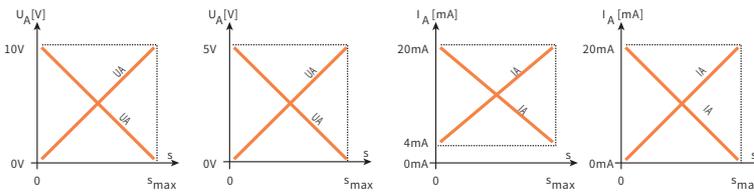




CH2-Analog

CH2 Series

Data Sheet



- + Durust: fully enclosed design with maximum IP69K protection
- + Easy to use, standard signal output, maintenance-free
- + Non-contact measurement, no attrition
- + Full scale adjustable, 100% adjustable zero and full scale



TECHNICAL PARAMETER

TECHNOLOGY PERCEIVES THE FUTURE

Input	Measured data	Position								
	Measurement range	50...4500mm								
Output	Voltage	0...10VDC, 10...0VDC, 0...5VDC, 5...0VDC (Controller min. load impedance >5K Ω)								
	Current	4...20mA, 20...4mA, 0...20mA, 20...0mA (min./max. load 0/750 Ω)								
Resolution	Position resolution	16 bit D/A								
	None-Linearity	< $\pm 0.02\%$ F.S. (min. $\pm 50\mu\text{m}$)								
	Repeatability	< $\pm 0.002\%$ F.S. (min. $\pm 20\mu\text{m}$)								
	Update time	<table border="1"> <thead> <tr> <th>Stroke length</th> <th>$\leq 1200\text{mm}$</th> <th>$\leq 2400\text{mm}$</th> <th>$\leq 4500\text{mm}$</th> </tr> </thead> <tbody> <tr> <td>Update time</td> <td>0.5ms</td> <td>1ms</td> <td>2ms</td> </tr> </tbody> </table>	Stroke length	$\leq 1200\text{mm}$	$\leq 2400\text{mm}$	$\leq 4500\text{mm}$	Update time	0.5ms	1ms	2ms
	Stroke length	$\leq 1200\text{mm}$	$\leq 2400\text{mm}$	$\leq 4500\text{mm}$						
Update time	0.5ms	1ms	2ms							
Temperature coefficient	<30ppm/ $^{\circ}\text{C}$									
Mounting	Mounting position	Any								
	Thread	Metric M18x1.5, metric M20x1.5, 3/4"-16UNF-3A								
Design/ Material	Electronics housing	Stainless steel 304								
	Measuring rod	Stainless steel 304/316L								
	Operating pressure ratings	35MPa (continuous) ,70MPa (peak)								
Electrical connection	Wiring connection	Straight out cable/5 pin M12 aviation plug/6 pin M12 aviation plug								
	Operating voltage	9VDC...36VDC								
	Polarity protection	Up to -36VDC								
	Overvoltage protection	Up to +36VDC								
	Power consumption	< 50mA (varies with range size)								
	Dielectric strength	500 VDC (DC ground to machine ground)								
Operating conditions	Magnet velocity	Any								
	Operating temperature	-40...85 $^{\circ}\text{C}$								
	Humidity	90 % relative humidity, no condensation								
	Ingress protection	IP67 (when connector is fitted)/IP68 (straight out cable) IP69K(special customization)								
	Shock	100 g (single shock) IEC standard 60068-2-27								
	Vibration	15g/10...2000 Hz, IEC standard 60068-2-6 (resonant frequencies excluded)								
	EMC	Electromagnetic emission according to EN 61000-6-3 Electromagnetic immunity according to EN 61000-6-2								

ITEM

CATEGORY

PARAMETER

CH2- ____ - **RP** - ____
 CH2- ____ - **RT** - ____

Straight out cable

Color	● Brown	○ White	● Yellow	● Green
Function	9VDC~36VDC	0 VDC(GND)	Signal circuit	Signal output

CH2- ____ - **D512** - ____

5 pin M12 connector

PIN-Male	1	2	3	4	5
Function	9VDC~36VDC	Signal output	0 VDC(GND)	NC	Signal circuit

View on sensor

CH2- ____ - **D616** - ____

6 pin M16 connector

PIN-Male	1	2	3	4	5	6
Function	Signal output	Signal circuit	NC	NC	9VDC~36VDC	0 VDC(GND)

View on sensor

ORDER CODE

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CH2 - - - - M - - - -

	Thread	Stroke length	Connection type	Output
M	Metric M18x1.5	0050...4500mm (5mm increments)	RP__ Straight out __m high performance cable	(Output Code)
V	Metric M20x1.5		RT__ Straight out __m high temperature cable (Fill in zero if less than 2 places)	
S	3/4"-16UNF-3A		D512 5 pin M12 connector D616 6 pin M16 connector	

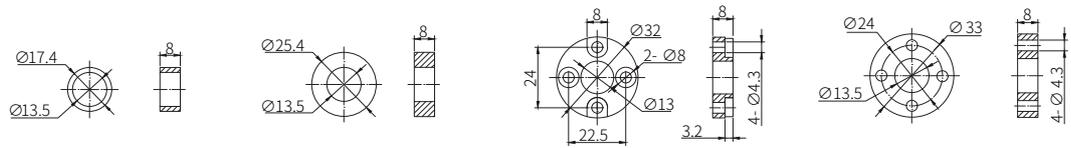
Analog Output Code	[1][2][3]
	[1][2] Current/Voltage [3] Magnet
A0	4...20mA (forward) V0 0...10V (forward) 1 one magnet
A1	20...4mA (reverse) V1 10...0V (reverse)
A2	0...20mA (forward) V2 0...5V (forward)
A3	20...0mA (reverse) V3 5...0V (reverse)

Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

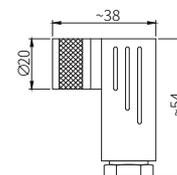
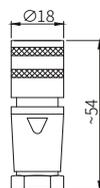
Model selection	Model: CH2-M-0800M-RP05-A01
	Explanation: CH2 series, integrated pressure resistance outer tube type, mounting thread metric M18x1.5, stroke length 800mm, straight out 5m high performance cable, 4 to 20mA current output (forward), single magnetic ring.

PARTS SELECTION

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Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40...125°C			
Order code	12-1032	12-1019	12-1024	12-1001
Fitting non-permeable gasket				
Name	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket
Operating temperature	-40...125°C			
Order code	12-1037	12-1021	12-1025	12-1008



Name	6 pin M16 female connector	6 pin M16 female connector (90 degree angle)
End view drawing		
Material	Galvanized nickel	
Fitting diameter	6...8mm	6...8mm
Connection	Welding	
Order code	18-3001	18-3003



Connector	5 pin M12 female connector	5 pin female connector (90 degree angle)
Name	Integral cable	Integral cable
Cable	5 wire 0.25mm ² shielded cable	5 wire 0.25mm ² shielded cable
Color/Diameter	Orange/ Ø 6	Orange/ Ø 6
End view drawing	 <ul style="list-style-type: none"> 1-Brown 2-Green 3-White 4-Grey 5-Yellow 	 <ul style="list-style-type: none"> 1-Brown 2-Green 3-White 4-Grey 5-Yellow
Length	5...30M	5/10/15/20/30M
Order code	16-1035	16-1040

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