





Absolute encoders - bus interfaces





Absolute encoders - bus interfaces

- CANopen and DeviceNet
- End shaft and hollow shaft encoders
- Shaft encoders with clamping and synchro flange
- Singleturn and multiturn encoders
- Optical and magnetic sensing
- Resolution: singleturn 12-13 bit
- Resolution: multiturn 16-18 bit
- High resistance to shock and vibrations
- Electronic setting of zero point

				
BMSV 42, BMMV 42 CANopen - <i>MAGRES</i>	BMSV 58, BMMV 58 CANopen - <i>MAGRES</i>	GXP5W - CANopen	BMSH 42, BMMH 42 DeviceNet - <i>MAGRES</i>	BMSH 58, BMMH 58 DeviceNet - <i>MAGRES</i>
- Mini encoder single- or multiturn / CANopen - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 16 bit - Housing $\varnothing 42$ 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 - Clamping or synchro flange	- Mini encoder single- or multiturn / DeviceNet - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 16 bit - Housing $\varnothing 42$ mm	- Encoder single- or multiturn / DeviceNet - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 16 bit - Integrated fieldbus interface
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
28 bit	30 bit	29 bit	28 bit	28 bit
CANopen	CANopen	CANopen	DeviceNet	DeviceNet
-20...+85 °C	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-20...+85 °C	-20...+85 °C
$\varnothing 42$ mm	$\varnothing 58$ mm	$\varnothing 58$ mm	$\varnothing 42$ mm	$\varnothing 58$ mm
$\varnothing 6$ mm / $\varnothing 10$ mm	$\varnothing 6$ mm / $\varnothing 10$ mm	$\varnothing 6$ mm / $\varnothing 10$ mm	$\varnothing 12$ mm end shaft	$\varnothing 12$ mm end shaft
IP 65	IP 65	IP 54 IP 65	IP 65	IP 65
Connector or cable	Connector or cable	Connector	Connector or cable	Connector or cable

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Model	BMSV 42, BMMV 42 DeviceNet - <i>MAGRES</i>	BMSV 58, BMMV 58 DeviceNet - <i>MAGRES</i>	GXP8W - DeviceNet	BMMH 58 Profibus-DP - <i>MAGRES</i>	
Features	-Mini encoder single- or multiturn / DeviceNet -Magnetic sensing -Resolution: singleturn 12 bit, multiturn 16 bit -Housing ø42 mm	-Encoder single- or multiturn / DeviceNet -Magnetic sensing -Resolution: singleturn 12 bit, multiturn 16 bit -Integrated fieldbus interface	-Encoder multiturn / DeviceNet -Optical sensing -Resolution: singleturn 13 bit, multiturn 16 bit -Clamping or synchro flange	-Encoder multiturn / Profibus-DP -Magnetic sensing -Resolution: singleturn 13 bit, multiturn 16 bit -Integrated fieldbus interface	
Voltage supply	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
Total resolution	28 bit	28 bit	29 bit	29 bit	
Interface	DeviceNet	DeviceNet	DeviceNet	Profibus-DPV0	
Operating temperature	-20...+85 °C	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-20...+85 °C	
Housing	ø42 mm	ø58 mm	ø58 mm	ø58 mm	
Shaft diameter	ø6 mm / ø10 mm	ø6 mm / ø10 mm	ø6 mm / ø10 mm	ø12 mm end shaft	
Protection DIN EN 60529	IP 65	IP 65	IP 54 IP 65	IP 65	
E-connection	Connector or cable	Connector or cable	Connector	Male/female connector M12, connector M8	

Absolute encoders - bus interfaces





Absolute encoders - bus interfaces

- CANopen, DeviceNet, Profibus, SSI, EtherCAT, RS485
- Hollow shaft, end shaft and cone shaft
- Shaft encoders with clamping and synchro flange
- Singleturn and multiturn encoders
- Optical and magnetic sensing
- Resolution: singleturn 12-15 bit
- Resolution: multiturn 12-16 bit
- High resistance to shock and vibrations
- Electronic setting of zero point

				
BMMV 58 Profibus-DP - MAGRES	HMG 11, HMG 11 + FSL	AMG 11, AMG 11 + FSL	ATD 4B A 4 Y11	GXM7S - RS485, GXM7W - RS485
- Encoder multiturn / Profibus-DP - Magnetic sensing - Resolution: singleturn 13 bit, multiturn 16 bit - Integrated fieldbus interface	- Encoder multiturn / SSI / Profibus / CANopen - Optical sensing - Resolution: singleturn 13 bit, multiturn 12 bit / 16 bit - Hollow shaft, end shaft or cone shaft ø16-20 mm	- Encoder multiturn / SSI / Profibus / CANopen - Optical sensing - Resolution: singleturn 13 bit, multiturn 12 bit / 16 bit - EURO-flange B10 / shaft ø11 mm	- Encoder single- or multiturn / EtherCAT - Optical sensing - Resolution: singleturn 15 bit, multiturn 16 bit - Hollow shaft ø20-27 mm	- Encoder multiturn / RS485 - Optical sensing - Resolution: singleturn 13 bit, multiturn 12 bit - End shaft ø12 mm / ø14 mm - Clamping flange or synchro flange
10...30 VDC	9...30 VDC	9...30 VDC	10...30 VDC	10...30 VDC
29 bit	29 bit	29 bit	31 bit	25 bit
Profibus-DPV0	SSI Profibus-DPV0 CANopen	SSI Profibus-DPV0 CANopen	EtherCAT	RS485
-20...+85 °C	-20...+85 °C	-20...+85 °C	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)
ø58 mm	ø122 mm	ø122 mm	ø80 mm	ø58 mm
ø6 mm / ø10 mm	ø16-20 mm hollow, end or cone shaft	ø11 mm	ø20-27 mm hollow shaft	ø12-14 mm end shaft ø6 mm / ø10 mm
IP 65	IP 67	IP 67	IP 65	IP 54 IP 65
Male/female connector M12, connector M8	Terminal box/ bus cover	Terminal box/ bus cover	Male M12, A-coded, female M12, D-coded	Connector or cable

Absolute encoders - modular bus covers

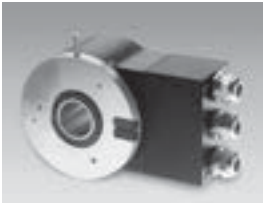






				
Model	BMSH 58, BMMH 58 flexible - <i>MAGRES</i>	GXAMS, GXMMS - <i>multivo</i>	GBAMS, GBMMS - <i>multivoPlus</i>	G0AMH, G0MMH - <i>multivo</i>
Features	<ul style="list-style-type: none"> - Encoder single- or multiturn / bus cover - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 18 bit - Modular fieldbus interfaces 	<ul style="list-style-type: none"> - Encoder single- or multiturn / bus cover - Optical sensing - Resolution: singleturn 13 bit, multiturn 16 bit - End shaft $\varnothing 12$ mm / $\varnothing 14$ mm 	<ul style="list-style-type: none"> - Encoder single- or multiturn / bus cover - Optical sensing - High total resolution max. 31 bit - End shaft $\varnothing 12$ mm / $\varnothing 14$ mm 	<ul style="list-style-type: none"> - Encoder single- or multiturn / bus cover - Optical sensing - Resolution: singleturn 13 bit, multiturn 16 bit - Hollow shaft max. $\varnothing 14$ mm
Voltage supply	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Total resolution	30 bit	29 bit	31 bit	29 bit
Interface	Profibus-DPV0 / V2 CANopen DeviceNet EtherCAT	Profibus-DPV0 / V2 CANopen DeviceNet EtherCAT Fiber-optic bus SSI	Profibus-DPV0 / V2 CANopen DeviceNet EtherCAT Fiber-optic bus SSI	Profibus-DPV0 CANopen DeviceNet
Operating temperature	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)
Housing	$\varnothing 58$ mm	$\varnothing 58$ mm	$\varnothing 58$ mm	$\varnothing 58$ mm
Shaft diameter	$\varnothing 12$ mm end shaft	$\varnothing 12$ -14 mm end shaft	$\varnothing 12$ -14 mm end shaft	$\varnothing 12$ -14 mm hollow shaft
Protection DIN EN 60529	IP 65	IP 54	IP 54	IP 54

Absolute encoders - modular bus covers




Absolute encoders - modular bus covers

- Modular bus interfaces
- CANopen, DeviceNet, Profibus, EtherCAT, fiber-optic, SSI
- End shaft and hollow shaft encoders
- Shaft encoders with clamping and synchro flange
- Optical and magnetic sensing
- Resolution: singleturn 12-18 bit
- Resolution: multiturn 16-18 bit
- High resistance to shock and vibrations

				
G1MMH, G2MMH - multivo	GBAMH, GBMMH - multivoPlus	BMSV 58, BMMV 58 flexible - MAGRES	GXAMW, GXMMW - multivo	GBAMW, GBMMW - multivoPlus
- Encoder multiturn / bus cover - Optical sensing - Resolution: singleturn 13 bit, multiturn 16 bit - Hollow shaft of 1" and 2" diameter	- Encoder single- or multiturn / bus cover - Optical sensing - High total resolution max. 31 bit - Hollow shaft max. ø14 mm	- Encoder single- or multiturn / bus cover - Magnetic sensing - Resolution: singleturn 12 bit, multiturn 18 bit - Modular fieldbus interfaces	- Encoder single- or multiturn / bus cover - Optical sensing - Resolution: singleturn 13 bit, multiturn 16 bit - Clamping or synchro flange	- Encoder single- or multiturn / bus cover - Optical sensing - High total resolution max. 31 bit - Clamping or synchro flange
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
29 bit	31 bit	30 bit	29 bit	31 bit
Profibus-DPV0 CANopen DeviceNet	Profibus-DPV0 CANopen DeviceNet	Profibus-DPV0 / V2 CANopen DeviceNet EtherCAT	Profibus-DPV0 / V2 CANopen DeviceNet EtherCAT Fiber-optic bus SSI	Profibus-DPV0 / V2 CANopen DeviceNet EtherCAT Fiber-optic bus SSI
-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)	-20...+85 °C	-25...+85 °C -40...+85 °C (optional)	-25...+85 °C -40...+85 °C (optional)
ø90 mm ø116 mm	ø58 mm	ø58 mm	ø58 mm	ø58 mm
ø25.4 / ø50.8 mm hollow shaft	ø12-14 mm hollow shaft	ø6 mm / ø10 mm	ø6 mm / ø10 mm	ø6 mm / ø10 mm
IP 54	IP 54	IP 65	IP 54 IP 65	IP 54 IP 65

Encoders without bearing



					
Model	MEFK 10 - EcoSpin	MDFK 08	MDFK 10	ITD 67 A 4 Y 9	
Features	<ul style="list-style-type: none"> -Magnetic sensor with rotor -Resolution max. 2880 steps -Output signals A 90° B -Output circuit: push-pull -Non-contact, wear-free sensing system 	<ul style="list-style-type: none"> -Magnetic sensor with rotor -Resolution max. 4096 steps -Output signals A 90° B or A 90° B +N -Output circuits: push-pull and RS422 -Non-contact, wear-free sensing system 	<ul style="list-style-type: none"> -Magnetic sensor with rotor -Resolution max. 16384 steps -Output signals A 90° B or A 90° B +N -Output circuits: push-pull and RS422 -Non-contact, wear-free sensing system 	<ul style="list-style-type: none"> -Magnetic sensor with rotor -Magnetic sensing -Resolution 20 and 50 pulses -Output circuits: HTL -Without own bearings 	
Voltage supply	8...28 VDC	8...30 VDC 5 VDC ±5 %	8...30 VDC 5 VDC ±5 %	8...24 VDC	
Output signals	A 90° B	A 90° B A 90° B, N A 90° B + inverted A 90° B, N + inverted	A 90° B, N A 90° B, N + inverted	A, B	
System accuracy	±0.8 °	±0.5 °	±0.5 °	-	
Jitter	≤20 %	≤15 %	≤15 %	-	
Angular range	-	-	-	-	
Housing	Rectangular 10 mm	Rectangular 8.5 mm	Rectangular 10 mm	-	
Protection DIN EN 60529	IP 67	IP 67	IP 67	IP 66	