Load cell amplifier
Signal converter

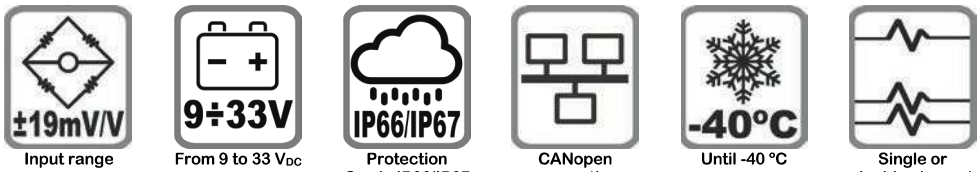
ADS-200 MkII Series

- Conversion of differential or amplified signals into voltage/current amplified or CAN bus signals
- For 12/24 V_{DC} power sources
- Double channel version available
- Protected against over tensions and polarity inversion
- Waterproof, plastic, compact body (40% fiber glass reinforced PBT)
- Electrical connection with M12x1 connectors

On request:
- CAN bus termination
- Customizable digital inputs

Typical fields of application: industrial automation and generic mobile machines.

Note: the user/installer is responsible for evaluating the values and, thus, the safety of the application



Technical data

Power supply	9 to 33 V_{DC}	Protected against polarity inversion
Analog inputs	two 4 to 20 mA or two 0.5 to 4.5 V_{DC} or one differential (mV)	Protected against short circuits and operator error (1)
Analog inputs resolution	4÷20 mA o 0.5÷4.5: 12 bit differentials: 16 bit, Gain=128	-
Differential input range	-19 mV/V ≤ d ≤ +19 mV/V @ common mode 2.5 Vdc	-
Input resistor range (strain gauge)	350 | 175 | 87 Ω ≤ Ri ≤ 10000 Ω	With V_{CC} max @ 33 | 30 | 15 V_{DC} (2)
Digital inputs	2	On request
Digital outputs	none	-
Analog outputs	one 4 to 20 mA or 0.5 to 4.5 V_{DC}	1.0÷9.0 V_{DC} on request
CANbus connection	1	
RS-232 connction	1	For diagnostic use only
Operating temperature	from -40 to +70 °C	-
Maximum weight	0.40 kg	-
Housing material	PBT + 40% glass fiber	-
Coating	two components polyurethane	-
Standard protection grade	IP66 / IP67	-
CE Conformity	EMC Directive: 2014/30/EU	-
EMC: Immunity | Emission	EN 61000-6-2, EN61000-6-3	Heavy industrial
Vibration resistance: Sinus	EN 60068-2-6: 5 g, 10 to 150 Hz	-
Schock resistance: Shock	EN 60068-2-27: 30 g, 6 ms	-
MTTFd	EN 13849-1: ≥ 100 years	-

(1) Maximum current equal to 35 mA with 200 Ω shunt and for 4 to 20 mA inputs

(2) Special version with input resistance equal to 87 Ω and independent from input voltage on request

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Load cell amplifier
Signal converter

ADS-200 MkII Series

Ordering Code

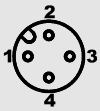
ADS-200 MKII	D	2.0	MC3	0	99	M3A	N	NO	B	NOT
Type	Channels	Analog input	Input connection	Digital input	Electrical output	Output connection	CAN termination	Diagnostic	Box	Custom configurations

Channels	S	Single channel
	D	Double channel
Analog input	x . y	Maximum input signal (mV/V)
Input connection	c a 1	Electrical wiring harness code (see “Input connections” on the right)
Digital input	0	None in standard configurations
Electrical output	4 _	Current output: 4 to 20 mA (44 if double)
	7 _	CAN output: CAN Open (77 if double)
	9 _	Voltage output: 0.5÷4.5 V_{DC}. V_{IN}=9÷33 V_{DC} (99 if double)
Output connection	c a 2	Electrical wiring harness code (see “Electrical connections” on the bottom)
CAN termination	N	Without internal CAN bus termination
Diagnostic	P C	RS232 connection
	N O	None
Box	B	With standard box
Custom configurations	N O T	Standard

Custom configurations are available on request.

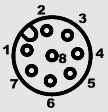
Electrical connections: input

M12 receptacle
Code: **MC4** single channel
Code: **MC3** double channel



1: V_{IN}=+5 V_{DC}
2: Negative for transducers
3: Signal+ 4: signal -

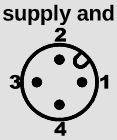
M12 receptacle
Code: **MC9**
double channel



1: V_{IN1}=+5 V_{DC}
2: Negative for transducers 1
3: Signal1+ 4: Signal1 -
5: V_{IN2}=+5 V_{DC}
6: Negative for transducers 2
7: Signal2+ 8: Signal2 –

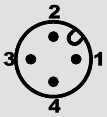
Electrical connections: power supply and output

M12 plug
Current output (4 to 20 mA)
Code: **M75** single channel
Code: **M7A** double channel



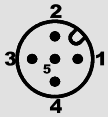
1: V_{IN}=9 to 33 V_{DC}
2: Signal 1
3: Negative power supply
4: Signal 2 (M7A only)

M12 plug
Voltage output (0.5 to 4.5 V_{DC})
Code: **M30** single channel
Code: **M3A** double channel



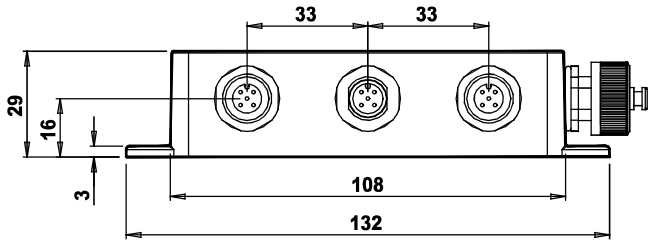
1: V_{IN}=9 to 33 V_{DC}
2: Signal 1
3: Negative power supply
4: Signal 2 (M3A only)

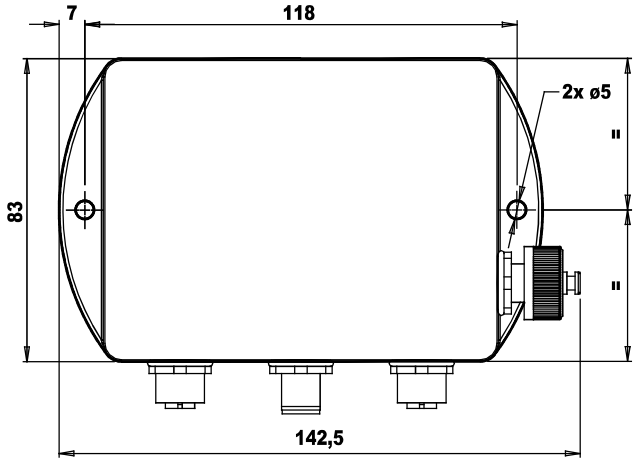
M12 plug
CAN Open
Code: **M05** single or double channel

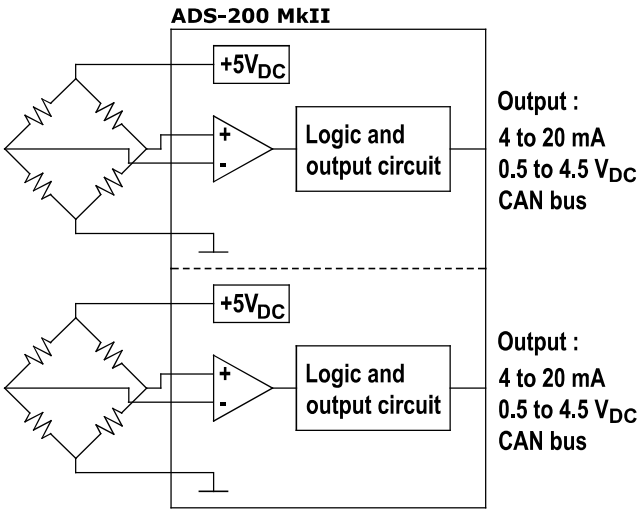


1: Cable shield
2: V_{IN}=9 to 33 V_{DC}
3: Negative power supply
4: CH
5: CL

Dimensions [mm]







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Accessories

Type	Description	Code	Notes
Counterpart Connector	M12 plug connector: loose connector with 4pin, screw terminals.	7.003.053	input connection
Counterpart Connector	M12 plug connector: loose connector with 8pin, screw terminals.	7.003.060	input connection
Counterpart Connector	M12 receptacle connector: loose connector with 4pin, screw terminals.	7.003.045	output connection
Extension cable	Length 5000mm, multipolar cable for dynamic installations, 4 conductors (brown, grey, black, yellow/green) sections 0.5mm², external grey jacket with excellent resistance to abrasive action, ordinary industrial oils and chemical agents. M12 4pin receptacle connector.	7.180.431	output connection
Extension cable	Length 10000mm, multipolar cable for dynamic installations, 4 conductors (brown, grey, black, yellow/green) sections 0.5mm², external grey jacket with excellent resistance to abrasive action, ordinary industrial oils and chemical agents. M12 4pin receptacle connector.	7.180.433	output connection
CAN Counterpart Connector	M12 receptacle connector: loose connector with 5pin, screw terminals.	7.003.059	output connection
CAN Extension cable	Length 5000mm, multipolar cable for dynamic installations, 2x2xAWG22 conductors (brown, white, yellow, green) , external purple jacket with excellent resistance to abrasive action, ordinary industrial oils, chemical agents and UV. M12 5pin receptacle connector.	7.180.469	output connection
CAN Extension cable	Length 10000mm, multipolar cable for dynamic installations, 2x2xAWG22 conductors (brown, white, yellow, green), external purple jacket with excellent resistance to abrasive action, ordinary industrial oils, chemical agents and UV. M12 5pin receptacle connector.	7.180.409	output connection
CAN Extension cable	Length 15000mm, multipolar cable for dynamic installations, 2x2xAWG22 conductors (brown, white, yellow, green), external purple jacket with excellent resistance to abrasive action, ordinary industrial oils, chemical agents and UV. M12 5pin receptacle connector.	7.180.506	output connection
RS-232 connection kit	RS-232/USB connection kit for BPE boards, composed by: № 1 Serial cable RS-232 DB9/M12 L=4000 P/N 7.045.422; № 1 USB/RS-232 DB9 adapter P/N 7.045.008;	7.045.005	
RS-232 connection	RS-232 serial cable to connect a PC (DB9 connector) to BPE boards (M12x1 4pin receptable connector) L=4meters	7.045.422	
RS-232 connection	USB/RS-232 DB9 adapter	7.045.008	