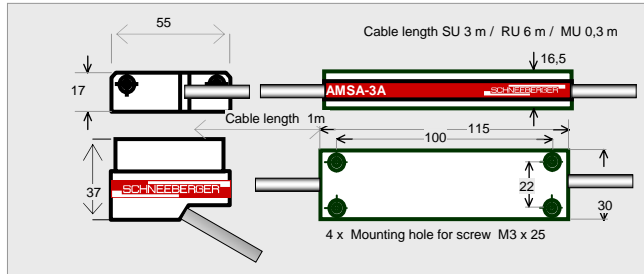


Dimensions
Reading head



Ordering information

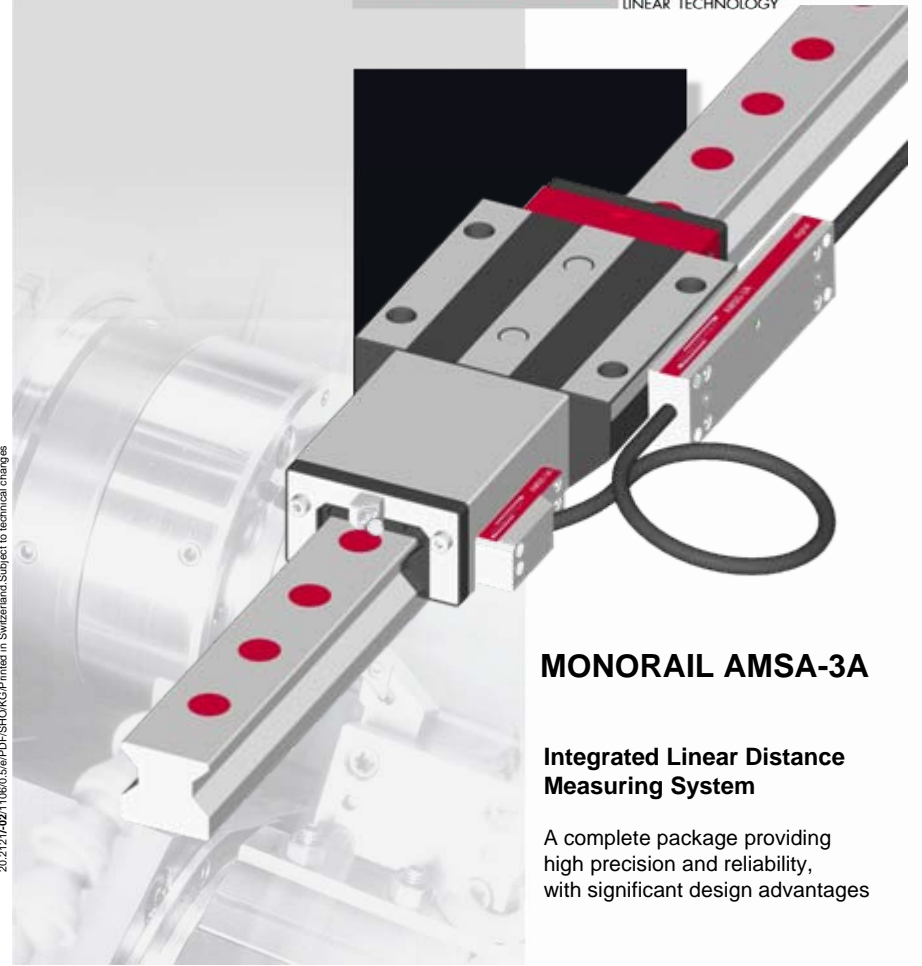
| | | | | | | |
|--------------|--|--|------|------|----|-----|
| Number | 1 | AMSA-3A | - 25 | -948 | -S | -SU |
| Type | AMSA-3A (analog) AMSA-3D (digital) | | | | | |
| Size | 25, 35, 45, 55, 65 | | | | | |
| Length in mm | (magnetised length of scale) | | | | | |
| Ref. mark | S Reference marks every 50mm C Distance coded K Customer specific (drawing is necessary) | | | | | |
| Cable | MU | 0,3 m cable with mounting base | | | | |
| Interface | SU | 3 m cable with plug-in connector 12-pole union nut | | | | |
| | RU | 3 m cable with plug-in Connector 12-pole external thread | | | | |
| | OO | System is to be supplied without reading head | | | | |

Spare parts

| | | | | | |
|-------------|---------------|-----------|-------------|---------------|-------------|
| 580 101 892 | Scanning unit | SMA 3A-SU | 580 102 431 | Scanning unit | SMD 3A – SD |
| 580 102 317 | Scanning unit | SMA 3A-MU | 580 102 432 | Scanning unit | SMD 3A – MD |
| 580 102 320 | Scanning unit | SMA 3A-RU | | | |

20.12.14/02/1106/0.5/enPDF/SHO/KGP/Printed in Switzerland/Subject to technical changes

SCHNEEBERGER
LINEAR TECHNOLOGY



MONORAIL AMSA-3A

Integrated Linear Distance Measuring System

A complete package providing high precision and reliability, with significant design advantages

The Integrated Measuring System AMSA-3A For Demanding Targets In General Application And Machine Tool

AMSA-3A from SCHNEEBERGER

The product "Advanced Mesuring System Analog" AMSA-3A is designed for the following applications.

- Short and compact axis with special accuracy requirements
- Unknown environment
- Readhead cannot be changed with axial access
- Operation without central lubrication
- Short stroke operation with extra readhead lubrication

The used sensors and electronics are based on the AMSA-30. The scale is interchangeable with AMSA-30 products

Reduced complexity and minimised process costs

With the MONORAIL AMSA-4A Schneeberger provides you a complete integrated solution with unique advantages in

Accuracy

- The expansion coefficient is the same as steel
- Good thermal coupling with the base
- Measuring close to the working process
- Optimum alignment of the measurement system
- Vibration- and shock-resistant

Installation and set-up

- Delivered complete to the customers specification and ready for installation
- No alignment required
- No additional brackets or machining
- The integrated system means simple and easy installation and set-up process.

Your design process

- Space-saving system
- Short construction time, no special fitting is necessary
- Short thermal distances to the machine spindle

Service and maintenance

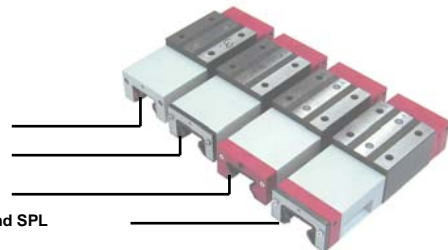
- Single readhead covers all rail sizes
- Simple and precise exchange of measuring-head by means of two fixing screws
- The system is sealed against dust and liquids
- Resistant to oils, greases and coolants
- Measuring scale is corrosion resistant
- Cover strip protects the measurement scale against damage from swarf and through handling
- 100% interchangeability of components
- Insensitive to all kind of contamination and dirt

AMSA-3A

AMSA-3A with additional wipers

AMSA-3A with SPL

AMSA-3A with additional wipers and SPL



Technical data

System characteristics

Material measure Hard magnetic periodic N - S division
Signal period 200 µm
Reference marks every 50 mm, distance-coded, customer-specific
Max. length 6000 mm

Accuracy

Accuracy class +/- 5 µm / 1000 mm +/- 2 µm / 40 mm
Periodic deviation +/- 0,7 µm
Resolution 0,0625 - 4 µm in Connection with SMEa
Hysteresis < 0,5 µm - 1 µm

Movement

Max. speed 3 m/s
Max. acceleration 30 g

Environment

Protection class IP 67
Operating temperature 0° - +70° C
Storage temperature -20° - +70° C
Vibration / Schock 30 g

Interfaces

analog Voltage interface 1 Vpp, 11 µApp
digital A quad B signal with error signal in combination with SMEa
Direct Outputs in preparation

Power supply 5 +/- 0,25 V
Current demand 40 mA per reading head

| MR Size | Lw MRA/MRC | Lw MRB/MRD | LS | L9 MRA/MRC | L9 MRB/MRD | L10 | A1 | A2 | A3 |
|---------|------------|------------|------|------------|------------|-----|------|----|-----|
| 25 | 57 | 79,4 | 12 | 144 | 166,4 | 75 | 23,5 | 31 | 15 |
| 35 | 76 | 103 | 16,5 | 172,5 | 199,5 | 80 | 34 | 34 | 15 |
| 45 | 100 | 135 | 18,8 | 200,8 | 235,2 | 82 | 42 | 42 | 11 |
| 55 | 120 | 162 | 21,8 | 226,8 | 268,8 | 85 | 49 | 49 | 6,5 |
| 65 | - | 201 | 32 | - | 323 | 90 | 66 | 66 | 0 |

