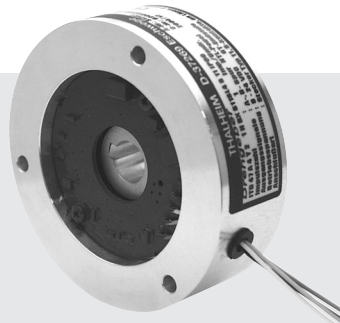
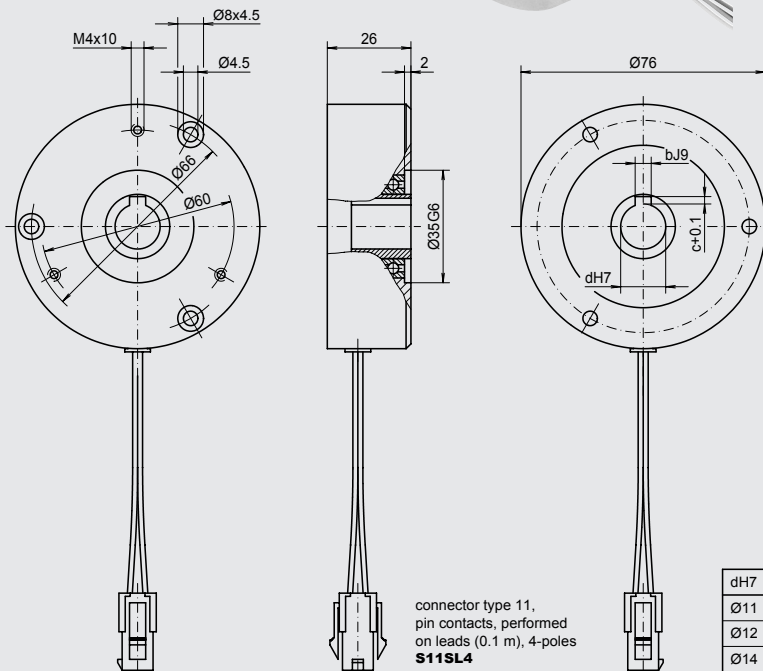


### Incremental encoder with magnetic scanning



#### Features

- Special incremental encoder for intended use in transformer oil
- Shaft pick-up via keyway
- HTL- output signals
- Connector S11SL4 with leads (0.1 m), radial (Molex 5559 series: 39-01-2041)



connector type 11,  
pin contacts, performed  
on leads (0.1 m), 4-poles  
**S11SL4**

dH7	bJ9	c+0.1
Ø11	4	1.8
Ø12	4	1.8
Ø14	5	2.3

drawing-no.: 031- 7 Y 2

#### Mechanical data

Design	A 4	A 4
Housing	aluminium, unpainted	
Protection	IP 00	according to DIN EN 60 529 IP00
Construction principle	pole ring with magnetic scanning	
max. revolution (mechanical)	$n_{max} \leq 8\,000 \text{ min}^{-1}$	
Permissible motor-shaft play	axial $\leq 0.1 \text{ mm}$ radial $\leq 0.05 \text{ mm}$	
Vibration	55... 2000 Hz $\leq 100 \text{ m/s}^2$	according to DIN IEC 60 068, part 2 - 6
Shock	11 ms $\leq 1000 \text{ m/s}^2$	according to DIN IEC 60 068, part 2 - 27
Hollow shaft diameter	d 11 mm	(standard), 12 mm, 14 mm possible 11
Weight	approx. 400 g	

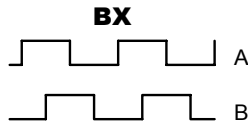
## Electrical data

Number of pulses	Z	1, 4, 8, 16, 20, 32 pulses/rev.	XXXX
Electronic version (output signals)	HTL	Push pull-output stage (short-circuit proof), supply voltage: $U_B = 8 - 26$ VDC (polarity protected), output amplitude: $U_{LOW} \leq 1.5$ V, $U_{HIGH} \geq U_B - 3$ V	H
Output signals	A, B	2 square wave pulse trains, electr. phase shifted 90°	BX
Output load current	$I_{load}$	$\leq 20$ mA	
Current consumption (no load)	$I_{max}$	$\leq 20$ mA	
Type of connection		connector type 11, pin contacts, performed on leads (0.1 m), 4-poles (connector Molex 5559 series: 39-01-2041)	S11SL4
Operating temperature range		-20 °C to +100 °C	S
Permissible relative humidity		$\leq 90$ % (condensation not permitted)	

## Connection table

PIN-no.	wire color	signals
PIN 1	brown	+ $U_B$
PIN 2	white	0 V
PIN 3	green	A
PIN 4	grey	B

## Output signal diagram



Pulse trains:  
Clockwise rotation when  
looking at the end of the  
shaft (mounting side).

## Ordering example:

<b>ITD 47</b> Incremental encoder ITD 47	<b>A 4</b> Design A 4	<b>Y 2</b> Mechanical variant Y 2 = look at the drawing	<b>1</b> Number of pulses 1 pulse/revolution	<b>H</b> Electronic version $U_B = 8 - 26$ VDC HTL	<b>BX</b> Output signals A; B-track	<b>S11SL4</b> Type of connection connector type 11, pin con- tacts, performed on leads, 4-poles	<b>S</b> Operating temperature range -20 °C to +100 °C	<b>11</b> Hollow shaft diameter 11 mm	<b>IP00</b> Protection IP00	Attachment kit variant
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