



DIT 10, DIT 30 Technical data:

Scale model	System resolution	Accuracy grades	Grating pitch	Max. velocity (Edge distance)
• Sinusoidal micro-current signals				
DIT 10.13	depending on external Subdividing	±1 µm	20 µm	2 m/s
DIT 10.11	depending on external Subdividing	±1 µm	10 µm	1 m/s
• Square wave Line Driver signals with integrated Subdividing				
DIT 10.23	5 µm	±1 µm	20 µm	2 m/s (> 1,6 µs)
DIT 10.63	1 µm	±1 µm	20 µm	1 m/s (> 500 ns)
DIT 10.73	0,5 µm	±1 µm	20 µm	1 m/s (> 250 ns)
DIT 10.71	0,25 µm	±1 µm	10 µm	0,5 m/s (> 250 ns)
DIT 10.51	0,1 µm	±1 µm	10 µm	0,3 m/s (> 100 ns)
DIT 10.81	0,05 µm	±1 µm	10 µm	0,45 m/s (> 100 ns)
DIT 10.91	0,025 µm	±1 µm	10 µm	0,225 m/s (> 100 ns)
• Sinusoidal micro-current signals				
DIT 30.13	depending on external Subdividing	±1 µm	20 µm	2 m/s
DIT 30.11	depending on external Subdividing	±1 µm	10 µm	1 m/s
• Square wave Line Driver signals with integrated Subdividing				
DIT 30.23	5 µm	±1 µm	20 µm	2 m/s (> 1,6 µs)
DIT 30.63	1 µm	±1 µm	20 µm	1 m/s (> 500 ns)
DIT 30.73	0,5 µm	±1 µm	20 µm	1 m/s (> 250 ns)
DIT 30.71	0,25 µm	±1 µm	10 µm	0,5 m/s (> 250 ns)
DIT 30.51	0,1 µm	±1 µm	10 µm	0,3 m/s (> 100 ns)
DIT 30.81	0,05 µm	±1 µm	10 µm	0,45 m/s (> 100 ns)
DIT 30.91	0,025 µm	±1 µm	10 µm	0,225 m/s (> 100 ns)

Stroke length:

DIT 10 = 10 mm

DIT 30 = 30 mm

DIT 30.xx B (version with sealing bellows) = 30 mm

Scale version:

glass scale rigidly attached to the sleeve which is a guided shaft ball bearing

Reference mark (RI):

In the middle of the measuring length (standard), or at any location (option)

Mounting of the probe:

shaft sleeve Ø8 h6 DIN 878 (for hole Ø8H7), two tapped holes on body (DIT 30)

measuring contact-holder M2,5

Measuring force: <1,6 N (shaft oriented downward)

Permissible lateral force at the shaft: 0,2 N

Accessories: cable lifter

Optional: integrated pneumatic lifter (on request)

Permissible temperature: -20°C to +70°C (storage), 0°C to +40°C (operative)

Environmental sealing DIN 40050:

DIT 10, DIT 30 = IP 50

DIT 30.xx B (version with sealing bellows) = IP 64

Signal-outputs (optional):

• sinusoidal micro-current signals

DIT 10.13

DIT 10.11

DIT 30.13

DIT 30.11

Power supply:

+5 V ±5%, max. 120 mA

Encoder signals: 7 to 16 µApp,

typical 11,5 µApp at 1 KΩ

Reference pulse: 2 to 8 µA,

typical 5 µA (useable component) at 1 KΩ

• square wave signals (single ended)

with integrated Subdividing Electronics

• square wave signals (differential)

via Line Driver RS 422 standard with integrated Subdividing Electronics

DIT 10.23 = time 1

DIT 10.63 = times 5

DIT 10.73 = times 10

DIT 10.71 = times 10

DIT 10.51 = times 25

DIT 10.81 = times 50

DIT 10.91 = times 100

DIT 30.23 = time 1

DIT 30.63 = times 5

DIT 30.73 = times 10

DIT 30.71 = times 10

DIT 30.51 = times 25

DIT 30.81 = times 50

DIT 30.91 = times 100

Power supply:

+5 V ±5%, max. 150 mA (unloaded)