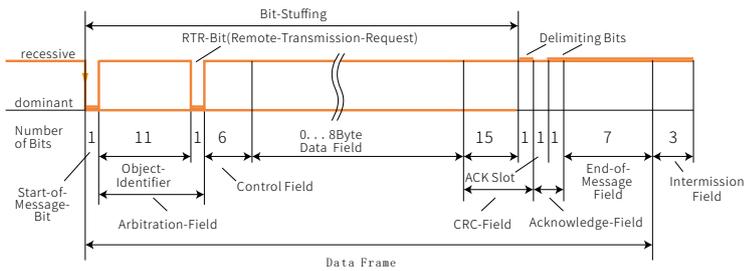




# DH-CANopen

## DH-Series Data Sheet



- + Durust: fully enclosed design with maximum IP68 protection
- + Easy to use, standard signal output, maintenance-free
- + Resolution highest up to 2µm
- + Non-contact measurement, no attrition
- + Miniaturized compact design, more suitable for space limited hydraulic cylinder



# TECHNICAL PARAMETER

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<b>Input</b>	Measured data	Position/Velocity				
	Position measurement range	25...4500mm				
	Velocity measurement range	0.01...10m/s				
<b>Output</b>	Communication protocols	CAN bus system protocol, ISO11898 CANopen CIA standard DS-301 V3.0 encoder profile DS-406 V3.1				
	Transmission rate	Rate(kbit/s)	1000	500	250	125
		Cable length(meter)	< 25	< 100	< 250	< 500
<b>Resolution</b>	Position resolution	2/5/10/20/50/100μm				
	Velocity resolution	1mm/s				
	None-Linearity	< ±0.02%F.S. (min. ±50μm)				
	Repeatability	< ±0.002%F.S. (min. ±20μm)				
	Update time	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500mm	
		Update time	0.5ms	1ms	2ms	
Temperature coefficient	<30ppm/°C					
<b>Mounting</b>	Mounting position	Any				
	Thread	Metric M18x1.5, metric M20x1.5, 3/4"-16UNF-3A				
<b>Design/ Material</b>	Electronics housing	Stainless steel 304				
	Measuring rod	Stainless steel 304/316L				
	Operating pressure ratings	Φ10 measuring rod : 35MPa (continuous) ,70MPa (peak) Φ7 measuring rod : 30MPa (continuous) ,45MPa (peak)				
<b>Electrical connection</b>	Wiring connection	Straight out cable or 5 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)				
	Terminal resistance	120Ω(Software-adjustable on and off)				
<b>Operating conditions</b>	Magnet velocity	Any				
	Operating temperature	-40...85°C				
	Humidity	90 % relative humidity, no condensation				
	Ingress protection	IP67 ( when connector is fitted)/IP68 (straight out cable )				
	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

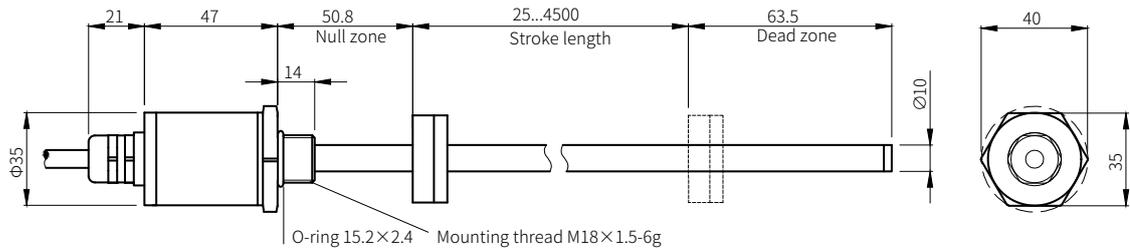
CATEGORY

PARAMETER

**Straight out cable**

DH- \_\_\_\_ - **RP** \_\_\_\_ - \_\_\_\_

DH- \_\_\_\_ - **RT** \_\_\_\_ - \_\_\_\_



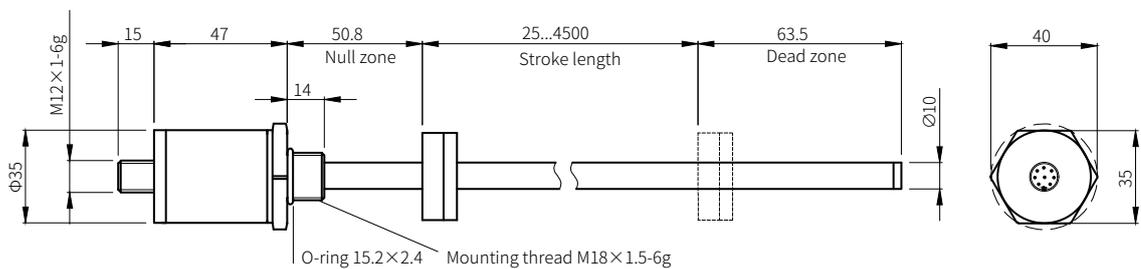
**FUNCTION**

Color	● Brown	○ White	● Yellow	● Green
Function	9VDC...36VDC	0 VDC(GND)	CAN-H	CAN-L

**5 pin M12 connector**

DH- \_\_\_\_ - **DP** \_\_\_\_ - \_\_\_\_

DH- \_\_\_\_ - **DT** \_\_\_\_ - \_\_\_\_



**FUNCTION**

PIN-Male	1	2	3	4	5
Function	NC	9VDC...36VDC	0VDC(GND)	CAN-H	CAN-L



View on sensor

**DH - - - M - - - C304 - - -**

			<b>Output</b> (Output Code)	
<b>Thread</b>	<b>Stroke length</b>	<b>Connection type</b>		
M Metric M18x1.5, Rod $\Phi$ 10mm	0025...4500mm (5mm increments)	RP/T__	Straight out __m high performance /high temperature cable	
V Metric M20x1.5, Rod $\Phi$ 10mm		DP/T__	5 pin M12 connector, with __ m high performance /high temperature cable	
S 3/4"-16UNF-3A, Rod $\Phi$ 10mm				
R Metric M18x1.5, Rod $\Phi$ 10mm, with M4x6 thread at tail end			(If the cable length is less than two digits, add zeros in front.)	
K Metric M18x1.5, Rod $\Phi$ 7mm			(If the avatation plug does not require a cable, please write DP00)	
L 3/4"-16UNF-3A, Rod $\Phi$ 7mm				

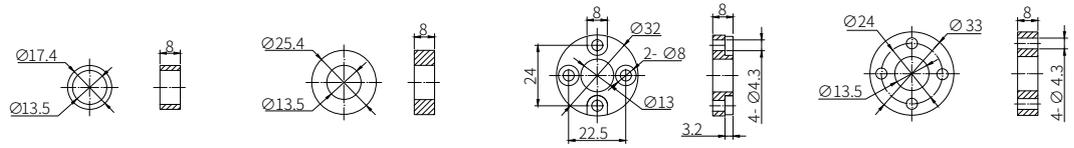
<b>CANopen Output Code</b>		<b>C304[1][2][3]</b>	Note: "*" as default
<b>[1] Baud rate</b>	<b>[2] Resolution ratio</b>	<b>[3] PDO cycle</b>	
1 100kBit/s	1 5 $\mu$ m*	1 1ms	
2 500kBit/s	2 2 $\mu$ m	2 10ms*	
3 250kBit/s*	3 10 $\mu$ m	3 100ms	
4 125kBit/s	4 50 $\mu$ m	4 Customizable (1-65535ms)	
	5 100 $\mu$ m		
	7 20 $\mu$ m		

K=Anti-vibration program (If there are special needs, please fill in the end of the model number.)

<b>Model selection</b>	Model: DH-M-0800M-RP05-C304312
	Explanation: DH series, integrated pressure resistance outer tube type, mounting thread metric M18x1.5, $\Phi$ 10mm measuring rod, stroke length 800mm, straight out 5m high performance cable, CANopen output, baud rate 250kBit/s, resolution 5 $\mu$ m, PDO cycle 10ms.

**PARTS SELECTION**

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



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