D-Series Inclinometer

- **Dual axis inclinometer**
- **Measurement range +/-5° +/-15° and +/-30°**
- **High accuracy**
- **Digital and analogue output signal**
- **CANopen**
- **CE approved**

DESCRIPTION

The D- series of conductive inclinometers offers modern SMD- technology in an environmentally protected and robust aluminium housing. The inclinometer achieves high accuracy over a wide temperature range. The fast microcontroller works with a linearization and temperature compensation routines.This full calibrated inclinometer is available with digital output RS 232 and analogue voltage output 0.3 up to 4.7V or current output 4…20mA or PWM output or switch output signals**.** Futhermore is inclinometer is available with an CANopen interface.

FEATURES

- High accuracy
- Robust metal housing, IP Class 67/68
- High resolution
- EMC protected
- CE approved
- Rugged M12 male connector
- Programmable digital filtering to minimized influences from shock and vibration
- Programmable zero point, baud rate, output rate

APPLICATIONS

- Building control
- Road construction machines
- Wind power
- Weighing systems
- Mobile and stationary cranes
- Hydraulic leveling
- Platform leveling
- Drilling machines

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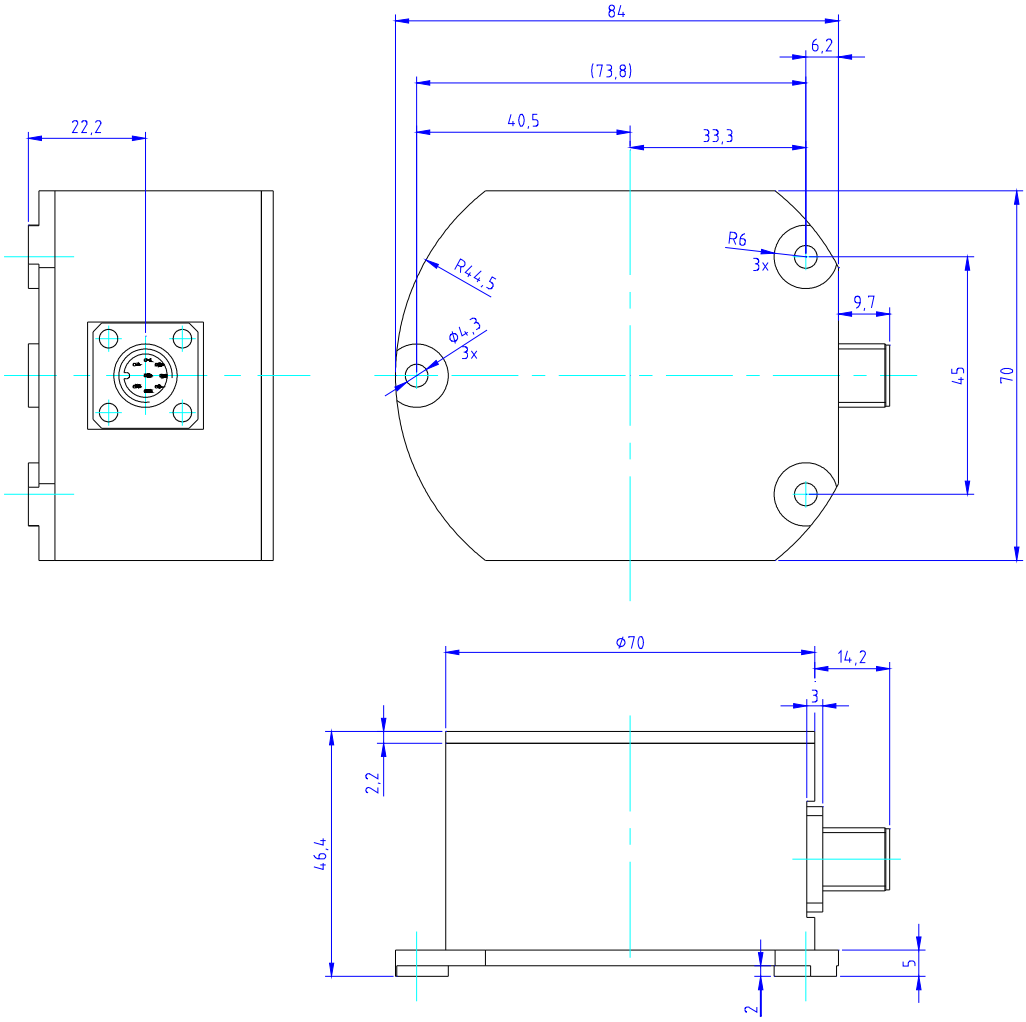
PERFORMANCE SPECS

	Conditions	Min	Type	Max	Unit
Measurement range		-5 (-15,-30)		+5(+15,+30)	°
Resolution		0.001		0.005	°
Accuracy, digital,analogue (absolute)	Ta = +25℃		0.04		°
Accuracy,digital,analogue (absolute)	Ta = -40℃ …+85℃		0.15	(0.3,0.8)	°
Offset temperature drift error	Ta = -40℃…+85℃		0.06		°
Noise RMS			0.001		°
Frequence responce			2	3	Hz
Power supply		10		30	VDC
Operation temperature range		-40		+85	℃
Storage temperature range		-40		+85	℃
Weight			290		g
Dimensions	W x D x H		84 x 70 x 46		mm
Unit with RS 232 interface and analogue output signal					
Transmission rate, programmable		0.1	10	16	Hz
Baud rate, programmable		2.4	9.6	57.6	kB
Current output		20		4	mA
Voltage output		0.3		4.7	V
PWM output	1 KHz	20		80	%
Switch output,programmable	step		0.1		°
Current consumption			30	40	mA
Unit with CANopen interface					
Baud rate, programmable		0.02	0.25	1	MBaud
Code	Binary				-
Interface	CAN according to CAL				-
Current consumption			50	90	mA

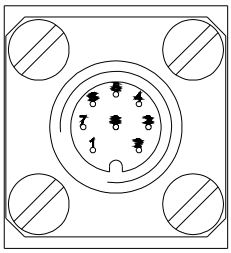
DIMENSIONS [MM]



PINNING - UNIT WITH RS 232 INTERFACE AND ANALOGUE OUTPUT

Pin	Name	Description	Type	Color schema (1)
1	+Ub	positive power supply +10...+30VDC	supply	white
2	RxD	Rx serial signal RS 232	input	brown
3	TxD	Tx serial signal RS232	output	green
4	GND	negative power supply, ground	supply	yellow
5	XOut	X-axis output	output	grey
6	SGND	signal ground	supply	pink
7	YOut	Y- axis output	output	blue
8	NC	NC	nc	nc

(1) by use a Measurement Specialties cable



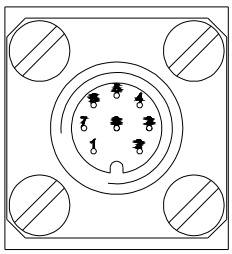
Front view of housing
connector inclinometer

For more details please use the product specification / application note / instruction manual.

PINNING – UNIT WITH CANOPEN INTERFACE

Pin	Name	Description	Type	Color schema (1)
1	+Ub	positive power supply +10...+30VDC	supply	white
2	NC	nc	nc	brown
3	NC	nc	nc	green
4	GND	negative power supply, ground	supply	yellow
5	CANout	CAN Low	output	grey
6	CANgnd	CAN Ground	supply	pink
7	CANout	CAN High	output	blue
8	NC	nc	nc	nc

(1) by use a Measurement Specialties cable



Front view of housing
connector inclinometer

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ORDERING INFORMATION

PART NUMBERING	UNIT	SHORT DESCRIPTION
G-NSDMG-015	NS-5/DMG2-U	Range +/-5°,Vcc 10…30VDC,output RS232,voltage
G-NSDMG-017	NS-5/DMG2-I	Range +/-5°,Vcc 10…30VDC,output RS232,current
G-NSDMG-014	NS-5/DMG2-PWM	Range +/-5°,Vcc 10…30VDC,output RS232,PWM
G-NSDMG-016	NS-5/DMG2-S	Range +/-5°,Vcc 10…30VDC,output RS232,switch
G-NSDMG-030	NS-5/DMG2-CXD	Range +/-5°,Vcc 10…30VDC,output CANopen
G-NSDMG-019	NS-15/DMG2-U	Range +/-15°,Vcc 10…30VDC,output RS232,voltage
G-NSDMG-021	NS-15/DMG2-I	Range +/-15°,Vcc 10…30VDC,output RS232,current
G-NSDMG-018	NS-15/DMG2-PWM	Range +/-15°,Vcc 10…30VDC,output RS232,PWM
G-NSDMG-020	NS-15/DMG2-S	Range +/-15°,Vcc 10…30VDC,output RS232,switch
G-NSDMG-031	NS-15/DMG2-CXG	Range +/-15°,Vcc 10…30VDC,output CANopen
G-NSDMG-023	NS-30/DMG2-U	Range +/-30°,Vcc 10…30VDC,output RS232,voltage
G-NSDMG-025	NS-30/DMG2-I	Range +/-30°,Vcc 10…30VDC,output RS232,current
G-NSDMG-022	NS-30/DMG2-PWM	Range +/-30°,Vcc 10…30VDC,output RS232,PWM
G-NSDMG-024	NS-30/DMG2-S	Range +/-30°,Vcc 10…30VDC,output RS232,switch
G-NSDMG-032	NS-30/DMG2-CXN	Range +/-30°,Vcc 10…30VDC,output CANopen

Accessories

G-NSMIS-036	Connector	Connector, straight, 713-series
G-NSMIS-013	Connector	Connector, angle 90°, 713-series
G-NSMIS-008	Connection	2 m cable, straight connector 763-series
G-NSMIS-009	Connection	2 m cable, angle 90° connector 763-series

Other cable lenght on request

NORTH AMERICA	EUROPE	ASIA
Measurement Specialties, Inc. 1000 Lucas Way Hampton, VA 23666 Tel: 1-800-555-1551 Fax: 1-757-766-4297 Email: sales@meas-spec.com Web: www.meas-spec.com	Europe MEAS Deutschland GmbH Hauert 13, D-44227 Dortmund, Germany. Phone: +49-(0)231-9740-0 Fax: +49-(0)231-9740-20 Email: info.de@meas-spec.com Web: www.meas-spec.com	Measurement Specialties China Ltd. No. 26, Langshan Road, Shenzhen High-tech Park (North) Nanshan District, Shenzhen, China 518107 Phone: +86-755-33305088 Fax: +86-755-33305099 Email: info.cn@meas-spec.com Web: www.meas-spec.com

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Distribuidor

Brasil e América do Sul

CONTATO

Endereço
Rua Sete de Setembro, 2671 - Centro
13560-181 - São Carlos - SP - Brasil

Telefone
+ 55 (16) 3371-0112

Fax
+ 55 (16) 3372-7800

Internet
www.metrolog.net
metrolog@metrolog.net

Metrolog Controles de Medição