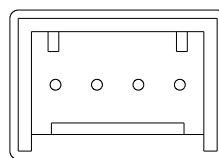
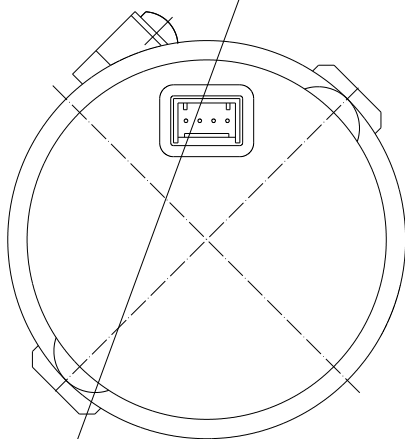
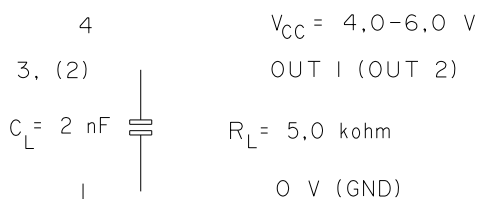


Tj nstest lle/Handl ggare	Fastst llt av sign	Anv nds av/utskrivet av	Dokument s kv g	Sida
TR / Anders Uddman		TR / Anders Uddman	macintosh hd:users:mathilda:downloads:optical encoder-spec-issue4.doc	1 (2)
Mottagare		Sparatdatum	Utskriftsdatum	Utg va
		2012-11-26	2012-11-27	4
Rubrik, e . rapport, protokoll, information etc.	rende			Registrerings nr. Annan referens
Customer information	Specification for optical encoder on KSV-motors			-

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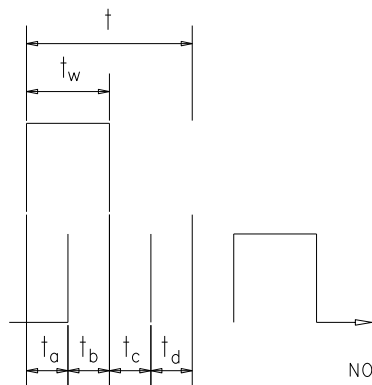
TEST CONNECTION



AT A LOAD ACC. TO THE CIRCUIT DIAGRAM ABOVE THE CHARACTERISTICS OF THE OUTPUT SIGNAL SHALL BE AS IN FIGURE BELOW.
 t_w SHALL BE BETWEEN 35% AND 65% OF t .

THE AMPLITUDE VALUE SHALL NOT BE LESS THAN 3 V. THE PHASE SHIFT BETWEEN OUT 1 AND OUT 2, t_a , t_b , t_c AND t_d SHALL BE 20°e MIN.

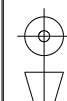
OUTPUT SIGNAL CHARACTERISTICS
 (60 OR 100 PULSES/ARMATURE TURN)



NOTE: FOR ADDITIONAL INFORMATION SEE SPECIFICATION FOR OPTICAL ENCODER.

Surface finish except as stated:

Tolerances except as stated:



1st angle projection

A4

Material			ANKARSRUM	
Treatment			Title	
			KSV MOTOR WITH OF	
Scale	Drawn	Approved	No.	Issue

Tj nstest lle/Handl ggare	Fastst llt av sign	Anv nds av/utskrivet av	Dokument s kv g	Sida
TR / Anders Uddman		TR / Anders Uddman	macintosh hd:users:mathilda:downloads:optical encoder-spec-issue4.doc	2 (2)
Mottagare		Sparatdatum	Utskriftsdatum	Utg va
		2012-11-26	2012-11-27	4
Rubrik, e . rapport, protokoll, information etc.	rende			Registrerings nr. Annan referens
Customer information	Specification for optical encoder on KSV-motors			-

Absolute maximum ratings

	<i>Standard</i>	<i>Line driver</i>
Suppl voltage (V+)	5 V 20%	5 V 20%
Minimum output voltage of high output level	V+	V+ -1,0 V
Maximum output source current	6 mA ma .	100 mA (20 μ s)
Maximum output voltage of low output level	0,8 V ma .	1 V ma .
Maximum output sink current	100 mA ma . (20 μ s)	100 mA ma . (20 μ s)

Typical rating and error range

	<i>Standard</i>	<i>Line driver</i>
Suppl current	30 mA	35 mA
Pulse dut	50 % 15%	50 % 15%
Phase shift between pulse A and B	20 e min.	20 e min.
Rise time	<3 μ sec (load condition) 2 nF	<4 μ sec (load condition) 2 nF <5 μ sec (load condition) 10 nF
Fall time	<2 μ sec (load condition) 2 nF	<3 μ sec (load condition) 2 nF <5 μ sec (load condition) 10 nF

Other

	<i>Standard</i>	<i>Line driver</i>
Output circuit t p	Open collector (1 kohm to V+)	push pull (50 ohm outp.)