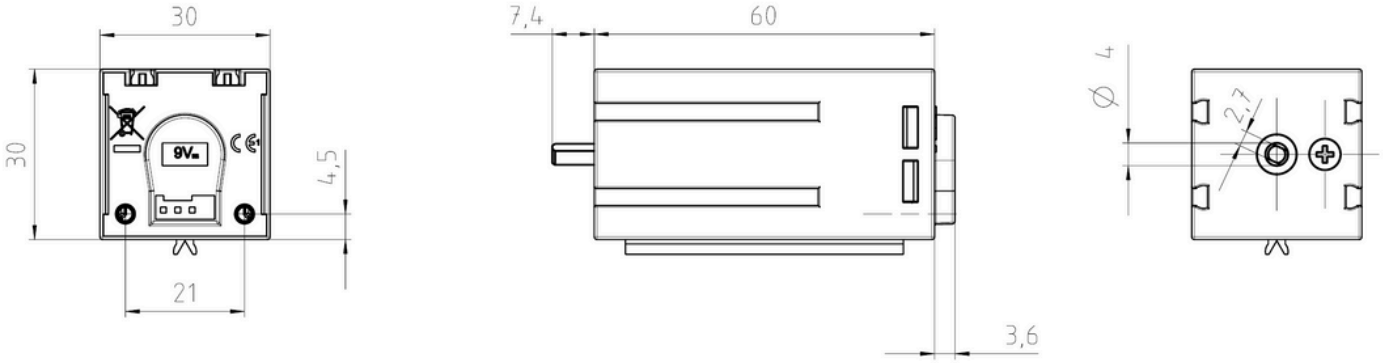
ENCODER MOTOR 9V
Art. Nr. 153422

MOTOR

Voltage Suggested	9.0 DC Constant between motor terminals
Operating Temperature Range	Between 0°C to +50°C
Storage Humidity Range	Between 20% to 70%
Reduction Ratio	1:21.3
No Load Speed	200(±22) rpm
No Load Current	0.10 A max.
Stall Torque	1.3 kgcm min.
Stall Current	1.3 A max.

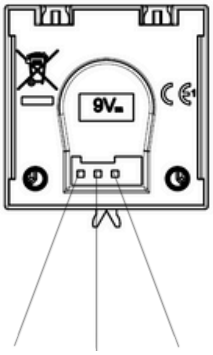


ENCODER

Signal	Push-Pull Output (0/9V), max. 10 mA
Frequency	max. 1 kHz
Connector	3-pin header
Fitting Cable	Art. Nr. 137125, Art. Nr. 168961
Supply Voltage Encoder	3,3 - 9V DC
Signal	npn open collector output, max. 2 mA

When the encoder motor is connected to a digital input of any control units (not fischertechnik controllers) a pull-up resistance of 4.7-10 kOhms is needed between the encoder signal an the encoder power supply (3.3V or 5V).

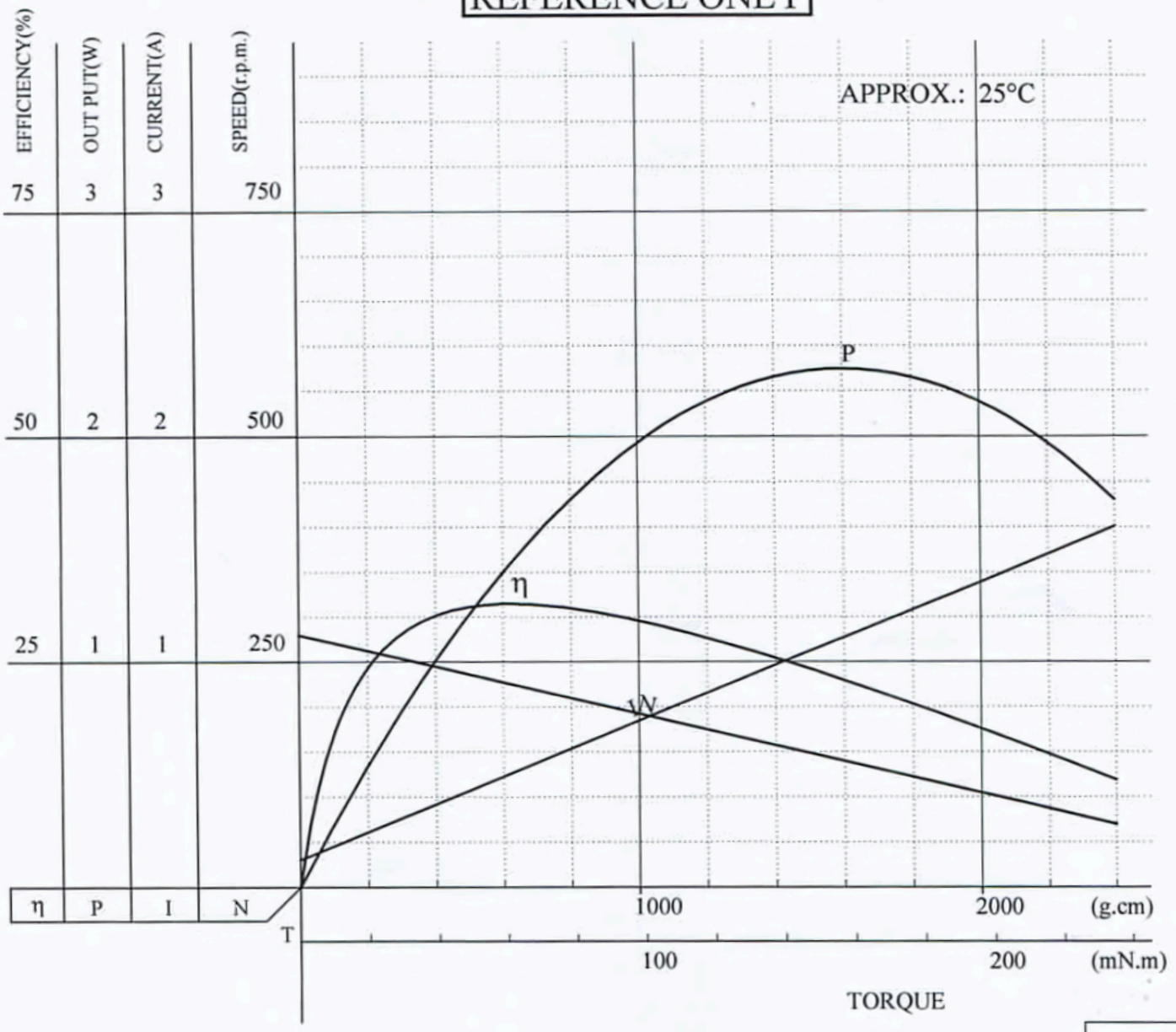
Resolution of encoder: 3 pulses (6 pulses when counting 0-1 and 1-0 edge) per round of motor. 63.9/127.8 pulses per round of the gear shaft.



0V	3,3 - 9V	encoder signal

NO LOAD		AT MAX. EFFICIENCY					STALL	
SPEED (r.p.m)	CURRENT (A)	SPEED (r.p.m.)	CURRENT (A)	TORQUE (g.cm)	OUT PUT (W)	EFFICIENCY (%)	CURRENT (A)	TORQUE (g.cm)
280	0.12	230	0.51	624	1.44	31.5	2.1	3200

REFERENCE ONLY



MICRO SERVO 4,8/ 6V

Art. Nr. 132292

Control System	Positive PWM control (neutral approx. 1500µs)
Operation Voltage Range	4.8 V ~ 6.0 V
Operation Temperature Range	-20C° ~ +60C°

Test Voltage	**At 4.8 V**	**At 6.0 V**
Standing Torque	1.8 kgcm	2.2 kgcm
Speed	0.13 sec / 60 deg at no load	0.11 sec / 60 deg at no load
Idle Current	200 mA at stopped	220 mA at stopped
Stall Current	1000 mA	1200 mA
Dead Band Width	8 µs	8 µs

Moving Angle	60° ± 10°
Direction	Clock Wise / Pulse Travel approx. 600 to 2400µs
Driver Type	FET Drive
Motor Type	Metal Gear
Potentiometer Type	Indirect Drive
Amplifier Type	Analog Control
Gear Material	Metal
Wire Length	240 mm
Wire Gauge	26 AWG heavy duty (JR Universal)
Plug Type	JR Plug
Brown Wire	GND
Red Wire	VCC
Orange Wire	Signal

Servo motor in fischertechnik holder

Servo-lever
Art. Nr. 132004

Servo holder
Art. Nr. 132290