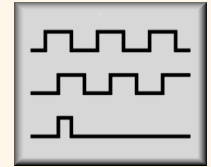


Incremental Encoder with hollow shaft ITD 3 A 4 Y18

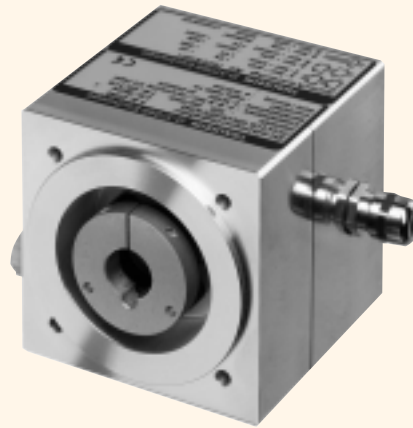


Qualities :

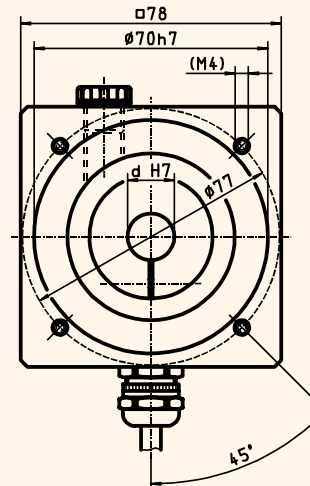
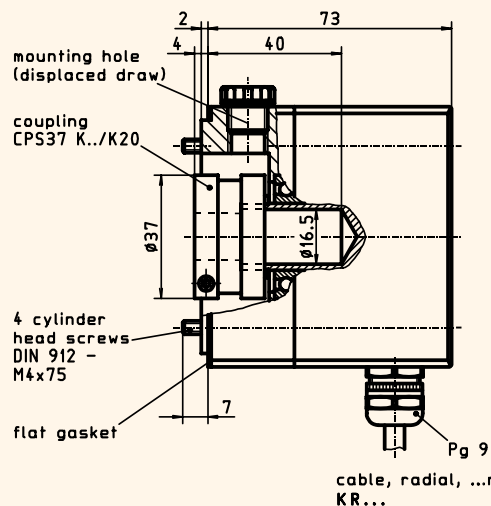
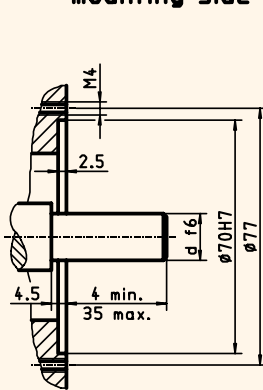
- Robust hollow shaft incremental encoder with integrated coupling
- **Number of pulses**, up to **1024** pulses per revolution
- Centering seat $\varnothing 70$, mounting punch circle $\varnothing 77$
- TTL- or HTL-output signals
- Cable outlet radial
- Connector versions optional



commencing in July '99
New connection cable
⇒ new color code
(see reverse page)



mounting side



ITD 3 A 4 Y18

drawing-no.: 015 - 3 Y18

Mechanical data:

Housing		light-alloy metal, unpainted	
Design style	A 4	A 4, with integrated coupling	
Protective class	IP54	IP 54	according DIN 40 050, IEC 529
Construction principle		LED with slotdisc	
max. revolution (mechanical)	n_{max}	≤ 8000 rpm	(observe frequency limit)
Admissible motor-shaft play	axial	≤ 0.25 mm	
	radial	≤ 0.25 mm	
Starting torque	at 20 ° C	≤ 1.5 Ncm	
Vibration	55... 2000 Hz	≤ 100 m/s ²	according DIN IEC 68, part 2-6
Shock	11 ms	≤ 1000 m/s ²	according DIN IEC 68, part 2-27
Hollow shaft diameter	d	15 mm (standard)	(10 to 16 mm possible)
Weight		approx. 1100 g	

Incremental Encoder with hollow shaft

ITD 3 A 4 Y18



Electrical data:

• Number of pulses	Z	XXXX	1 to 1024 pulses per revolution (standard values at request)
• Execution of electronic	TTL	T	TTL-output signals supply voltage: $U_B = 5 \text{ VDC} \pm 5\%$ (poling error safe)
	HTL	H	HTL-output signals supply voltage: $U_B = 8 - 30 \text{ VDC}$ (poling error safe)
• Output signals	A, B + Inv.	BI	2 square-wave pulse trains phase shifted by $90^\circ (\pm 10^\circ)$ electr. + inverting pulse : pause = 1 : 1 $\geq 15 \text{ V}/\square\text{s}$
Pulse ratio			
Flank steepness			
Frequency limit	f_G		60 kHz
Output load current	I_{Load}		$\leq 70 \text{ mA}$
Input current	I_{max}		$\leq 100 \text{ mA}$ (without load)
Permissible cable length			$\leq 100 \text{ m}$ (Thalheim-cable)
• Type of connection		KR1	cable, radial, 1.0 m (standard length)
• Operating temperature range		S	-20 °C to +70 °C

Options:

• Execution of electronic		R	TTL-output signals supply voltage: $U_B = 8 - 30 \text{ VDC}$ (poling error safe)
• Output signals	A, B, N + Inv.	NI	2 square-wave pulse trains + zero pulse, 90° electr. + inverting
• Type of connection	connector	D2SR12	socket type 2, pin contacts, radial, 12-poles
	connector	...	performed at cable (ref. data sheet Type of performed cables)
• Operating temperature range		E	-20 °C to +100 °C

Accessories:

Connector, for version **D1SR12**

S2BG12 connector type2, bush contacts, straight, 12-poles

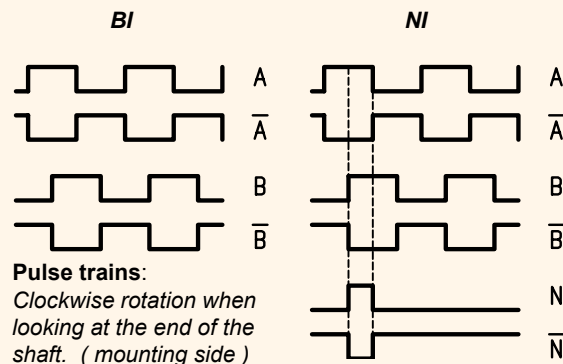
Connection table:

wire color	wire color	signals
brown	green	= A
green	brown	= A inverted
grey	grey	= B
pink	black	= B inverted
red	pink	= N
black	white	= N inverted
brown 0.5 mm ²	red	= + U_B
white 0.5 mm ²	blue	= 0 V
blue		= + U_{sensor}
white		= 0 V _{sensor}
transparent		= shilding/housing
	yellow	= housing
	transparent	= shilding

New commencing in July '99

Old valid until June '99

Output signal diagram:



Ordering example:

ITD 3	A 4	Y18	1024	H	BI	KR1	S	15	IP54	
Incremental encoder ITD 3	Design style A 4	Mechanical variante Y18 = look at the drawing	Number of pulses 1024 pulses / revolution	Execution of electronic $U_B = 8-30 \text{ VDC HTL-output}$	Output signals A-, B-track + inverting	Type of connection cable, radial, 1 m	Operating temperature 20 °C to +70 °C	Hollow shaft diameter 15 mm	Protective class IP 54	Attachment kit variante