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Transducer mod. T6-H

INSTRUCTIONS MANUAL



FUNCTION

The transducer mod. T6-H is used to carry out **machine ROTATION SPEED** measurement, by assembling the transducer in correspondence with a gearwheel (measuring shaft) of which the characteristics are known. The transducer is fit for **ZERO SPEED** measures.

PRINCIPLE OF OPERATION

The transducer mod. T6-H is a differential hall effect transducer: the magnetic field, generated by an internal permanent magnet, is modulated by wheel tooth presence. The internal electronics generates a square wave output which represents tooth presence - absence.

TRANSDUCER POSITIONING

- 1) Predispose an opportune support for transducer housing (hole M14x1,5).
- 2) Assemble the transducer according to the relative drawing, taking care to position the sensor notches as indicated.
- 3) Record gap value between transducer measure area and measuring shaft tooth top, lock in position. Gap value must be included between 0.5mm and 2.5mm for a standard wheel, 60 teeth, diameter 120mm; in all other cases this value must be included between 0.5mm and 3.5mm, according to profile type. Gap value doesn't affect sensor output; it affects its activation only.

WIRING

Wiring is made through shielded cables, having minimum section of 0.50mm². The cable shield can be connected to pin 4 of the connector which in any case has not internal connections to the sensor. Don't use the shield as sensor connection. Don't wire connection cables into the same duct together with power cables or noises sources. Don't wire many sensors on the same cable.

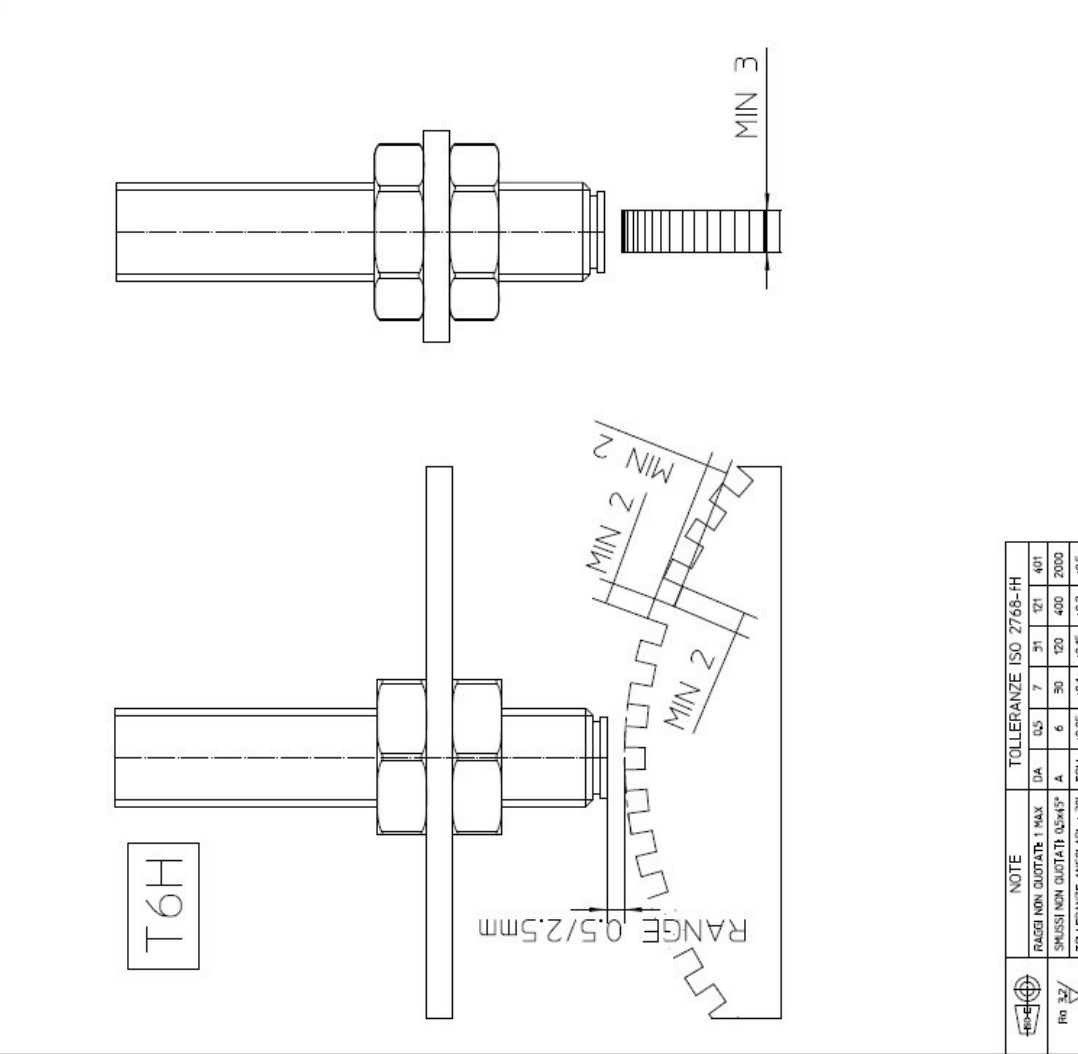
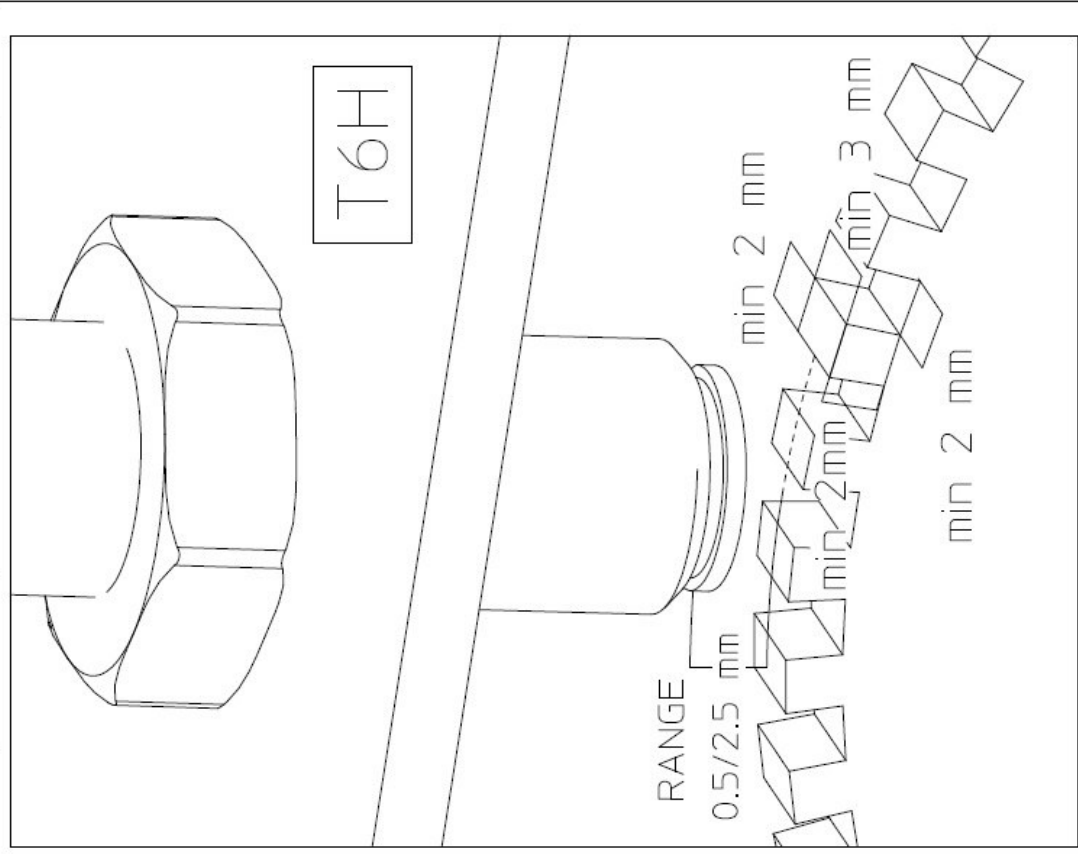
TEETH PROFILE REQUIREMENTS

The gearwheel must be made of steel or other ferromagnetic material; stainless steel, plastic and non-ferromagnetic materials can't be used. The standard profile utilized during tests is of 60 teeth, for a gearwheel having a diameter of 120mm; different teeth profiles can generate modifications into usable minimum and maximum gap.

The following table shows the minimum target to ensure the correct operation of sensor:

Thickness	>3 mm
Tooth width	>2 mm
Slot width	>2 mm
Slot depth	>2 mm
Material	Low carbon steel

0	1	2	3	4	5	6	7	8	9
					Rev.	Creazione		Descrizione Modifica	Disegnatore
					-	-	-	-	-
					-	-	-	-	-
					-	-	-	-	-



	NOTE							
	TOLLERANZE ISO 2768-FH							
RAGGI NON QUOTATI	1	MAX	0A	0S	7	31	121	401
SPUNSI NON QUOTATI	0.5x45°	A	6	30	120	400	2000	
TOLLERANZE ANGOLARI	± 30'	TOLL.	±0.05	±0.1	±0.15	±0.2	±0.5	

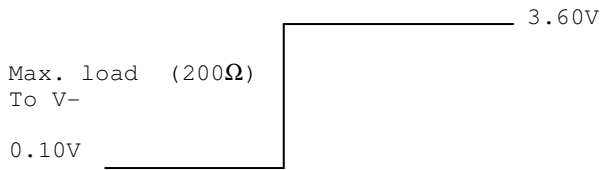
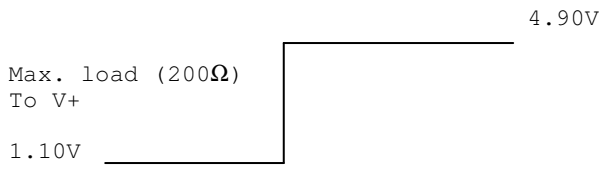
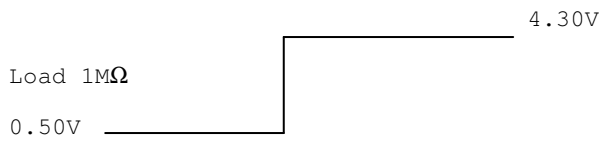
Data: Disegnatore: Cliente: Ordine:	SCALE: 1:1 FOGLIO: 1 d 1 FORMATO: A4	Tipo di macchina: Disegno: Descrizione:	Cod: Rev.
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CEMB
 Ing. Buzzi & C. - SpA.
 Costruttori Elettra Meccaniche

OUTPUT

Output characteristics (5Vdc power supply):



Output characteristics (30Vdc power supply):

