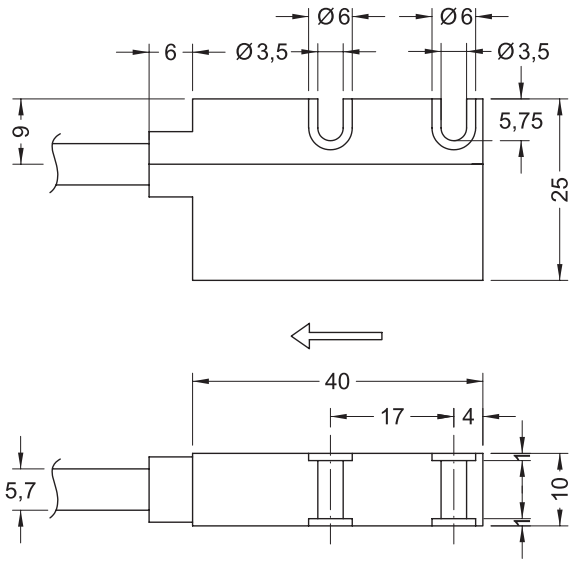
LINEPULS

Magnetic sensor for high dynamic applications

series **SHD5 • SHD2 • SHD1**



SHD5•SHD2•SHD1

- Magnetic sensor for linear and torque motors
- Speed proportional output signals
- Automatic gain and offset regulation
- Resolution up to 1 µm

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	-25°C ÷ +85°C (-13°F +185°F)
Storage temperature range:	-40°C ÷ +100°C (-40°F +212°F)
Protection:	IP67

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Housing:	aluminium
Connection:	cable 2,0 m
Gap sensor-magnetic tape:	0,1 ÷ 2,0 mm @ SHD5 0,1 ÷ 1,0 mm @ SHD2 0,1 ÷ 0,4 mm @ SHD1
Travel speed:	max. 16 m/s
Resolution:	0,001 mm max.
System accuracy (after automatic gain + offset regulation):	±1 increment
Repeatability:	±1 increment

ELECTRICAL SPECIFICATIONS	
Power supply:	+5Vdc ±5%, +10Vdc ÷ +30Vdc
Output circuits:	Line Driver, Push-Pull
Output signals:	A, /A, B, /B, I, /I
Output current (per channel):	40 mA max
Input current:	70 mA max
Protection:	against inversion of polarity (except 5Vdc version) and short-circut

ACCESSORIES	
MT50:	Magnetic tape
MT20:	Magnetic tape
MT10:	Magnetic tape
MRI:	Magnetic ring

ORDERING CODE

XXXX - XX - X - XX - X - XX X

SERIES

SHD5	
SHD2	
SHD1	

OUTPUT CIRCUITS

Push-Pull (AB)	Y
Push-Pull (AB, /AB)	YC
Line Driver (AB, /AB)	L

POWER SUPPLY

+5Vdc ±5% (L)	1
+10Vdc ÷ +30Vdc (Y and L)	2

RESOLUTION

50	50 µm (SHD5)
25	25 µm (SHD5)
10	10 µm (all)
5	5 µm (all)
2	2 µm (SHD1, SHD2)
1	1 µm (SHD1)

INDEX

N	without
I	every 2 mm

EDGE DISTANCE

A	1µs	min. edge distance at output*
B	2µs	
C	4µs	
D	8µs	
E	16µs	
F	32µs	

*see page 15

xx	Cable length on request Ex: 2= 2 meters 7= 7 meters