

# C Series



Especially designed for standard machines with a measuring length of up to 3040 mm. With reference marks every 50 mm or distance-coded and a connector on the reader head.

GENERAL CHARACTERISTICS	
Maximum speed	60 m/min. (198 ft / min.)
Maximum vibration	3 g
Moving force	<5N
Operating temperature	0°...50°C
Storage temperature	-20°...70°C
Weight	1.2 Kg + 2.50 Kg/m
Humidity	20...80%
Protection	IP 53 (standard) IP 64 (DIN 40050) with pressurized air intake
Movement	On roller bearings
Light source	IRED
Power supply	5V ± 5%, 100 mA
Reader head	With built-in connector (see pages 30-31 for connection devices)
Method of measuring	Chromed glass scale with 20 µm (0.0008 inch) grating pitch

SPECIFICATIONS	CT / COT	CX / COX	CP / COP
Accuracy	± 10 µm (± 0.0004 inch)	± 5 µm (± 0.0002 inch)	± 5 µm (± 0.0002 inch)
Resolution	5 µm (0.0002 inch)	1 µm (0.00004 inch)	Up to 0.1 µm (0.000004 inch)
Reference marks I <sub>0</sub>	CT, CX and CP: every 50 mm (1.97 inches) from the middle to both ends COT, COX and COP: Distance-coded reference marks		
Output signals	□□ TTL	□□ Differential TTL	~ 1Vpp
Period "T" of output signals	20 µm	4 µm 20 µm	20 µm
Maximum cable length	20 m (66 ft)	50 m (165 ft)	150 m (495 ft)

## Measuring length: C Series

### All models

mm	inches
220	8,7
270	10,6
320	12,6
370	14,6
420	16,5
470	18,5
520	20,5
620	24,4
720	28,3
770	30,3
820	32,3
920	36,2
1020	40,2
1140	45
1240	48,8

### Accuracy models only 5 and 10 µm

mm	inches
1340	52,8
1440	56,7
1540	60,6
1640	64,6
1740	68,5
1840	72,4
1940	76,4
2040	80,3
2240	88,2
2440	96
2640	104
2840	112
3040	120

## Order Identification

Example: COP - 42 - 5

<b>C</b>	Type of profile • C: For average space
<b>0</b>	Reference mark type I <sub>0</sub> • Blank space: Reference mark every 50 mm (1.97 inches) • O: Distance-coded reference mark
<b>P</b>	Signal type • T: TTL, resolution of 5 or 10 µm (0.0002 or 0.0004 inch) • X: Differential TTL, resolution of 1 µm (0.00004 inch) • C: 11 µA current modulated sinusoidal signal • P: 1Vpp sinusoidal signal
<b>42</b>	Measuring length in cm In the example (42) = 42 cm = 420 mm (16.5 inches)
<b>5</b>	Accuracy • 5: ± 5 µm (± 0.0002 inch) • Blank space: ± 10 µm (± 0.0004 inch)

