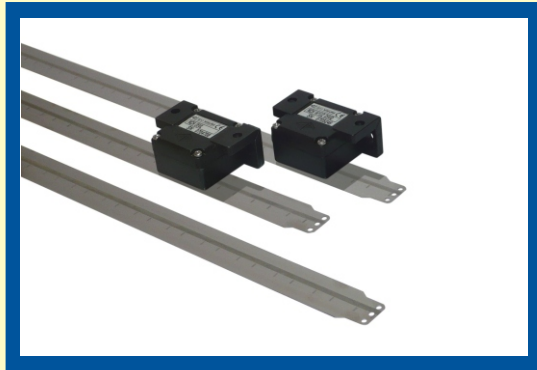


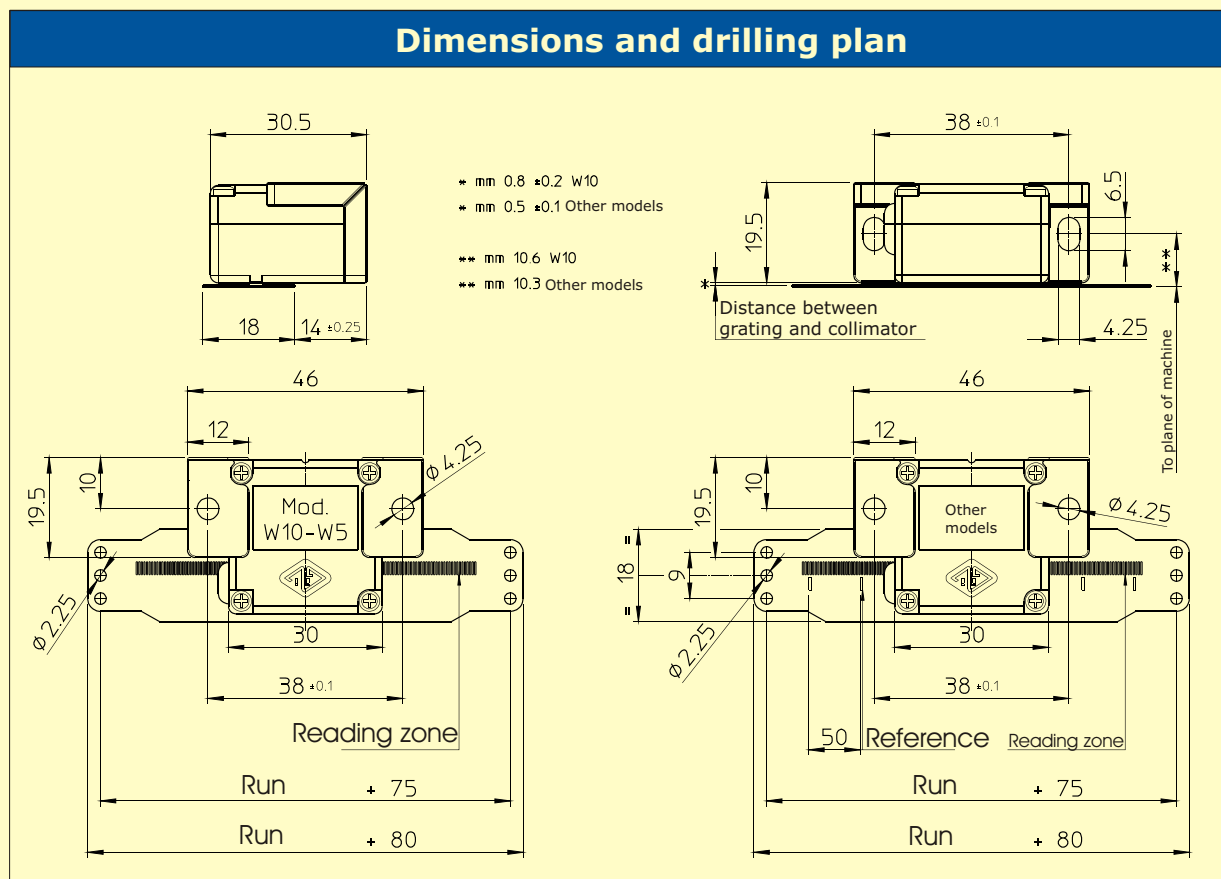
## Optical scale incremental NCH



### Characteristics

- Stainless steel grid (dimensions 18 x 0.305 mm in a single section),
- Very flexible connection cable
- High stability of the signals
- Broad alignment tolerances
- Resolution up to 1 micron
- Accuracy  $\pm 5$  microns / m
- Therm. expansion:  $=10,6 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$

### Dimensions and drilling plan



Measure

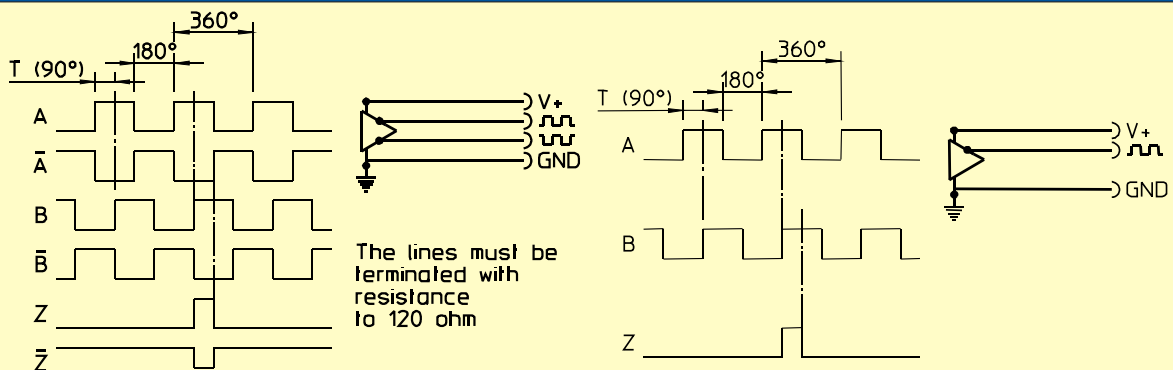
### Electrical data

Power supply	5 VDC $\pm 5\%$
Power consumption	65 mA <sub>MAX</sub>
A and B output signal	LINE DRIVER; PUSH-PULL
Phase displacement	90° (electrical)

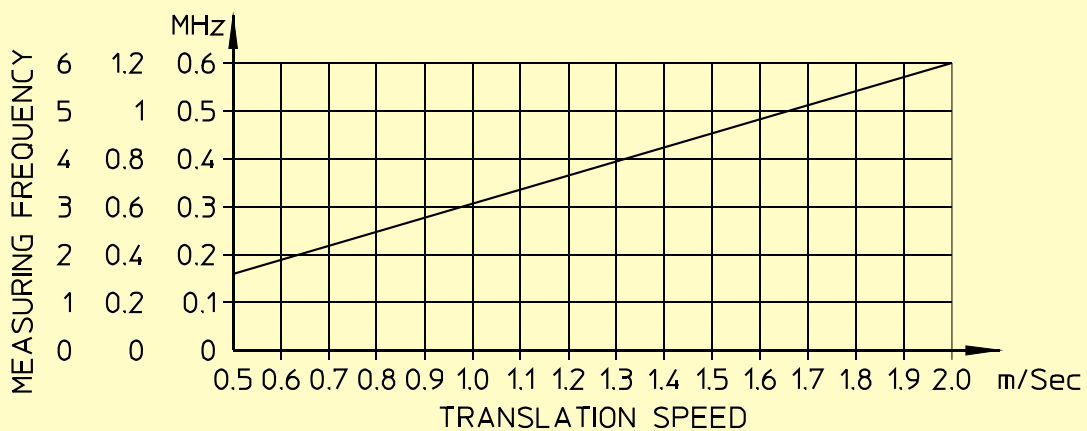
### Mechanical data

	T10Z	T5Z	T1Z	W05	W10
L= LINE DRIVER Q= PUSH-PULL	L	L	L	L Q	L Q
Grating pitch $\mu\text{m}$	200	200	200	200	400
Grating pitch $\mu\text{m}/\text{m}$	$\pm 5 \mu\text{m}$				
Resolution $\mu\text{m}$	10	5	1	5	10
Max. traversing speed m/min	300	210	120	120	120
Max. acceleration in $\text{m}/\text{s}^2$	60	60	30	30	30
Measuring support	Stainless steel				
Protection class	IP 40				
Operating temperature	0 - 70°C				
Storage temperature	-20°C - 70°C				
Measuring length in mm Max. cable length	250, 300, 350, 400, 450 30m				

### Output signals - SSI



### Output signals - BiSS C



## Optical scale incremental NCH

Pin assignment		
Signal		Conductor color
LINE DRIVER	PUSH-PULL	
A	B	green
$\bar{A}$	NC	orange
B	A	white
$\bar{B}$	NC	light-blue
Z	Z	brown
$\bar{Z}$	NC	yellow
SCH	SCH	shield
VS=5V	VS=5V	red
VS0=0V	VS0=0V	dark blue

Ordering example					
Example: NCH - T10Z - 00250 - 05VL - M01/N - CV					
Model	Resolution	Length	Power supply Output signals	Cable length Cable type	Connector
<b>NCH</b>	<b>T10Z</b>	<b>00250</b>	<b>05VL</b>	<b>M01 / 1</b>	<b>CV</b>
	<b>T10 Z=10 <math>\mu</math>m</b> <b>T5Z=5 <math>\mu</math>m</b> <b>T1Z=1 <math>\mu</math>m</b> <b>W10=10 <math>\mu</math>m</b> <b>W05=5 <math>\mu</math>m</b>	Length in mm <b>00250=250 mm</b> <b>00300=300 mm</b> <b>00350=350 mm</b> <b>00400=400 mm</b> <b>00450=450 mm</b>	<b>05V=5 V</b> <b>L=LINE DRIVER</b> <b>Q=PUSH-PULL</b>	<b>Mnn=length in mm</b> <b>M01=1 m (standard)</b> <b>M04=4 m</b> <b>M30=3m (max)</b> <b>N=standard cable</b>	<b>Cnn=progressive</b> <b>SC=without</b> <b>connector</b>