

ROTACOD

Absolute encoder with Profibus DP output

Series

Ax58 PB • Ax58S PB • Ax58C PB

- Standard Profibus encoder
- Single & multi turn versions
- Connection via M12 or PG outlet
- Roundloop function
- Resistant against magnetic fields



Ax58 PB • Ax58C PB

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65 (with assembled connection cap)
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	PG outlet or M12 plugs
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

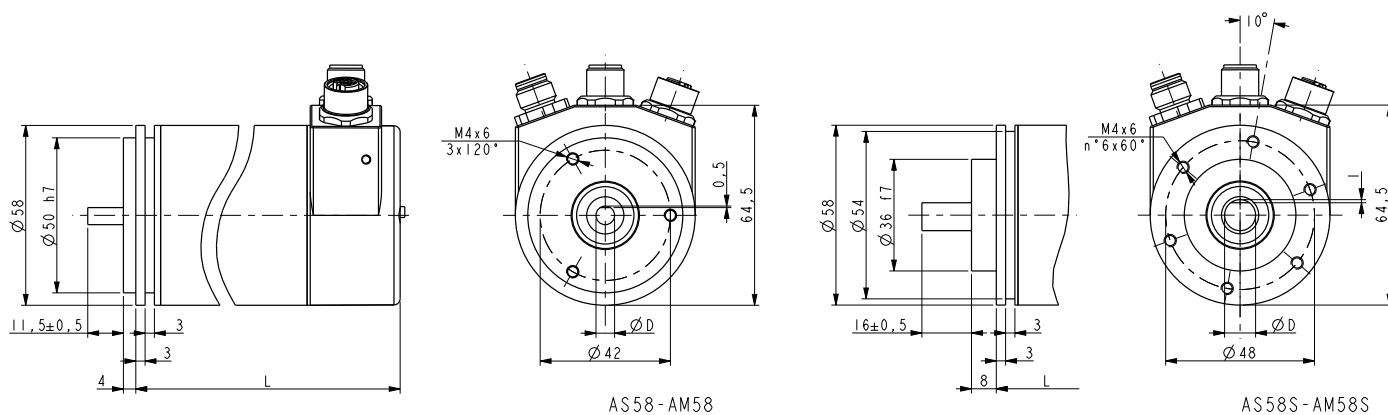
Resolution:	8192 cpr x 4096 turns max.
Accuracy:	± 0,04°
Counting frequency:	100 kHz max.
Power supply:	+10V +30V
Power consumption:	2,6 W max.
Interface:	Profibus-DP V0, Class 2 (RS485)
Programmable parameters:	<ul style="list-style-type: none"> • counting direction • scaling factor • preset value • offset value
Baudrate:	12 Mbit/sec. max.
Device address:	programmable by Dip-switches
Bus connection:	galvanically separated by opto-couplers
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

ACCESSORIES

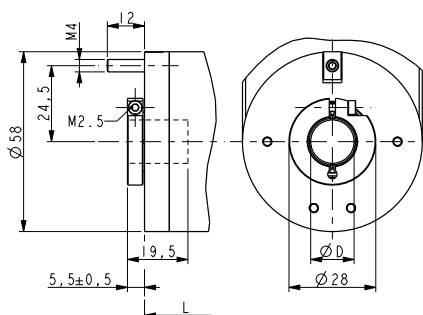
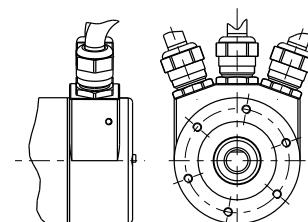
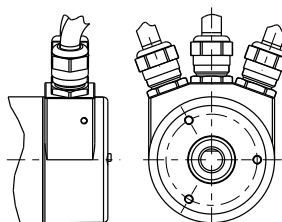
CC-PB:	connection cap with PG outlet
CC-PB-C:	connection cap with M12 plugs
EC-M12MP-LK-PB-xx:	M12 plug cordset with xx m cable
EC-M12FP-LK-PB-xx:	M12 conn. cordset with xx m cable
EC-M12PP-LK-PBS-xx:	M12 power supply cordset with xx m cable
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps



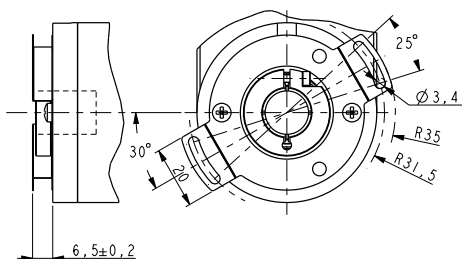
AS58-AM58

AS58S-AM58S

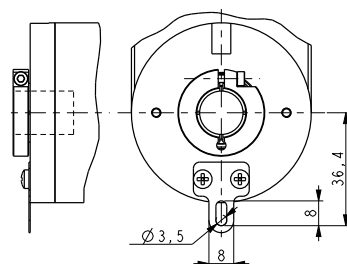
SERIES	L	D
AS58	83	6-10h6 8-12g6
AM58	98	
AS58S	82	6-8-10h6 12g6
AM58S	97	
ASCXX	88	14-15H7
AMCXX	98	



ASC58-AMC58



ASC59-AMC59



ASC60-AMC60

Order code - Single turn

AS58	XX	/	PB	-	XX	/Sxxx
AS58S	(a)				(b)	(c)
ASC58						
ASC59						
ASC60						

Order code - Multi turn

AM58	XX/XXXX	PB	-	XX	/Sxxx
AM58S	(a)			(b)	(c)
AMC58					
AMC59					
AMC60					

(a) RESOLUTION 12 = 4096 cpr 13 = 8192 cpr	10 = 10 mm
	12 = 12 mm
(b) SHAFT DIAMETER 6 = 6 mm 8 = 8 mm P9 = 9.52 mm, 3/8"	14 = 14 mm (ASCxx)
	15 = 15 mm (ASCxx)
(c) CUSTOM VERSION	

(a) RESOLUTION 12/4096 = 4096 cpr x 4096 turns 13/4096 = 8192 cpr x 4096 turns	10 = 10 mm
	12 = 12 mm
(b) SHAFT DIAMETER 6 = 6 mm 8 = 8 mm P9 = 9.52 mm, 3/8"	14 = 14 mm (AMCxx)
	15 = 15 mm (AMCxx)
(c) CUSTOM VERSION	

CONNECTION CAP (to be ordered separately)	
CC-PB:	Connection cap with PG outlet
CC-PB-C:	Connection cap with M12 connectors

Cordsets (standard lengths, other on request)	
EC-M12MP-LK-PB-5:	M12 plug cordset with 5 m cable
EC-M12FP-LK-PB-5:	M12 connector cordset with 5 m cable
EC-M12PP-LK-PBS-5:	M12 power supply cordset with 5 m cable
EC-M12MP-LK-PB-10:	M12 plug cordset with 10 m cable
EC-M12FP-LK-PB-10:	M12 connector cordset with 10 m cable
EC-M12PP-LK-PBS-10:	M12 power supply cordset with 10 m cable

ROTACOD

Absolute encoders with CANopen output

Series

Ax58 CB • Ax58S CB • Ax58 CB

- Standard CANopen encoder
- Single & multi turn versions
- Connection via M12 or PG outlet
- Roundloop function & velocity output
- Resistant against magnetic fields

CANopen



Ax58 CB • Ax58S CB

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65 (with assembled connection cap)
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	PG outlet or M12 plugs
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

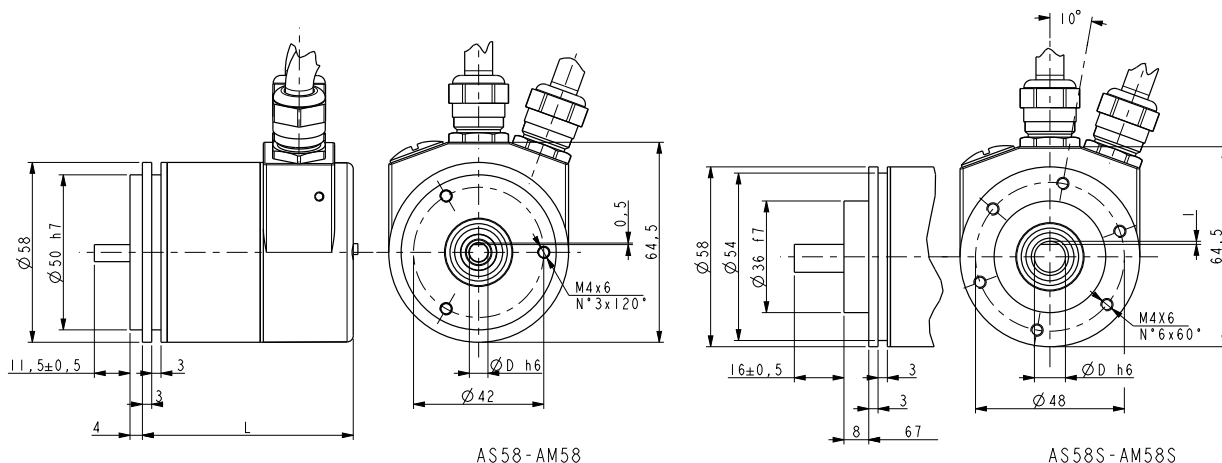
Resolution:	8192 cpr x 4096 turns max.
Accuracy:	± 0,04°
Counting frequency:	100 kHz max.
Power supply:	+10V +30V
Power consumption:	2,6 W max.
Interface:	CANopen DS301, DS406, Class 2 (RS485)
Programmable parameters:	<ul style="list-style-type: none"> • counting direction • scaling factor • preset value • two software limit switches
Baudrate:	programmable by Dip-switches
Device address:	programmable by Dip-switches
Bus connection:	galvanically separated by opto-couplers
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

MATERIALS

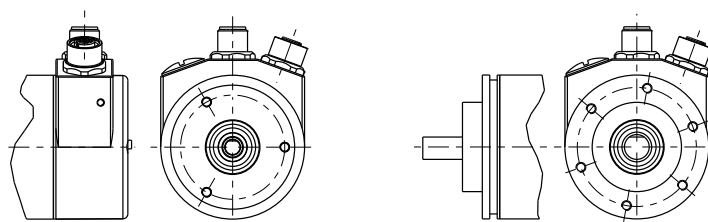
Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

ACCESSORIES

CC-CB:	connection cap with PG outlet
CC-CB-C:	connection cap with M12 plugs
EC-M12MC-LK-CB-xx:	M12 plug cordset with xx m cable
EC-M12FC-LK-CB-xx:	M12 conn. cordset with xx m cable
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps



SERIES	L	D
AS58	83	6-10h6 8-12g6
AM58	98	
AS58S	82	6-8-10h6 12g6
AM58S	97	
ASCXX	88	14-15H7
AMCXX	98	



ASC58-AMC58

ASC59-AMC59

ASC60-AMC60

Order code - Single turn

AS58	XX	/	CB	-	XX	/Sxxx
AS58S	(a)				(b)	(c)
ASC58						
ASC59						
ASC60						

Order code - Multi turn

AM58	XX/XXXX	CB	-	XX	/Sxxx
AM58S	(a)			(b)	(c)
AMC58					
AMC59					
AMC60					

(a) RESOLUTION

12 = 4096 cpr
13 = 8192 cpr

10 = 10 mm
12 = 12 mm
14 = 14 mm (ASCxx)
15 = 15 mm (ASCxx)

(b) SHAFT DIAMETER

6 = 6 mm
8 = 8 mm
P9 = 9.52 mm, 3/8"

(c) CUSTOM VERSION

(a) RESOLUTION

12/4096 = 4096 cpr x 4096 turns
13/4096 = 8192 cpr x 4096 turns

10 = 10 mm
12 = 12 mm
14 = 14 mm (AMCxx)
15 = 15 mm (AMCxx)

(b) SHAFT DIAMETER

6 = 6 mm
8 = 8 mm
P9 = 9.52 mm, 3/8"

(c) CUSTOM VERSION

CONNECTION CAP
(to be ordered separately)

CC-CB: Connection cap with PG outlet
CC-CB-C: Connection cap with M12 connectors

Cordsets
(standard lengths, other on request)

EC-M12MC-LK-CB-5: M12 plug cordset with 5 m cable
EC-M12FC-LK-CB-5: M12 connector cordset with 5 m cable
EC-M12MC-LK-CB-10: M12 plug cordset with 10 m cable
EC-M12FC-LK-CB-10: M12 connector cordset with 10 m cable

ROTACOD

Absolute encoders with Fieldbus interface

Series

Hx58 FB • Hx58S FB • HxC58 FB

- High resolution Fieldbus encoders
- Single turn resolution 262144 cpr
- Multi turn resolution 65536 cpr x 16384 turns
- Roundloop function & velocity output
- Bus cover with M12 or PG outlet
- Precise & fast optical sensing
- Resistant against magnetic fields



HxC58 FB • Hx58S FB

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65 (with assembled connection cap)
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400x10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	PG outlet or M12 plugs
Weight:	~ 300 g (10,5 oz)

ELECTRICAL SPECIFICATIONS

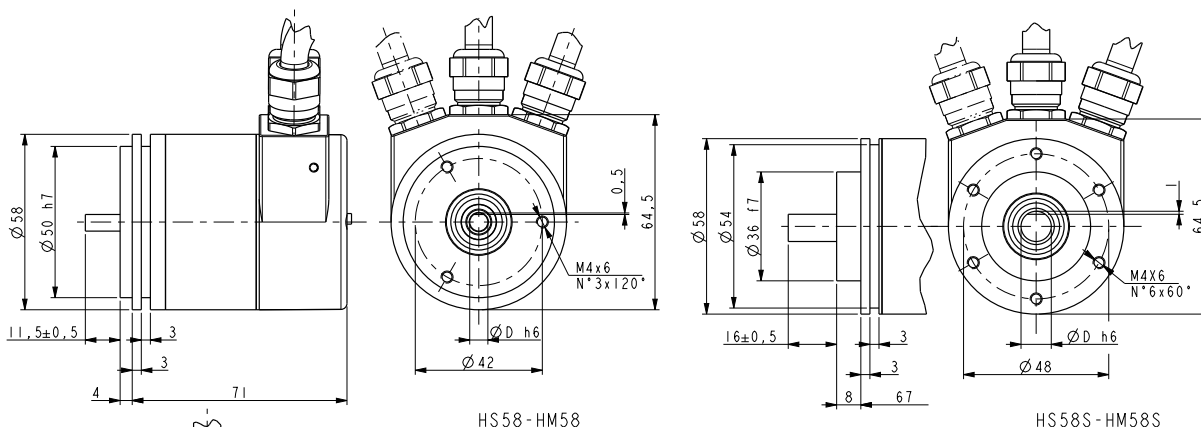
Resolution:	262144 cpr or 65536 cpr x 16384 turns
Accuracy:	± 0,007°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	2,2 W
Interface:	Profibus-DP V0 CANopen DS301, DS406 CANlift DS301, DSP417 DeviceNet
Programmable parameters:	standard functions see user manual for each fieldbus • velocity output • round loop function
Baudrate:	programmable by Dip-switches
Device address:	programmable by Dip-switches
Bus connection:	galvanically separated by opto-couplers
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

MATERIALS

Flange:	anticorrosional, UNI EN AW-6082
Housing:	anticorrosional, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

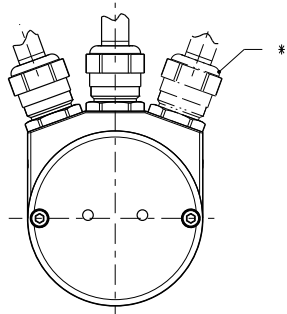
ACCESSORIES

BC-PB:	Profibus conn. cap with PG outlet
BC-PB-C:	Profibus conn. cap with M12 plugs
BC-CB:	CANopen conn. cap with PG outlet
BC-CB-C:	CANopen conn. cap with M12 plugs
BC-FDV:	DeviceNet conn. cap with PG outlet
BC-FDV-C:	DeviceNet conn. cap with M12 plugs
BC-I6:	CANlift conn. cap with PG outlet
BC-I6-C:	CANlift conn. cap with M12 plugs
EC-M12xx-LK-xx-xx:	M12 cordset with xx m cable
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps

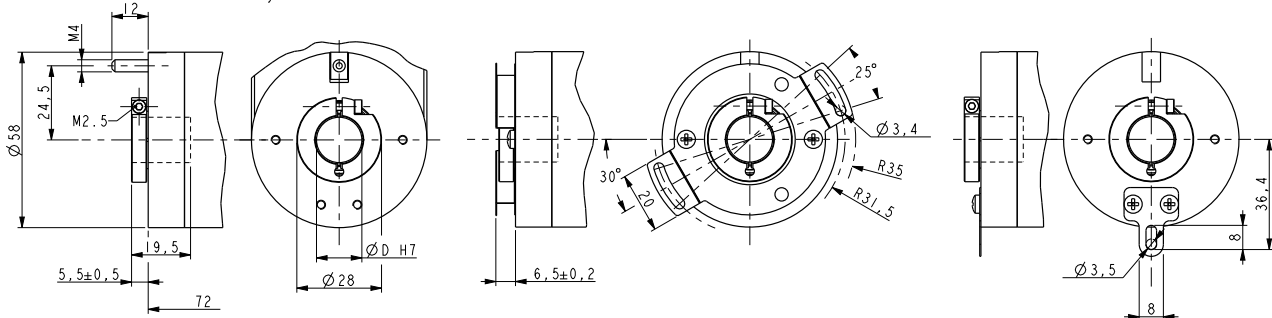


HS58-HM58

HS58S-HM58S



* Only for ProfiBus



HSC58-HMC58

HSC59-HMC59

HSC60-HMC60

Order code - Single turn

HS58	XX	/	FB	-	XX	/Sxxx
HS58S	(a)				(b)	(c)
HSC58						
HSC59						
HSC60						

Order code - Multi turn

HM58	XX/XXXXX	/	FB	-	XX	/Sxxx
HM58S	(a)				(b)	(c)
HMC58						
HMC59						
HMC60						

(a) RESOLUTION
 18 = 262144 cpr
 10 = 10 mm
 12 = 12 mm
 14 = 14 mm (only HSCxx)
 15 = 15 mm (only HSCxx)

(b) SHAFT DIAMETER
 6 = 6 mm
 8 = 8 mm
 P9 = 9.52 mm, 3/8"

(c) CUSTOM VERSION

(a) RESOLUTION
 16/16384 = 65536 cpr x 16384 turns
 10 = 10 mm
 12 = 12 mm
 14 = 14 mm (only HMCxx)
 15 = 15 mm (only HMCxx)

(b) SHAFT DIAMETER
 6 = 6 mm
 8 = 8 mm
 P9 = 9.52 mm, 3/8"

(c) CUSTOM VERSION

CONNECTION CAP (to be ordered separately)

BC	-	XX	-	X
		(a)		(b)

(a) INTERFACE
 PB = Profibus-DP V1
 CB = CANopen DS301, DS406
 FDV = DeviceNet
 I6 = CANlift DS301, DSP417

(b) CONNECTIONS
 - = PG output
 C = M12 connector output

Cordsets
 (standard lengths, other on request)

EC-M12MC-LK-CB-5:	CAN/DeviceNet M12 plug cordset with 5 m cable
EC-M12FC-LK-CB-5:	CAN/DeviceNet M12 conn. cordset with 5 m cable
EC-M12MC-LK-CB-10:	CAN/DeviceNet M12 plug cordset with 10 m cable
EC-M12FC-LK-CB-10:	CAN/DeviceNet M12 conn. cordset with 10 m cable
EC-M12MP-LK-PB-5:	Profibus M12 plug cordset with 5 m cable
EC-M12FP-LK-PB-5:	Profibus M12 connector cordset with 5 m cable
EC-M12PP-LK-PBS-5:	Profibus M12 power supply cordset with 5 m cable
EC-M12MP-LK-PB-10:	Profibus M12 plug cordset with 10 m cable
EC-M12FP-LK-PB-10:	Profibus M12 connector cordset with 10 m cable
EC-M12PP-LK-PBS-10:	Profibus M12 pwr supply cordset with 10 m cable

ROTACOD

Absolute encoder

Series

AM58K



- Profibus and CANopen encoder
- Stainless steel housing suitable for food industry
- IP67 washdown protection
- Bus cover with M12 connectors
- Roundloop function
- Position & velocity output (CANopen)



AM58K

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP67 (with assembled connection cap)
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400x10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connection:	connection cap with M12 connectors
Weight:	~ 800 g (28,2 oz)

ELECTRICAL SPECIFICATIONS

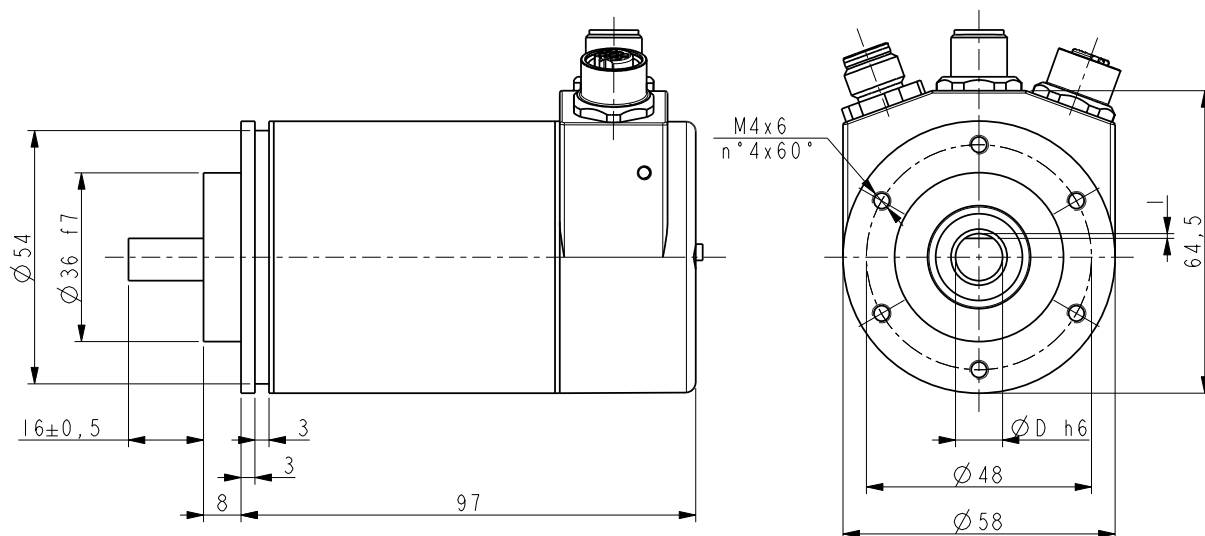
Resolution:	13 + 12 bit (8192 cpr x 4096 turns)
Accuracy:	± 0,04°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	~ 2,2 W
Interface:	Profibus-DP V0 CANopen DS301, DS406
Programmable parameters:	<ul style="list-style-type: none"> • counting direction • resolution up to 8192 counts/rev. and 4096 rev. <ul style="list-style-type: none"> • preset value • offset value • position/velocity output other parameters see manual
Baudrate:	CANopen: 1 MHz max. (programmable by Dip-switches) Profibus: max 12 Mbit/sec.
Device address:	programmable by Dip-switches
Bus connection:	galvanically separated by opto-couplers
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

MATERIALS

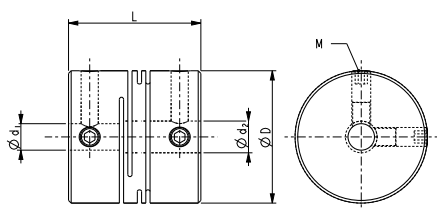
Flange:	AISI 410 stainless steel
Housing:	AISI 410 stainless steel
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, AISI 303

ACCESSORIES

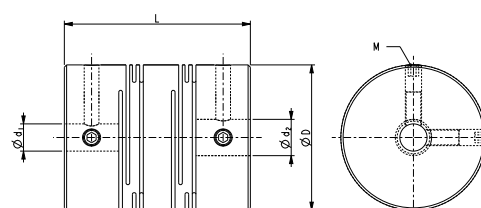
MWSS, MSTs:	stainless steel flexible couplings
EC-M12MP-LK-PB-x:	PB M12 plug cordset x m cable
EC-M12FP-LK-PB-x:	PB M12 conn. cordset x m cable
EC-M12PP-LK-PBS-x:	PB M12 cordset power supply x m cable
EC-M12MC-LK-CB-x:	CB M12 plug cordset x m cable
EC-M12FC-LK-CB-x:	CB M12 conn. cordset x m cable



AM58K



MWSS



MST5

Order code

AM58K	XX/XXXX Ⓐ	XX Ⓑ	-	XX Ⓒ	/Sxxx Ⓓ
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Ⓐ RESOLUTION

13/4096 = 8192 cpr x 4096 turns

Ⓑ SHAFT DIAMETER

PB = Profibus DP

CB= CANopen

Ⓒ SHAFT DIAMETER

6 = 6 mm

8 = 8 mm

P9 = 9.52 mm, 3/8"

10 = 10 mm

12 = 12 mm

Ⓓ CUSTOM VERSION

ROTACOD

Absolute encoders with CANopen output

Series

Ax58 • Ax58S • AxC58 EasyCAN

- Compact CAN single and multi turn encoders
- High resolution, 18 bits or 30 bits
- CANopen and CANlift protocols
- Point-to-point connection
- Velocity output & roundloop function
- Resistant against magnetic fields

CANopen



AS58 EasyCan

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000Hz
Protection:	IP67, IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	∅ 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	∅ 14, 15
Reducing sleeves BR1-xx from ∅ 15 mm to:	∅ 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque (at 20°C):	< 1 Ncm (typical)
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	M12 plug or cable output 2 m (6,56 ft)
Weight:	~ 250 g (8,8 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

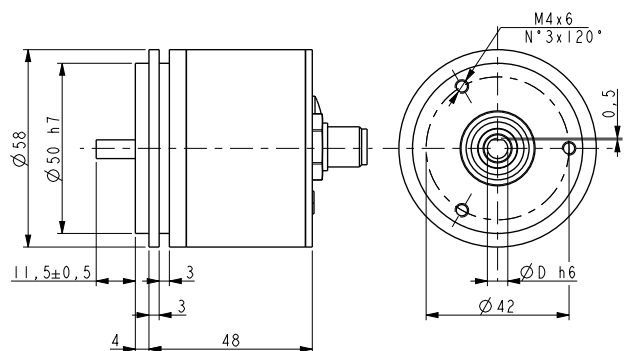
Resolution:	single turn = 4096, 65536, 262144 cpr multi turn = 65536 cpr x 16384 turns
Accuracy:	± 0,007°
Counting frequency:	220 kHz max.
Power supply:	+10V +30V
Power consumption:	AS = 1.2 W, AM = 3 W
Interface:	CANopen DS301, DS406, Class 2 (RS485) CANlift DS301, DSP417, Class 2 (RS485)
Programmable parameters:	<ul style="list-style-type: none"> • Baudrate • Device address (Node ID) • Scaling function • Counting direction • Preset value • Two software limit switches • Transmission mode: Cyclic, Sync • Velocity output • Round loop function
Bus termination:	programmable by Dip-switches
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

MATERIALS

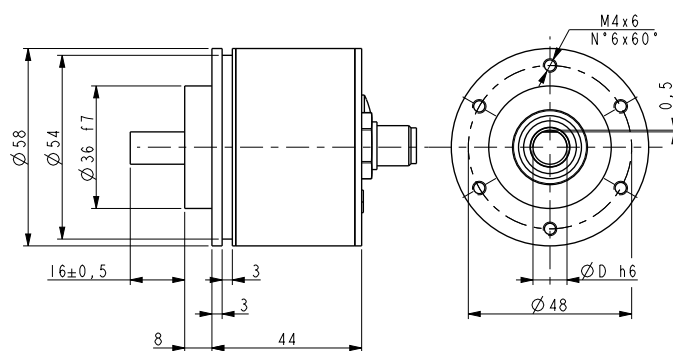
Housing:	anticorrosive, UNI EN AW-6082
Flange:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305

ACCESSORIES

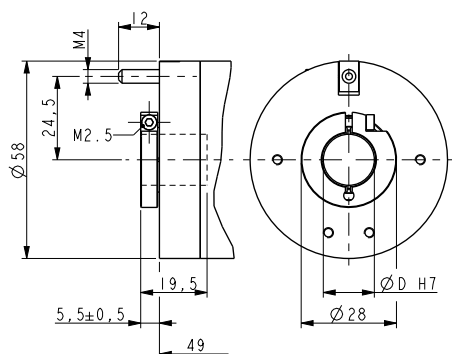
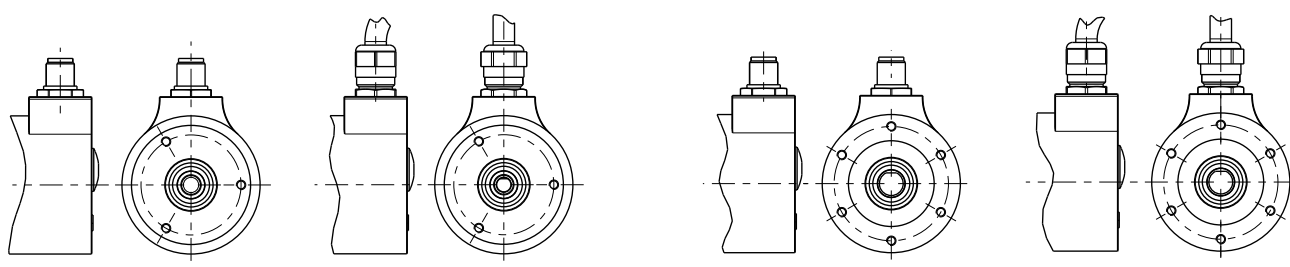
EM12FC:	M12 5 pin mating connector
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps



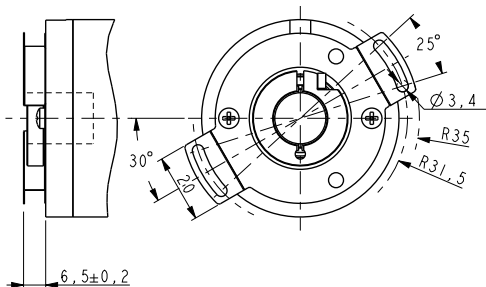
AS58



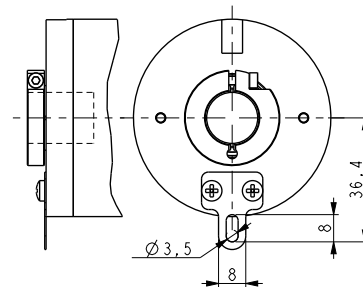
AS58S



ASC58



ASC59



ASC60

Order code - Single turn

AS58	XX	/	XX	-	XX	-	X	XX	/Sxxx
AS58S	(a)		(b)		(c)		(d)	(e)	(f)
ASC58									
ASC59									
ASC60									

(a) RESOLUTION

12 = 4096 cpr
16 = 65536 cpr
18 = 262144 cpr

(b) INTERFACE

CB = CANopen (DS301, DS406)
I6 = CANlift (DS301, DSP417)

(c) SHAFT DIAMETER

6 = 6 mm
8 = 8 mm
P9 = 9.52 mm, 3/8"
10 = 10 mm
12 = 12 mm
14 = 14 mm (only ASCxx)
15 = 15 mm (only ASCxx)

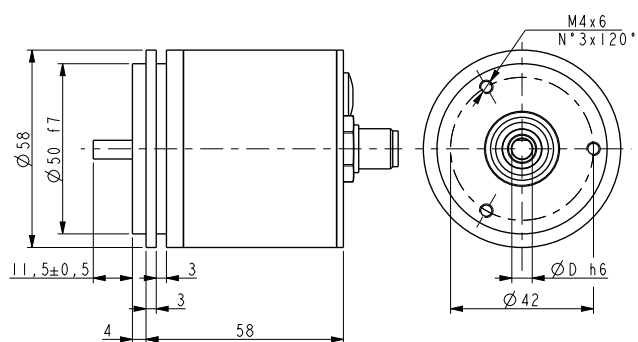
(d) CONNECTION POSITION

- = axial
R = radial

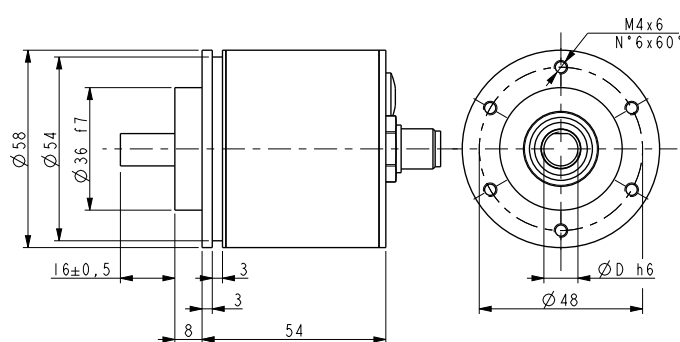
(e) CONNECTIONS

L2 = cable output 2 m (standard)
L5 = cable output 5 m
M = M12 5 pin plug

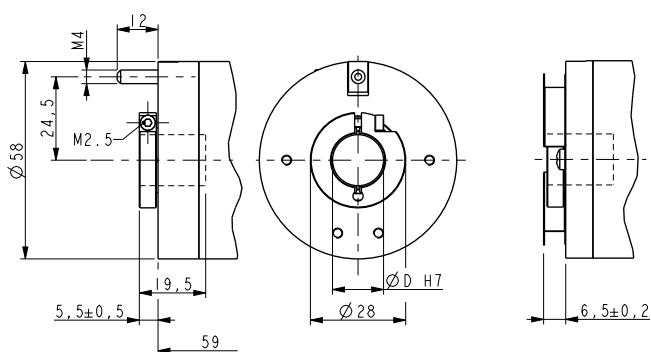
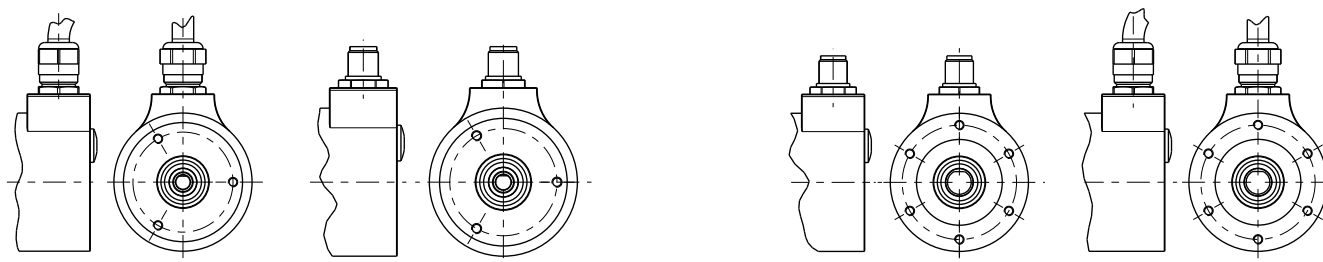
(f) CUSTOM VERSION



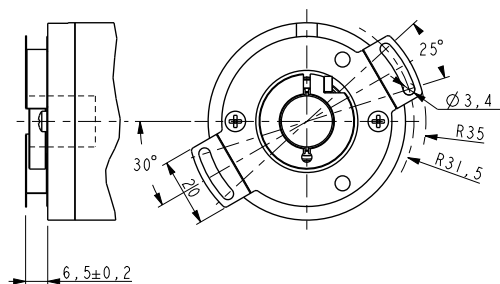
AM58



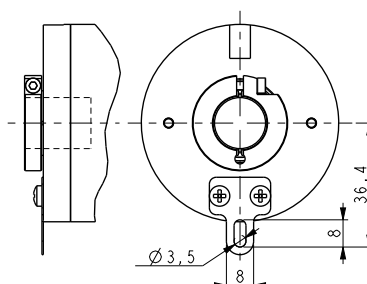
AM58S



AMC58



AMC59



AMC60

Order code - Multi turn

AM58	XX/XXXXX	XX	-	XX	-	X	XX	/Sxxx
AM58S	(a)	(b)		(c)		(d)	(e)	(f)
AMC58								
AMC59								
AMC60								

<p>(a) RESOLUTION 16/16384 = 65536 cpr x 16384 turns</p> <p>(b) INTERFACE CB = CANopen (DS301, DS406) I6 = CANlift (DS301, DSP417)</p>	<p>(c) SHAFT DIAMETER 6 = 6 mm 8 = 8 mm P9 = 9.52 mm, 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (only AMCxx) 15 = 15 mm (only AMCxx)</p>	<p>(d) CONNECTION POSITION - = axial R = radial</p> <p>(e) CONNECTIONS L2 = cable output 2 m (standard) L5 = cable output 5 m M = M12 5 pin plug</p>	<p>(f) CUSTOM VERSION</p>
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ROTACOD

Absolute encoders with Ethercat interface

Series

EM58 • HS58 • HM58 EC



- Single & multi turn EtherCAT encoders
- Cycle time only 62,5 μ s (position refresh)
- Fast and precise optical sensing
- Resistant against magnetic fields



EM58 • HS58 • HM58 EC

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

Resolution:	HS: 262144 cpr EM: 4096 cpr x 16384 turns HM: 65536 cpr x 16384 turns
Accuracy:	HS, HM: $\pm 0,007^\circ$ - EM: $\pm 0,5^\circ$
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	2,2 W max.
Interface:	EtherCAT, CoE (CANopen over EtherCAT)
Programmable parameters:	see user manual
Communication modes:	Freerun, Sync-mode, Distributed clock
Cycle time:	$\geq 62,5 \mu$ s
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

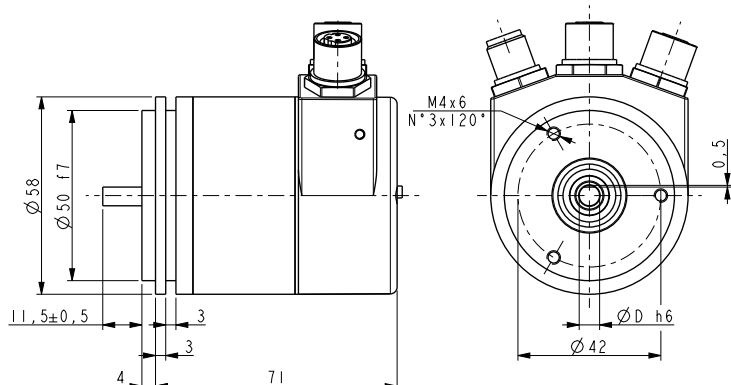
MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

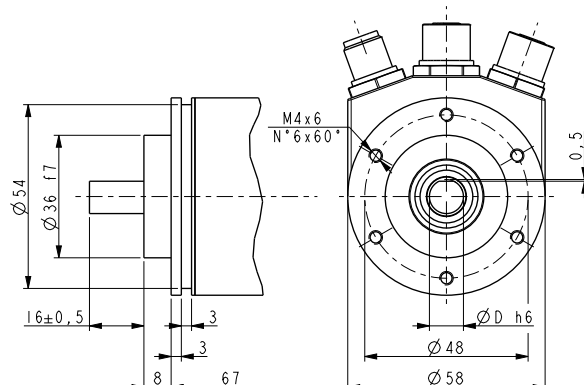
ACCESSORIES

PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
EC-M12ME-GN-EC-xx:	M12 cordset with x m cable
EC-M12PP-LK-PBS-xx:	M12 power supply cordset with x m cable

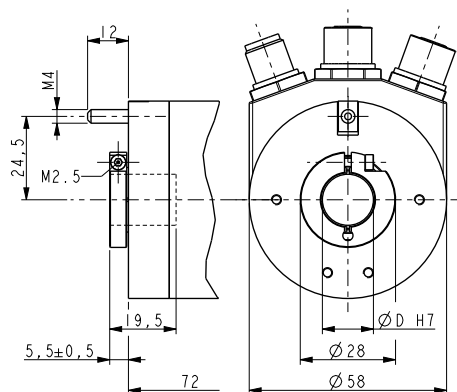
Specifications subject to changes without prior notice



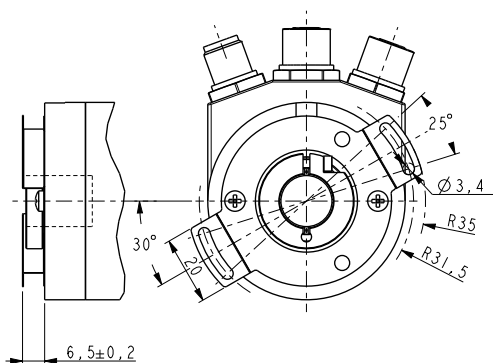
EM58 • HS58 • HM58 EC



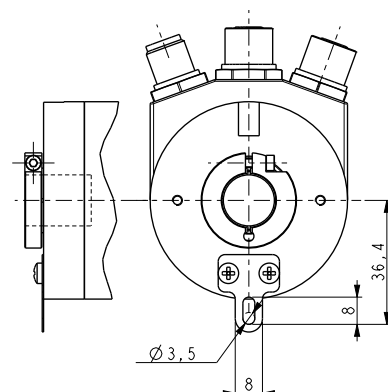
EM58 • HS58S • HM58S EC



EM58 • HSC58 • HMC58 EC



EM58 • HSC59 • HMC59 EC



EM58 • HSC60 • HMC60 EC

Order code - Single turn

HS58	XX	/	EC	-	XX	/Sxxx
HS58S	Ⓐ				Ⓑ	Ⓒ
HSC58						
HSC59						
HSC60						

Order code - Multi turn

HM58	EM58	XX/XXXXX	EC	-	XX	/Sxxx
HM58S	EM58S	Ⓐ			Ⓑ	Ⓒ
HMC58	EMC58					
HMC59	EMC59					
HMC60	EMC60					

<p>Ⓐ RESOLUTION</p> <p>18 = 262144 cpr</p>	<p>Ⓑ SHAFT DIAMETER</p> <p>6 = 6 mm</p> <p>8 = 8 mm</p> <p>P9 = 9.52 mm, 3/8"</p> <p>10 = 10 mm</p> <p>12 = 12 mm</p> <p>14 = 14 mm (HSCxx)</p> <p>15 = 15 mm (HSCxx)</p>	<p>Ⓒ CUSTOM VERSION</p>
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<p>Ⓐ RESOLUTION</p> <p>12/16384 = 4096 cpr x 16384 turns (EMxx)</p> <p>16/16384 = 65536 cpr x 16384 turns (HMxx)</p>	<p>10 = 10 mm</p> <p>12 = 12 mm</p> <p>14 = 14 mm (EMCxx, HMCxx)</p> <p>15 = 15 mm (EMCxx, HMCxx)</p>	<p>Ⓑ SHAFT DIAMETER</p> <p>6 = 6 mm</p> <p>8 = 8 mm</p> <p>P9 = 9.52 mm, 3/8"</p>	<p>Ⓒ CUSTOM VERSION</p>
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ROTACOD

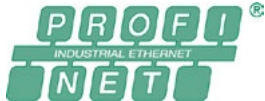
Absolute encoders with Profinet interface

Series

EM58 • HS58 • HM58 PT



- Single & multi turn Profinet encoders
- Fast and precise optical sensing
- Encoder profile PNO No 3.162 V4.1
- Dynamically assigned IP address via DCP



EM58 • HS58 • HM58 PT

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

Resolution:	HS: 262144 cpr EM: 4096 cpr x 16384 turns HM: 65536 cpr x 16384 turns
Accuracy:	HS, HM: ± 0,007° - EM: ± 0,5°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	1,7 W max.
Interface:	Profinet IO
Programmable parameters:	see user manual
Communication modes:	RT2, RT3 (Isochronous)
Cycle time:	≥ 1ms
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

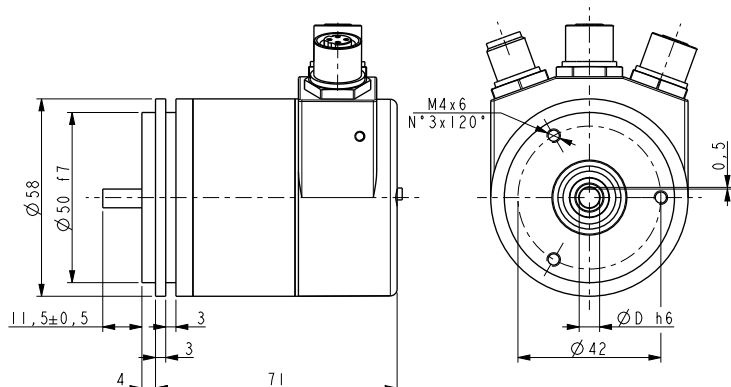
MATERIALS

Flange:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

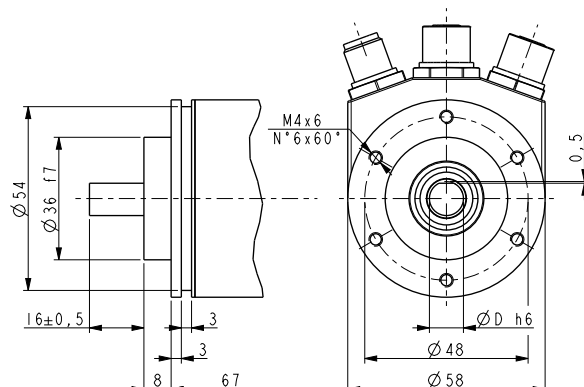
ACCESSORIES

PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
EC-M12ME-GN-EC-xx:	M12 cordset with x m cable
EC-M12PP-LK-PBS-xx:	M12 power supply cordset with x m cable

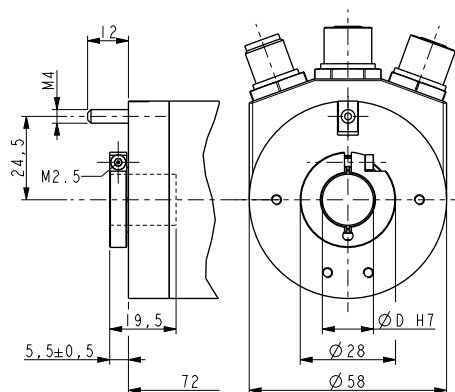
Specifications subject to changes without prior notice



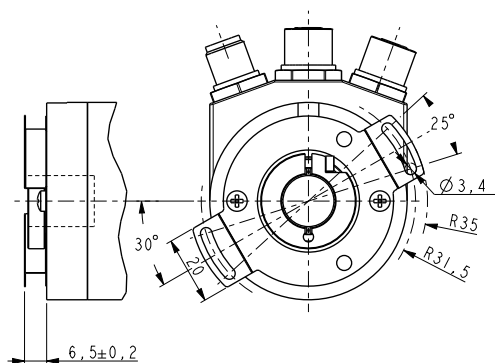
EM58 • HS58 • HM58 PT



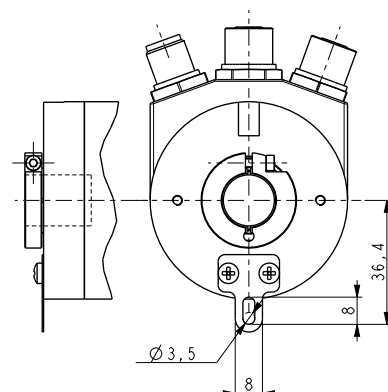
EM58 • HS58S • HM58S PT



EM58 • HSC58 • HMC58 PT



EM58 • HSC59 • HMC59 PT



EM58 • HSC60 • HMC60 PT

Order code - Single turn

HS58	XX	/	PT	-	XX	/Sxxx
HS58S	Ⓐ				Ⓑ	Ⓒ
HSC58						
HSC59						
HSC60						

Order code - Multi turn

HM58	EM58	XX/XXXXX	PT	-	XX	/Sxxx
HM58S	EM58S	Ⓐ			Ⓑ	Ⓒ
HMC58	EMC58					
HMC59	EMC59					
HMC60	EMC60					

<p>Ⓐ RESOLUTION</p> <p>18 = 262144 cpr</p>	<p>Ⓑ SHAFT DIAMETER</p> <p>6 = 6 mm</p> <p>8 = 8 mm</p> <p>P9 = 9.52 mm, 3/8"</p> <p>10 = 10 mm</p> <p>12 = 12 mm</p> <p>14 = 14 mm (HSCxx)</p> <p>15 = 15 mm (HSCxx)</p>	<p>Ⓒ CUSTOM VERSION</p>
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<p>Ⓐ RESOLUTION</p> <p>12/16384 = 4096 cpr x 16384 turns (EMxx)</p> <p>16/16384 = 65536 cpr x 16384 turns (HMxx)</p>	<p>10 = 10 mm</p> <p>12 = 12 mm</p> <p>14 = 14 mm (EMCxx, HMCxx)</p> <p>15 = 15 mm (EMCxx, HMCxx)</p>	<p>Ⓒ CUSTOM VERSION</p>
<p>Ⓑ SHAFT DIAMETER</p> <p>6 = 6 mm</p> <p>8 = 8 mm</p> <p>P9 = 9.52 mm, 3/8"</p>		

ROTACOD

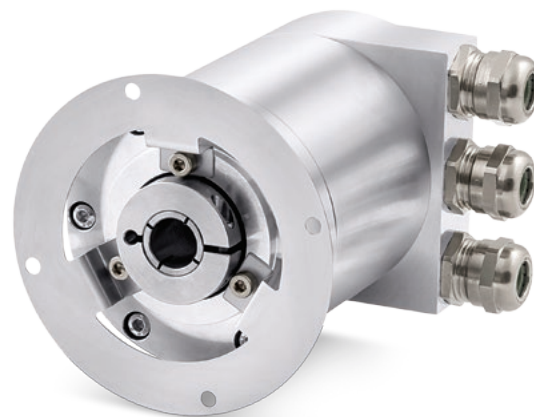
Heavy-duty Fieldbus encoder

Series

XAC77 FB



- Heavy-duty fieldbus encoder
- Single turn (18 bits) and multi turn (30 bits)
- Easy access by removable connection cap
- Profibus, CANopen, DeviceNet interfaces
- Velocity output, roundloop function (CANopen)
- For harsh environment such as steel mills, mobile equipment, construction machinery



XAC77

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP66 (with connection cap assembled), IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 14 mm
Shaft loading (axial, radial):	150 N max.
Shaft rotational speed:	6000 rpm max.
Bearing life:	400x10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	PG outlet
Weight:	~1,3 kg (45,8 oz)

ELECTRICAL SPECIFICATIONS

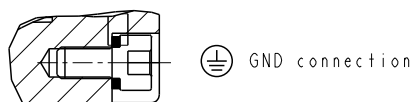
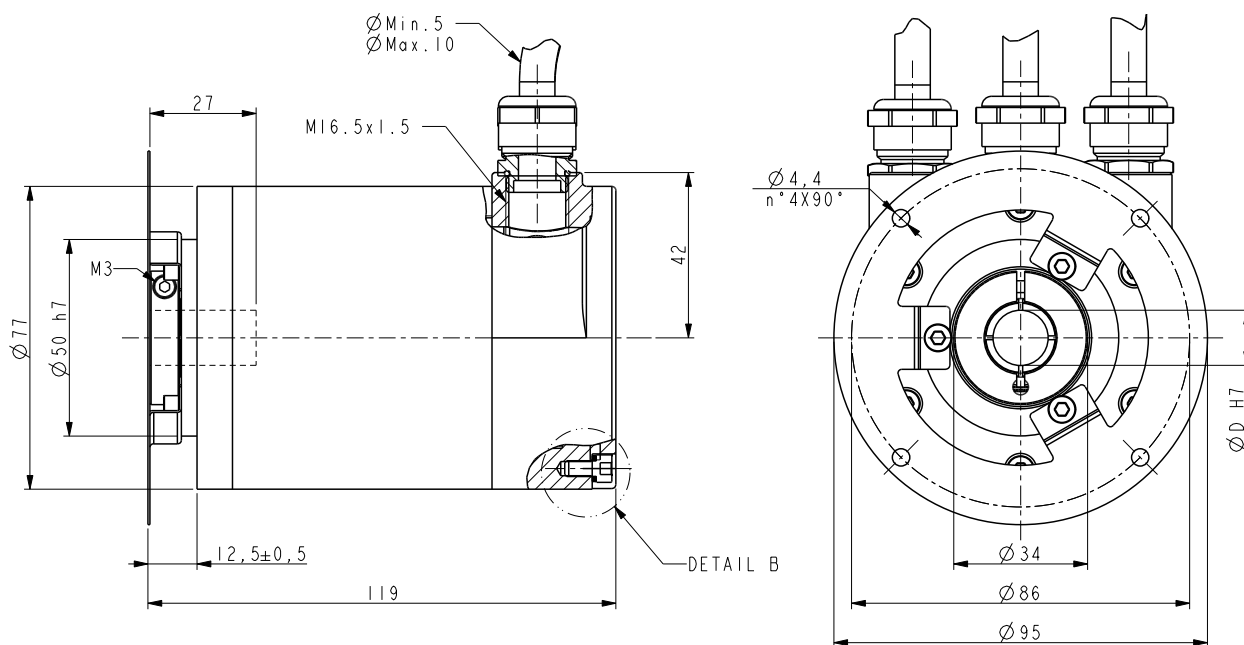
Resolution:	262144 cpr or 65536 cpr x 16384 turns
Accuracy:	± 0,007°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	2,2 W
Programmable parameters:	see user manual for each Fieldbus
Baudrate:	programmable by Dip-switches
Device address:	programmable by Dip-switches
Interface:	Profibus-DP V0 CANopen® DS301, DS406 DeviceNet
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 h min.

MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

ACCESSORIES

LKM-1758:	Ø 10 mm shaft extension
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DETAIL B
SCALA 2,000

XAC77

Order code

XAC77	XX/XXXXX a	XX b	-	XX c	/Sxxx d
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<p>a) RESOLUTION 18/1 = 262144 cpr 16/16384 = 65536 cpr x 16384 turns</p>	<p>b) INTERFACE PX = Profibus-DP CX = CANopen DX = DeviceNet</p>	<p>c) SHAFT DIAMETER 14 = 14 mm</p>	<p>d) CUSTOM VERSION</p>
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