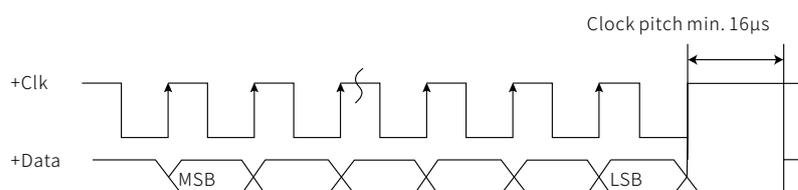




DH-SSI

DH-Series Data Sheet



- + Durust: fully enclosed design with maximum IP68 protection
- + Resolution highest up to 0.5µm
- + Standard SSI signal can directly replace the encoder
- + Miniaturized compact design, more suitable for space limited hydraulic cylinder
- + Digital technology: instant response, stable and reliable



Input	Measured data	Position												
	Measurement range	25~4500mm												
Output	Interface	SSI synchronous serial interface												
	Date format	Binary or Grey code, parity check and alarm bit optional												
	Data length	8...32 bit												
	Data speed	70kBd...1MBd depending on voltage length: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Stroke length(m)</td> <td>< 3</td> <td>< 50</td> <td>< 100</td> <td>< 200</td> <td>≤ 400</td> </tr> <tr> <td>Baud rate(kBd)</td> <td>1000</td> <td>< 400</td> <td>< 300</td> <td>< 200</td> <td>< 100</td> </tr> </table>	Stroke length(m)	< 3	< 50	< 100	< 200	≤ 400	Baud rate(kBd)	1000	< 400	< 300	< 200	< 100
	Stroke length(m)	< 3	< 50	< 100	< 200	≤ 400								
	Baud rate(kBd)	1000	< 400	< 300	< 200	< 100								
Update frequency	Stroke length(mm)	< 300	< 750	< 1000	< 2000	≤ 5600								
	Update frequency (kHz)	3.7	3.0	2.3	1.2	0.5								
Resolution	Position resolution	0.5/1/2/5/10/20/50/100μm												
	None-Linearity	< ±0.02%F.S.(min. ±50μm)												
	Repeatability	< ±0.002%F.S.(min. ±20μm)												
	Temperature coefficient	< 30ppm/°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	Φ10 measuring rod : 35MPa (continuous) ,70MPa (peak) Φ7 measuring rod : 30MPa (continuous) ,45MPa (peak)												
Electrical connection	Wiring connection	Straight out cable or 8 pin M12 aviation plug												
	Operating voltage	9VDC...36VDC												
	Polarity protection	Up to -36VDC												
	Overvoltage protection	Up to +36VDC												
	Power consumption	< 90mA (varies with range size)												
	Dielectric strength	500 VDC (DC ground to machine ground)												
Operating conditions	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

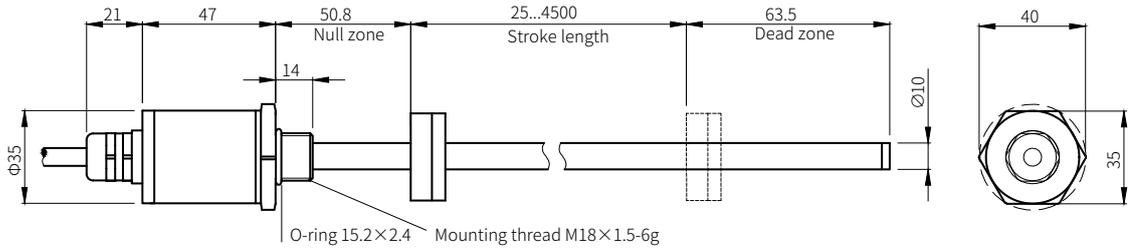
CATEGORY

PARAMETER

Straight out cable

DH- ____ - **RP** ____ - ____

DH- ____ - **RT** ____ - ____



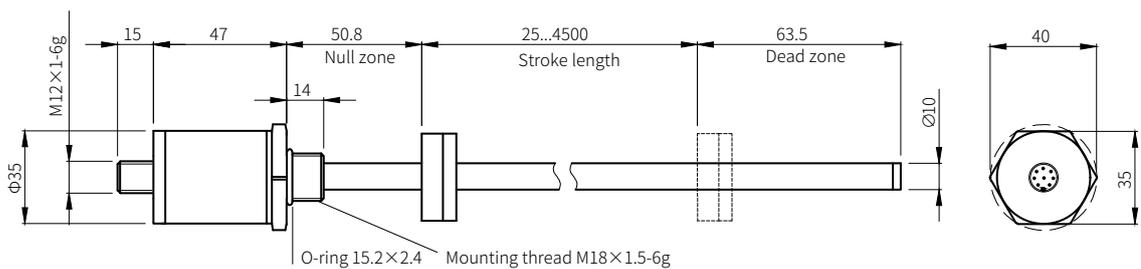
FUNCTION

Color	● Brown	○ White	● Yellow	● Green	● Grey	● Pink
Function	9VDC...36VDC	0 VDC(GND)	Clock+	Clock-	Data-	Data+

8 pin M12 connector

DH- ____ - **D82M** - ____

DH- ____ - **D82** - ____



D82M FUNCTION

PIN-Male	1	2	3	4	5	6	7	8
Function	Clock+	Clock-	Data+	Data-	NC	NC	9VDC...36VDC	0VDC (GND)

D82 FUNCTION

PIN-Male	1	2	3	4	5	6	7	8
Function	Clock+	Clock-	Data-	Data+	NC	NC	9VDC...36VDC	0VDC (GND)



View on sensor

DH - - - M - - - S - - -			Output (Output Code)	
Thread	Stroke length	Connection type		
M Metric M18x1.5, Rod Φ 10mm	0025...4500mm (5mm increments)	RP/T__	Straight out __m high performance /high temperature cable	
V Metric M20x1.5, Rod Φ 10mm		D82MP/T__	8 pin M12 connector, with __ m high performance /high temperature cable(Function1、 2、 3、 4、 7、 8)	
S 3/4"-16UNF-3A, Rod Φ 10mm		D82P/T__	8 pin M12 connector, with __ m high performance /high temperature cable(Function1、 2、 4、 3、 7、 8)	
R Metric M18x1.5, Rod Φ 10mm, with M4x6 thread at tail end			(Fill in zero if less than 2 places)	
K Metric M18x1.5, Rod Φ 7mm		D82M	8 pin M12 connector (Function1、 2、 3、 4、 7、 8)	
L 3/4"-16UNF-3A, Rod Φ 7mm		D82	8 pin M12 connector (Function1、 2、 4、 3、 7、 8)	

(If the cable length is less than two digits, add zeros in front.)

SSI Output Code		S [1][2][3][4][5][6]			
[1] Data length	[2] Format	[3] Resolution	[4] Options	[5][6] Mode	
1 25 bit	B Binary	1 5 μ m	1 Standard	00	Forward asynchronous mode
2 24 bit	G Gray	2 10 μ m		01	Reverse asynchronous mode
3 26 bit		3 50 μ m		02	Forward, synchronous mode
		4 100 μ m		05	Forward+alarm bit + parity check bit
		5 20 μ m			
		6 2 μ m			
		8 1 μ m			
		9 0.5 μ m			

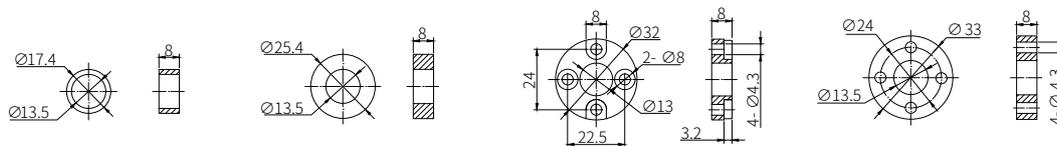
Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

Model selection | Model: DH-M-0800M-RP05-S2G1100

Explanation: DH series, integrated pressure resistance outer tube type, mounting thread metric M18x1.5, Φ 10mm measuring rod, stroke length 800mm, straight out 5m high performance cable, SSI output, 24 bit, Gray, resolution 5 μ m, standard, forward asynchronous mode.

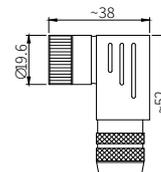
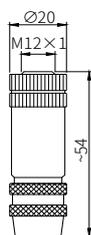
PARTS SELECTION

TECHNOLOGY PERCEIVES THE FUTURE

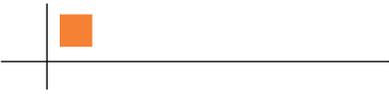


Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40...125°C			
Order code	12-1032	12-1019	12-1024	12-1001

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	8 pin M12 female connector	8 pin M12 female connector (90 degree angle)
End view drawing		
Material		
Fitting diameter	8...10mm	6...8mm
Connection	Thread	
Order code	18-5004	18-5005



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