DIT 48 Technical data:

Scale model	System resolution	Accuracy grades	Grating pitch	Max. velocity (Edge distance)
• Sinusoidal micro-current signals				
DIT 48.13	depending on external Subdividing	±1 µm	20 µm	2 m/s
DIT 48.11	depending on external Subdividing	±1 µm	10 µm	1 m/s
• Square wave Line Driver signals with integrated Subdividing				
DIT 48.23	5 µm	±1 µm	20 µm	2 m/s (> 1,6 µs)
DIT 48.63	1 µm	±1 µm	20 µm	1 m/s (> 500 ns)
DIT 48.73	0,5 µm	±1 µm	20 µm	1 m/s (> 250 ns)
DIT 48.71	0,25 µm	±1 µm	10 µm	0,5 m/s (> 250 ns)
DIT 48.51	0,1 µm	±1 µm	10 µm	0,3 m/s (> 100 ns)
DIT 48.81	0,05 µm	±1 µm	10 µm	0,45 m/s (> 100 ns)
DIT 48.91	0,025 µm	±1 µm	10 µm	0,225 m/s (>100 ns)

Stroke length: 48 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 (optional)

Mounting of the probe:
Shaft sleeve Ø8 h6 DIN 878 (for hole Ø8H7)
or two tapped holes on body
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 (operation)

Environmental sealing DIN 40050:
DIT 48 = IP 50
DIT 48.xx B (version with sealing bellows) = IP 64

Signal-outputs (optional):

• sinusoidal micro-current signals
  DIT 48.13
  DIT 48.11

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 48.23 = time   1
  DIT 48.63 = times   5
  DIT 48.73 = times   10
  DIT 48.71 = times   10
  DIT 48.51 = times   25
  DIT 48.81 = times   50
  DIT 48.91 = times 100

Power supply:
+5 V ±5%, max. 150 mA (unloaded)