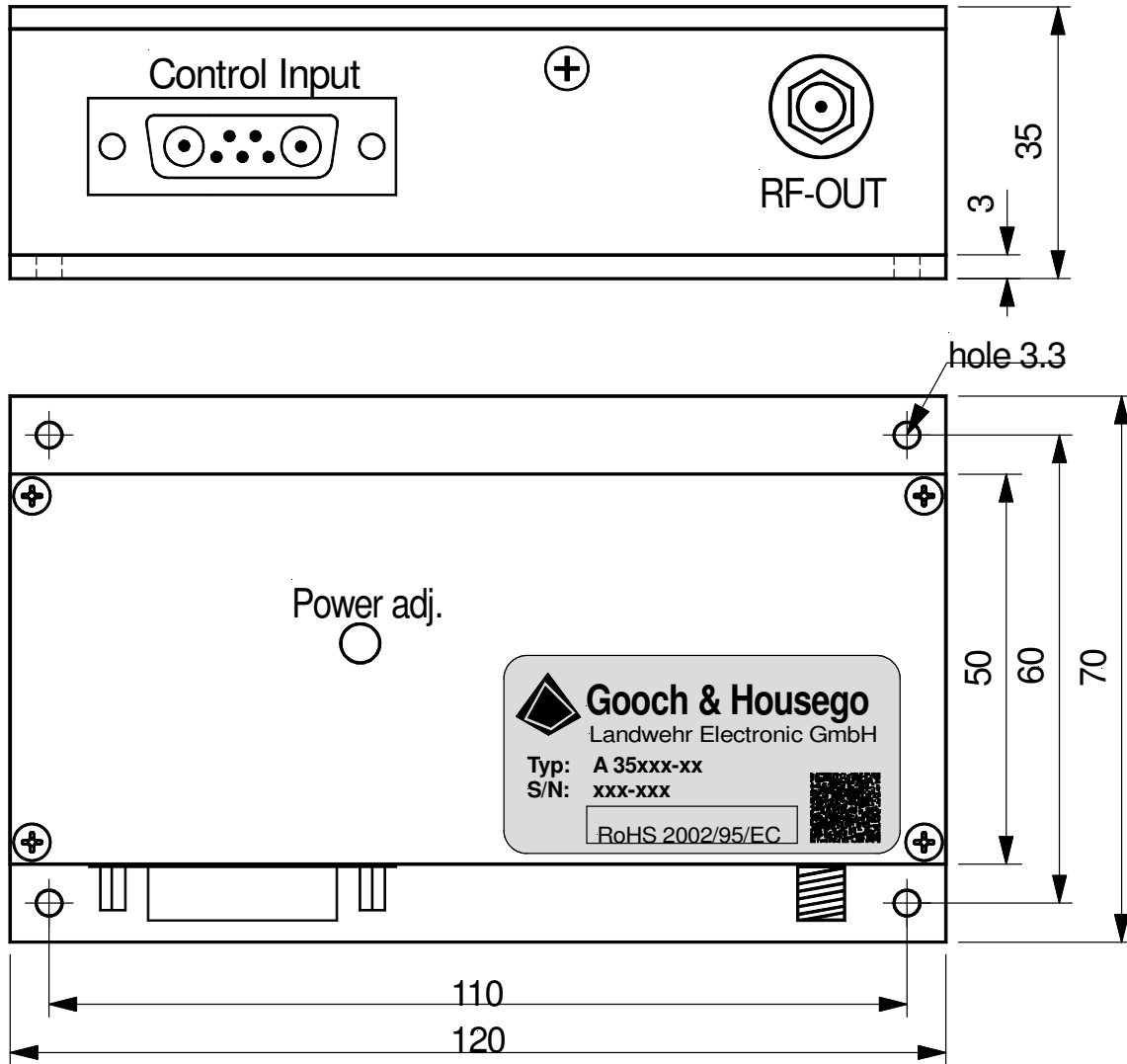
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## Housings

*“Standard” Housing, base plate 120 x 70 mm*



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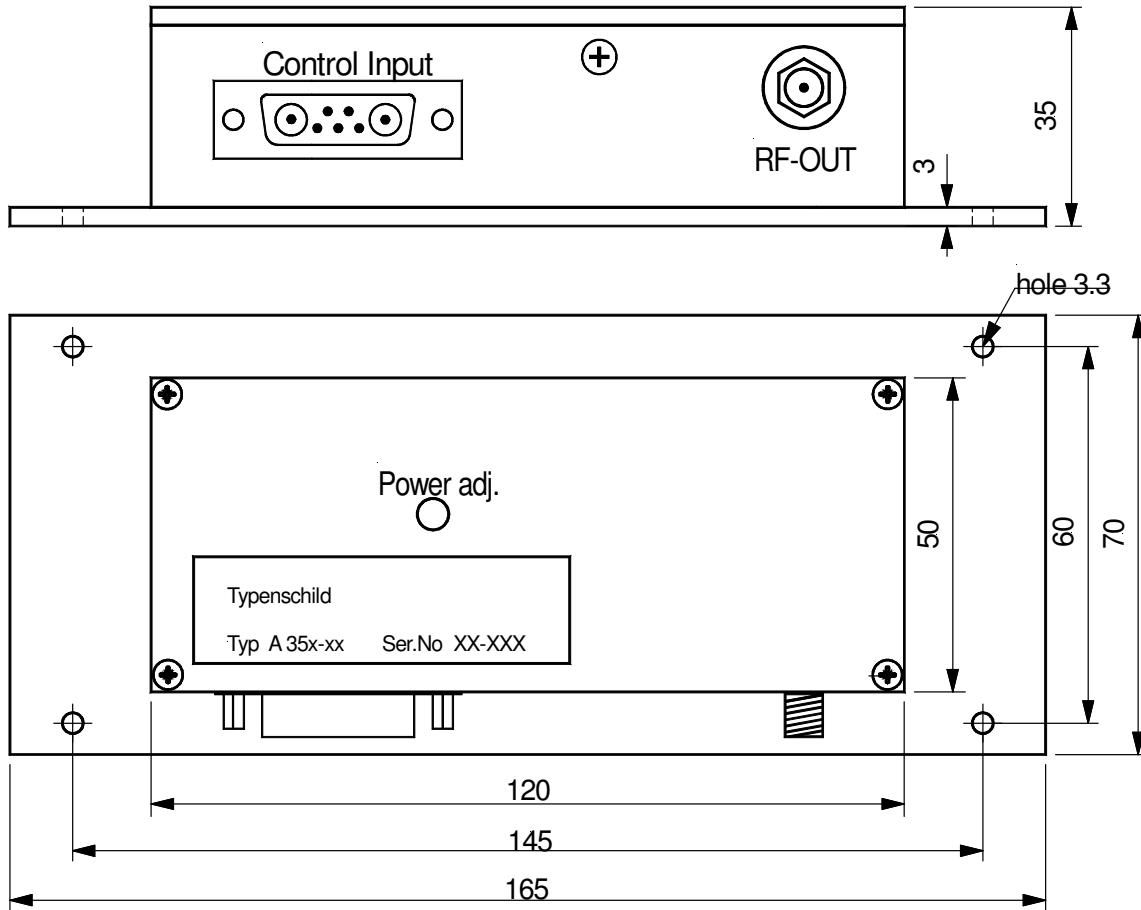
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**“Compatible” Housing, base plate 165 x 70 mm**

(size and holes are compatible with legacy drivers A3\_)



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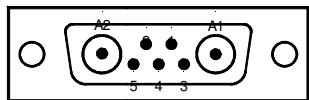
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## Connectors

### Control Connector



Pin 1 – GND  
Pin 2 – GND  
Pin 3 – +24VDC  
Pin 4 – N.C.  
Pin 5 – +24VDC

A1 – Analogue Modulation  
A2 – Digitale Modulation

Part list for appropriate plug:

Item	Qty.	Description	Part-No.	Manufacturer
1	1	Mixed contact Connector Sub-D 7W2	DAM-7W2P-K87	ITT Cannon
			FM7W2P-K120	FCT
2	2	Coaxial terminal pin, 50R, straight, for RG 178B/U coax cable	DM 53740-5000	ITT Cannon
			FMX005P102	FCT
3	1	Housing, shielded shell	DA 121073-150	ITT Cannon
			FKC2GA	FCT
4	2	Locking screw	250-8501-013	ITT Cannon
			FRS1/5-K190	FCT
5	2	RF-Coax cable RG178B/U		
6	1	Wire, H05V-K, 0.5mm <sup>2</sup> , black (GND)		
7	1	Wire, H05V-K, 0.5mm <sup>2</sup> , red (+24VDC)		

### RF Output Connector

SMA jack