

- PROFINET IO interface with PROFIsafe protocol
- Type with solid shaft
- Functional safety according to
 - EN 61508: SIL CL3
 - EN ISO 13849: PL e
- 13 Bit resolution, 32768 revolutions
- Incremental signals for position feedback, 4096 pulses
- Construction types B5 (flange) and B35 (flange and foot)
- Degree of protection: IP54 (labyrinth seal) and IP66 (axial shaft seal)



Electrical Data

Supply voltage	13...27 V DC, SELV/PELV
Current consumption without load	< 180 mA, at 24 V DC
PROFINET IO - Device	IEC 61158, IEC 61784-1; PROFIsafe profile: No. 3.192b
Singleturn resolution	13 Bit (8192 steps/revolution)
Multiturn resolution	15 Bit (32768 revolutions)
Output code	Binary
Additional features	Preset
Incremental output without reference pulse	4096 pulses
Cycle Time	≥ 1 ms (IRT / RT)
Transmission rate	100 Mbit/s
Huebner specific functions ¹⁾	velocity output in increments/integration time, safe
Safety principle	2 redundant scanning systems with internal cross comparison
Safety of the total system <ul style="list-style-type: none"> - T₁, proof test - PFH, "High demand" operating mode - PFD_{av} (T = 20 a) - MTTF_d high - DC_{avg} high 	20 years 1.46 * 10 ⁻⁹ /h 1.27 * 10 ⁻⁴ 421 a 95 %
Parameter ¹⁾ <ul style="list-style-type: none"> - Integration time, safe / unsafe - Size of monitoring window - Standstill tolerance Preset - Direction of counting 	50 ms...500 ms / 5 ms...500 ms 50...4000 increments 1...5 increments/integration time, safe Forward, Backward
¹⁾ secured programmable parameter	

Mechanical Data

Mass <ul style="list-style-type: none"> - Construction type B5 - Construction type B35 	approx. 3.0 kg approx. 3.5 kg
Mechanically permissible speed <ul style="list-style-type: none"> - Degree of protection IP54 - Degree of protection IP66 	≤ 6000 min ⁻¹ ≤ 4000 min ⁻¹
Rotor moment of inertia <ul style="list-style-type: none"> - Degree of protection IP54 - Degree of protection IP66 	approx. 400 gcm ² approx. 330 gcm ²
Breakaway torque <ul style="list-style-type: none"> - Degree of protection IP54 - Degree of protection IP66 	approx. 2.0 Ncm approx. 2.0 Ncm

Environmental conditions

Vibration resistance, EN 60068-2-6:2008	≤ 100 m/s ² , sine
Shock resistance, EN 60068-2-27:2009	≤ 1000 m/s ² , half-sine
EMC - Immunity to disturbance - Transient emissions	EN 61000-6-2:2005 EN 61000-6-3:2007
Encoder temperature range	-25...+70 °C
Storage temperature	-30 °C...+60 °C, dry
Relative humidity, EN 60068-3-4:2002	98 %, non condensing
Degree of protection, EN 60529:2000 ²⁾	- IP54 with labyrinth seal - IP66 with axial shaft seal
²⁾ valid with screwed on mating connector	

Dimension Drawing (HM 13 M 106327a)

