



Sine encoders

- Sine output 1 Vpp
- End shaft \varnothing 10-20 mm
- Hollow shaft \varnothing 20-27 mm
- Cone shaft \varnothing 17 mm
- Shaft \varnothing 6 and \varnothing 11 mm
- Optical sensing
- Resolution max. 5000 pulses
- LowHarmonics technique
- A 90° B and inverted signals
- Protection max. IP 66





				
OGS 71	POGS 90			
- Encoder with shaft \varnothing 6 mm - Resolution max. 5000 ppr - Sine output signals 1 Vpp - Low harmonic content (patented LowHarmonics technology)	- Encoder with shaft \varnothing 11 mm - Resolution max. 5000 ppr - Low harmonic content (patented LowHarmonics technology) - Sine output signals 1 Vpp			
5 VDC \pm 10 % 9...30 VDC	5 VDC \pm 10 % 9...30 VDC			
1024...5000	720...5000			
A 90° B, C + inverted	K1 90° K2, K0 + inverted			
-20...+85 °C	-20...+85 °C			
\varnothing 60 mm	\varnothing 115 mm			
\varnothing 6 mm	\varnothing 11 mm			
\leq 10000 rpm	\leq 10000 rpm			
Terminal box	Terminal box			

Absolute encoders - parallel



Absolute encoders - parallel

- End shaft and shaft encoders
- Clamping and synchro flange
- Optical and magnetic sensing
- Resolution: singleturn max. 13 bit
- Resolution: multiturn 12 bit
- High resistance to shock and vibrations
- Cable or connector output





				
Model	BMSH 58 parallel - <i>MAGRES</i>	BMSV 58 parallel - <i>MAGRES</i>	GA240, GA241 - parallel	GXP1W - parallel
Features	-Encoder singleturn / parallel -Magnetic sensing -Resolution: 12 bit -High resistance to shock and vibrations	-Encoder singleturn / parallel -Magnetic sensing -Resolution: 12 bit -High resistance to shock and vibrations	-Encoder singleturn / parallel -Optical sensing -Resolution: 13 bit -Clamping or synchro flange	-Encoder multiturn / parallel -Optical sensing -Resolution: singleturn 12 bit, multiturn 12 bit -Clamping or synchro flange
Voltage supply	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Total resolution	12 bit	12 bit	13 bit	24 bit
Interface	12 parallel outputs	12 parallel outputs	13 parallel outputs	24 parallel outputs
Operating temperature	-20...+85 °C	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-25...+70 °C
Housing	ø58 mm	ø58 mm	ø58 mm	ø58 mm
Shaft diameter	ø12 mm end shaft	ø6 mm / ø10 mm	ø6 mm / ø10 mm	ø6 mm / ø10 mm
Operating speed	≤12000 rpm	≤12000 rpm	≤10000 rpm	≤10000 rpm
E-connection	Cable	Cable	Connector or cable	Connector D-SUB, 37-pin, 1 m cable

Absolute encoders - SSI







Absolute encoders - SSI

- Hollow or end shaft encoders
- Singleturn and multiturn encoders
- Optical and magnetic sensing
- Resolution: singleturn 12-15 bit
- Resolution: multiturn 12-24 bit
- High resistance to shock and vibrations
- Programmable functions
- Optional: incremental signals

				
Model	BMSH 58, BMMH 58 SSI - <i>MAGRES</i>	GXM2S - SSI	G0M2H - SSI	ATD 4S A 4 Y10
Features	- Encoder single- or multiturn / SSI - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 13 bit - High resistance to shock and vibrations	- Encoder multiturn / SSI - Optical sensing - Resolution: singleturn 14 bit, multiturn 12 bit - End shaft ø12 mm / ø14 mm	- Encoder multiturn / SSI - Optical sensing - Resolution: singleturn 14 bit, multiturn 12 bit - Hollow shaft max. ø14 mm	- Encoder single- or multiturn / SSI - Optical sensing - Resolution: singleturn 15 bit, multiturn 24 bit - Hollow shaft ø20-27 mm
Voltage supply	5 VDC ±10 % 10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Total resolution	25 bit	26 bit	26 bit	39 bit
Interface	SSI	SSI Incremental A 90° B (optional)	SSI Incremental A 90° B (optional)	SSI
Operating temperature	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)	-20...+85 °C
Housing	ø58 mm	ø58 mm	ø58 mm	ø80 mm
Shaft diameter	ø12 mm end shaft	ø12-14 mm end shaft	ø12-14 mm hollow shaft	ø20-27 mm hollow shaft
Operating speed	≤12000 rpm	≤6000 rpm	≤6000 rpm	≤5000 rpm
E-connection	Connector or cable	Connector, 12-pin	Connector, 12-pin	Connector M23 type 2, 12- pin resp. 17-pin





Absolute encoders - SSI



					
Model	G1S2B - SSI	BMSV 30, BMMV 30 SSI - <i>MAGRES</i>	BMSV 42, BMMV 42 SSI - <i>MAGRES</i>	BMSV 58, BMMV 58 SSI - <i>MAGRES</i>	
Features	-Encoder multiturn / 2 x SSI -Optical sensing -Resolution: singleturn 13 bit, multiturn 12 bit -For safety-relevant applications according SIL3	-Mini encoder single- or multiturn / SSI -Magnetic sensing -Resolution: singleturn 10 bit, multiturn 15 bit -Housing ø30 mm	-Mini encoder single- or multiturn / SSI -Magnetic sensing -Resolution: singleturn 12 bit, multiturn 13 bit -Housing ø42 mm	-Encoder single- or multiturn / SSI -Magnetic sensing -Resolution: singleturn 12 bit, multiturn 13 bit -High resistance to shock and vibrations	
Voltage supply	10...30 VDC	5 VDC ±10 % 10...30 VDC	5 VDC ±10 % 10...30 VDC	5 VDC ±10 % 10...30 VDC	
Total resolution	25 bit	25 bit	25 bit	25 bit	
Interface	SSI Incremental A, B + inverted	SSI	SSI	SSI	
Operating temperature	-25...+85 °C -40...+85 °C (optional)	-20...+85 °C	-20...+85 °C	-20...+85 °C	
Housing	ø90 mm	ø30 mm	ø42 mm	ø58 mm	
Shaft diameter	ø20 mm hollow shaft	ø5-8 mm	ø6 mm / ø10 mm	ø6 mm / ø10 mm	
Operating speed	≤3800 rpm	≤6000 rpm	≤12000 rpm	≤12000 rpm	
E-connection	Connector, 16-pin	Connector or cable	Connector or cable	Connector or cable	





Absolute encoders - SSI

- Shaft and hollow shaft encoders
- Singleturn and multiturn encoders
- Optical and magnetic sensing
- Resolution: singleturn 10-18 bit
- Resolution: multiturn 12-16 bit
- High resistance to shock and vibrations
- Electronic setting of zero point
- Optional: incremental signals
- Protection max. IP 66

				
GA240, GA241 - SSI	GM400, GM401 - SSI	GBM2W - SSI	AMG 71	
- Encoder singleturn / SSI - Optical sensing - Resolution: 14 bit - Clamping or synchro flange	- Encoder multiturn / SSI - Optical sensing - Resolution: singleturn 14 bit, multiturn 12 bit - Clamping or synchro flange	- Encoder multiturn / SSI - Optical sensing - Resolution: singleturn 18 bit, multiturn 16 bit - Clamping or synchro flange	- Encoder multiturn / SSI - Optical sensing - Resolution: singleturn 13 bit, multiturn 12 bit / 16 bit - Multiturn: sensing principle without gears and battery	
10...30 VDC	10...30 VDC	10...30 VDC	7...30 VDC	
14 bit	26 bit	34 bit	29 bit	
SSI Incremental A 90° B (optional)	SSI Incremental A 90° B (optional)	SSI Incremental A 90° B (optional)	SSI	
-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)	-20...+85 °C	
ø58 mm	ø58 mm	ø58 mm	ø60 mm	
ø6 mm / ø10 mm	ø6 mm / ø10 mm	ø6 mm / ø10 mm	ø6 mm	
≤10000 rpm	≤10000 rpm	≤10000 rpm	≤5000 rpm	
Connector or cable	Connector or cable	Connector or cable	Terminal box	

Absolute encoders - bus interfaces



					
Model	BMSH 42, BMMH 42 CANopen - <i>MAGRES</i>	BMSH 58, BMMH 58 CANopen - <i>MAGRES</i>	GXP5S - CANopen	G0P5H - CANopen	
Features	- Mini encoder single- or multiturn / CANopen - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 18 bit - Housing ø42 mm	- Encoder single- or multiturn / CANopen - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 18 bit - Integrated fieldbus interface	- Encoder multiturn / CANopen - Optical sensing - Resolution: singleturn 13 bit, multiturn 16 bit - End shaft ø12 mm / ø14 mm	- Encoder multiturn / CANopen - Optical sensing - Resolution: singleturn 13 bit, multiturn 16 bit - Hollow shaft max. ø14 mm	
Voltage supply	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
Total resolution	30 bit	30 bit	29 bit	29 bit	
Interface	CANopen	CANopen	CANopen	CANopen	
Operating temperature	-20...+85 °C	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)	
Housing	ø42 mm	ø58 mm	ø58 mm	ø58 mm	
Shaft diameter	ø12 mm end shaft	ø12 mm end shaft	ø12-14 mm end shaft	ø12-14 mm hollow shaft	
Protection DIN EN 60529	IP 42 IP 65	IP 65	IP 54	IP 54	
E-connection	Connector or cable	Connector or cable	Connector	Connector	