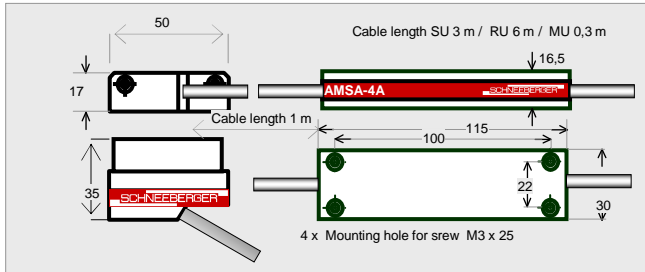


**Dimensions
Reading head**



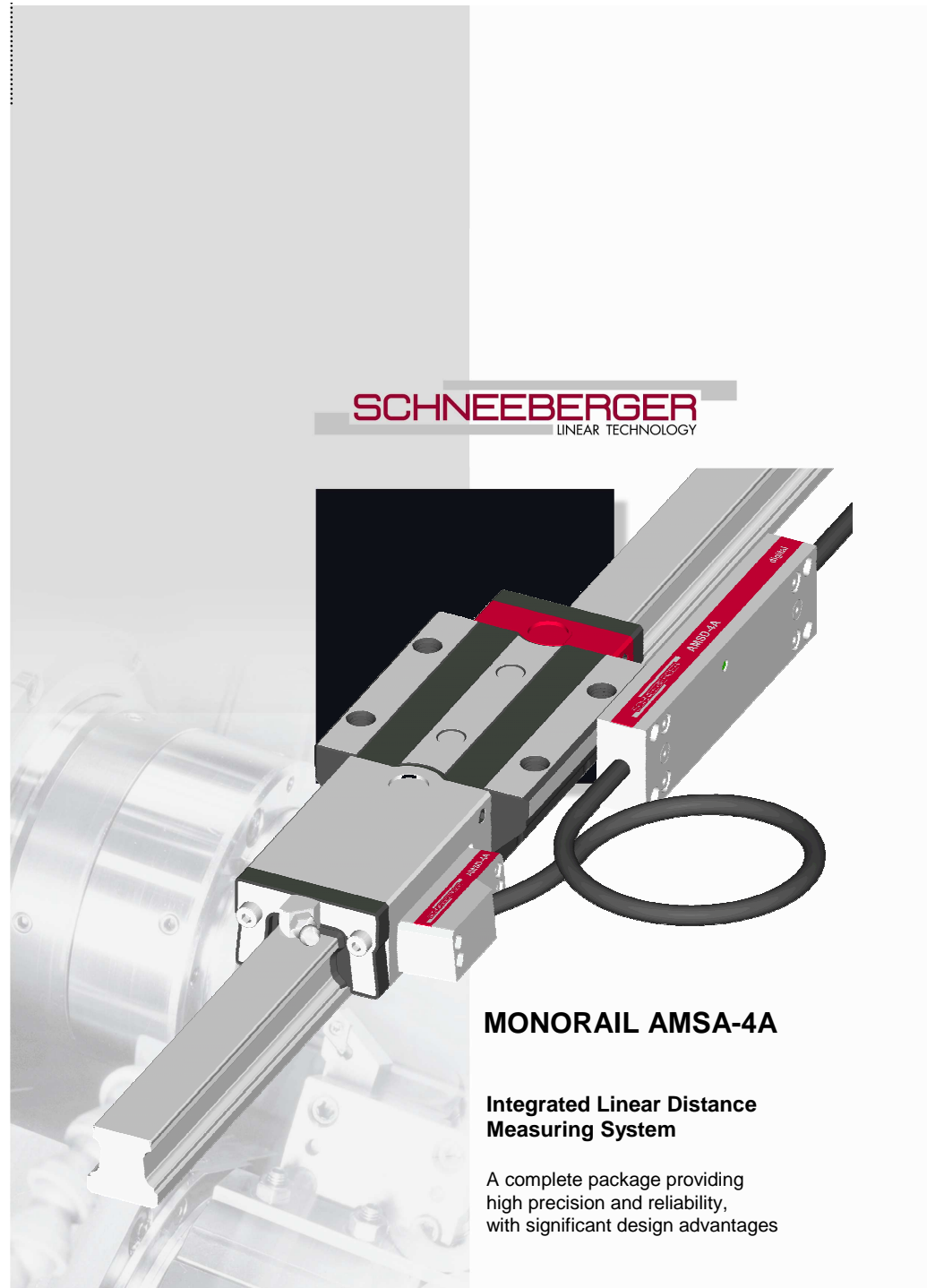
**Ordering
information**

Number	1	AMSA-4A	- 25	- 948	- S	- SU
Type	AMSA-4A					
Size	15, 20, 25, 30, 35, 45					
Length in mm	(Magnetised length)					
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

584 101 070	Scanning unit SMA 4A-SU
584 101 071	Scanning unit SMA 4A-MU
584 101 072	Scanning unit SMA 4A-RU

SCHNEEBERGER
LINEAR TECHNOLOGY



MONORAIL AMSA-4A

**Integrated Linear Distance
Measuring System**

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

The integrated system AMSA-4A for Ball MONORAIL

AMSA-4A

The magnetoresistive measurement technology is now also available for the SCHNEEBERGER Ball MONORAIL

- Excellent system accuracy providing a 200µm signal period
- Single readhead for all sizes BM15 - BM45
- Optional direct digital readhead output
- Can be operated with the self lubrication cartridges
- Length up to 6000mm (BM25 - BM 45)

The used sensors, electronics and scale are based on the AMSA-30

Reduced complexity and minimized 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 setup

- 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 setup 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

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 Verbindung mit SMEa
Hysteresis < 0,5 µm - 1 µm

Movement

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

Environment

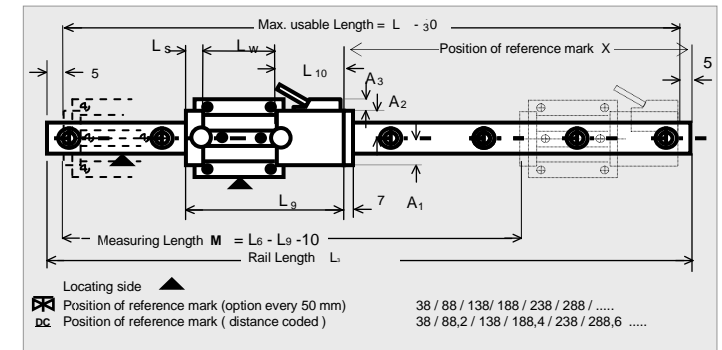
Protection class IP 67
Operating temperature 0° - +70°C
Storage temperature -20° - +70°C
Vibration / Schock 30 g

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

BM size	Lw BMA/BMC	Lw BMB/BMD	LS	L9 BMA/BMC	L9 BMB/BMD	L10	A1,A2	A3
15	42,8		8,5	117		66	21,5	17,5
20	53,6	69,5	11	133,6	149,5	69	23	17,5
25	64,3	83,3	12,5	145,8	164,8	69	23,5	17,5
30	75	97	14	161	183	72	29	14,5
35	86	111,5	16	176	201,5	74	34	10
45	107	138,5	19	204	235,5	78	42	5



Standard configuration including AMSA-housing with additional integrated wipers