

ATEX PROGRAMMABLE INCREMENTAL ENCODERS, IHK5 RANGE

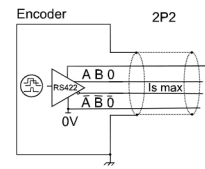
OUTPUT ELECTRONIC / SUPPLY - DIGITAL SIGNALS (SQUARE WAVE SIGNALS) - 2P2 ELECTRONIC

Supply : 4.5 to 6Vdc, Consumption : 75mA
 Intern capacity : 1.3µF, intern inductance : 0mH
 RS422, 40 mA, TTL 20mA, F_{max}= 300kHz
 II 1 G/D EEx ia IIC T4, Ex iaD 20 T135°C

Barrier to be used for supply:
 U_i≤10V, L_i≤750mA, P_i≤1.875W

Barrier to be used for each output:
 U_i≤10V, L_i≤200mA, P_i≤0.5W

Protection against short circuits



STANDARD CONNECTION

		-	+	A	B	0	A/	B/	0/	Ground
G6	12 pins CW	1	2	3	4	5	6	7	8	Body Connector
G8	12 pins CCW	10 + 11	2 + 12	8	5	3	1	6	4	Body Connector
G3	PVC cable 8 wires 8230/020	WH white	BN brown	GN green	YE yellow	GY grey	PK pink	BU blue	RD red	General Shielding
GP	PUR cable 12 wires 8230/050	WH white + WH/GN white / green	BU blue + BN/GN brown / green	GY grey	BN brown	RD red	PK pink	GN green	BK black	General Shielding

ORDERING REFERENCE

	Shaft Ø	Supply	Output stage	Signals	Resolution	Connection	Orientation
IHK5 Cover : Zinc alloy Body : Aluminium	14 : 14 mm	2 : 5Vdc	P2 : driver RS422	9 : A,A/,B,B/,0,0/ (0, gated A&B)	Basic: 5 000 max	G6 : M23 12pins CW G5 : M23 12pins CW G8 : M23 12 pins CCW G1 : solenoid 4 pins G2 : DIN 5 pins GD : DIN 8 pins G3 : PVC cable 8 wires GP : PUR cable 12 wires	R : radial Example : R020 : radial cable 2m
Ex: IHK5	14 //	2	P2	9 //	5 000 //	GP	R050

AVAILABLE INTERPOLATED RESOLUTIONS

Simple multiplication of the basic disk resolution : 1, 2, 3, 4, 5, 8, 10, 12 and 16 times by dip-switch without software, nor hardware

Interpolation Factor	Basis Resolutions											switchs position				
	250	256	360	500	1 024	2 500	3 000	3 600	4 000	4 096	5 000	factor	CODE SWITCH			
X 1	250	256	360	500	1 024	2 500	3 000	3 600	4 000	4 096	5 000	x 1	ON	OFF	OFF	OFF
X 2	500	512	720	1 000	2 048	5 000	6 000	7 200	8 000	8 192	10 000	x 2	ON	OFF	OFF	OFF
X 3	750	768	1 080	1 500	3 072	7 500	9 000	10 800	12 000	12 288	15 000	x 3	ON	OFF	OFF	OFF
X 4	1 000	1 024	1 440	2 000	4 096	10 000	12 000	14 400	16 000	16 384	20 000	x 4	ON	OFF	OFF	OFF
X 5	1 250	1 280	1 800	2 500	5 120	12 500	15 000	18 000	20 000	20 480	25 000	x 5	ON	OFF	OFF	OFF
X 8	2 000	2 048	2 880	4 000	8 192	20 000	24 000	28 800	32 000	32 768	40 000	x 8	ON	OFF	OFF	OFF
X 10	2 500	2 560	3 600	5 000	10 240	25 000	30 000	36 000	40 000	40 960	50 000	x 10	ON	OFF	OFF	OFF
X 12	3 000	3 072	4 320	6 000	12 288	30 000	36 000	43 200	48 000	49 152	60 000	x 12	ON	OFF	OFF	OFF
X 16	4 000	4 096	5 760	8 000	16 384	40 000	48 000	57 600	64 000	65 536	80 000	x 16	ON	OFF	OFF	OFF

NEVER CONNECT/DISCONNECT OR OPEN THE ENCODER UNDER POWER SUPPLY IN DUST ENVIRONMENTS

RESPECT THE MOUNTING TOLERANCES AND THE MECHANICAL RESTRICTIONS IN ORDER TO REMAIN IN LINE WITH THE MAXIMAL SURFACE TEMPERATURE VALUE ALLOWED BY THE CLASS T4 REQUIREMENTS

LCIE 04 ATEX 6109 X : CE certification of Type for the encoder :

Operating temperature : **-30°C to +70°C**

The components of the device are intrinsically safe : they can be used in explosive atmospheres. The supply and output circuits can only be connected to associated devices which are intrinsically safe and that are certified by type (ia) or (ib). These devices must have electrical parameters that have a compatible supply with the above mentioned electronics

LCIE 04 ATEX 6155 X : CE certification of Type for the encoder's system (encoder in association with a BEI barrier) :

Operating temperature : **barrier -20°C to +40°C and encoder -30°C to +70°C**

System classification : **EEx ia IIC T4 Ex iaD 20 T135°C**

The interconnecting cables have to be sufficiently protected against damage and have to be separated from the non intrinsically safe circuits. They are described in the norm EN50020 paragraph 6.3, with the following characteristics C=100pF/m and L=1.2µH/m, or with cables with other C and L values, with respect to the maximum authorized :

Gases : **Ca=3.9µF and L=0.4mH**

Dust : **Ca=38.7µF and L=0.8mH**

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