

# ROTACOD

Absolute encoders with Profibus-DP output

series

Ax58 PB • Ax58S PB • Ax58C PB



Ax58x PB

## ENVIRONMENTAL SPECIFICATIONS

|                              |                                                             |
|------------------------------|-------------------------------------------------------------|
| Shock:                       | 100 g, 6 ms (acc. to MIL STD 202F)                          |
| Vibrations:                  | 10 g, 5-2000Hz (acc. to MIL STD 202F)                       |
| Operating temperature range: | -20°C +70°C (-4°F +158°F)                                   |
| Storage temperature range:   | -20°C +80°C (-4°F +176°F)<br>(98% R.H.without condensation) |
| Protection:                  | IP65                                                        |

## MECHANICAL SPECIFICATIONS

|                                   |                                                                                           |
|-----------------------------------|-------------------------------------------------------------------------------------------|
| Dimensions:                       | see drawing                                                                               |
| Shaft:                            | Ø 6, 8, 9.52, 10, 12, 14, 15 mm                                                           |
| Shaft loading (axial and radial): | 40 N max.                                                                                 |
| Shaft rotational speed:           | 6000 rpm                                                                                  |
| Starting torque at 20°C:          | < 1 Ncm (typical)                                                                         |
| Moment of inertia:                | ~95 gcm <sup>2</sup>                                                                      |
| Bearing life:                     | 400x10 <sup>6</sup> rev. min. (10 <sup>6</sup> rev. min. with shaft loading of 20 N max.) |
| Weight:                           | ~0,5 kg (17,6 oz)                                                                         |

## ELECTRICAL SPECIFICATIONS

|                          |                                                                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STD codes:               | binary                                                                                                                                                                       |
| Power supply:            | +10V +30V                                                                                                                                                                    |
| Power consumption:       | 2,6W max.                                                                                                                                                                    |
| Output frequency:        | 60 kHz max.                                                                                                                                                                  |
| Accuracy:                | 30% LSB                                                                                                                                                                      |
| Programmable parameters: | <ul style="list-style-type: none"><li>• counting direction</li><li>• resolution up to 8192 counts/rev. and 4096 rev.</li><li>• preset value</li><li>• offset value</li></ul> |
| Baudrate:                | max 12 Mbit/sec.                                                                                                                                                             |
| Device address:          | programmable by Dip-switches                                                                                                                                                 |
| Bus connection:          | galvanically separated by opto-couplings                                                                                                                                     |
| Interface:               | Siemens Profibus controller SPC3                                                                                                                                             |
| Class:                   | 2 (PNO, order 3.062)                                                                                                                                                         |
| Output circuit:          | Transceiver RS485                                                                                                                                                            |
| EMC:                     | electro-magnetic emission (EN 50081-2)<br>electro-magnetic compatibility (EN 50082-2)                                                                                        |
| Protection:              | against inversion of polarity<br>against short circuit<br>against over voltage                                                                                               |
| Optoelectronic life:     | 100.000 h min.                                                                                                                                                               |

## MATERIALS

|               |                               |
|---------------|-------------------------------|
| Housing:      | non corroding                 |
| Flange:       | non corroding                 |
| Bearings:     | ABEC 5                        |
| Shaft:        | stainless steel, non-magnetic |
| Light source: | GaAl diodes                   |

## ELECTRICAL CONNECTIONS

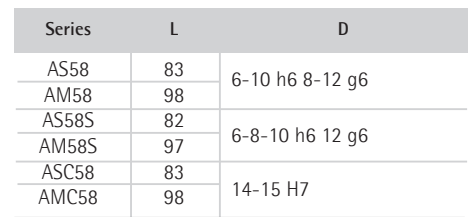
### CLAMP

|   |                                |
|---|--------------------------------|
| + | +10Vdc +30Vdc                  |
| - | 0 Vdc                          |
| A | Receive/Transmit data negative |
| B | Receive/Transmit data positive |

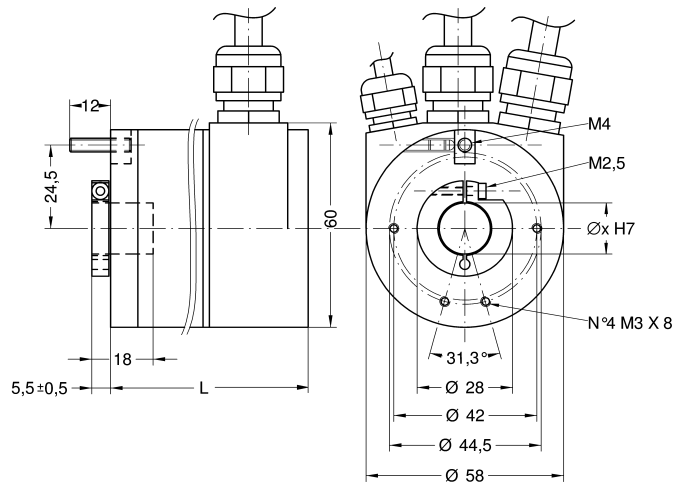
### ACCESSORIES

|          |                                |
|----------|--------------------------------|
| CC-PB:   | connection cap 3xPG            |
| CC-PB-C: | connection cap with connectors |
| PAN/PGF: | flexible couplings             |
| BR1:     | reducing sleeves               |
| LKM-386: | fixing clamps                  |

Specifications subject to changes without prior notice

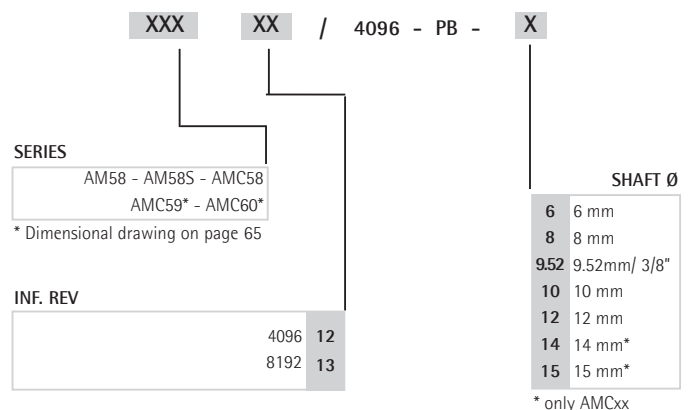


AS58/AM58



ASC58/AMC58

## ORDERING CODE MULTI TURN VERSION



Reducing sleeves  
see on page 75