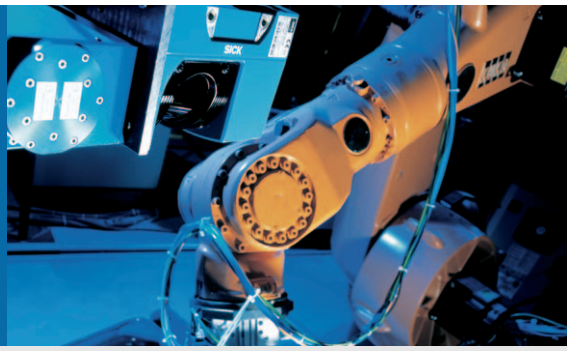
TECHNICAL INFORMATION

LMS200/211/221/291
Laser Measurement Systems



Supplement to Technical Description

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Function of this document

This document completes the Technical Description of the LMS200/221/221/291 Laser Measurement Systems (no. 8008970/QI72/2006-12) with some corrections and extensions.

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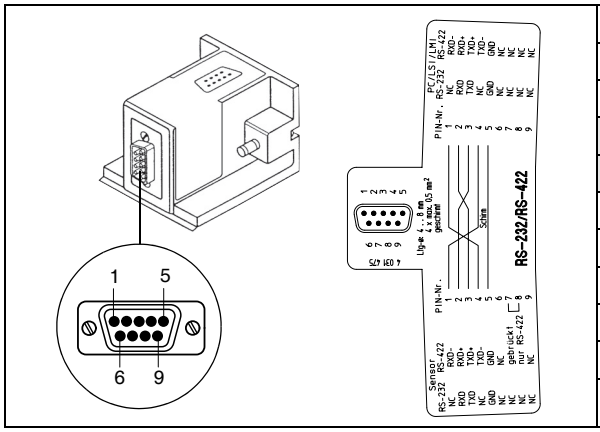
1 Correction to Technical Description

1.1 Pin assignment in the “Data interface“ plug module (LMS200/LMS291)

The pin assignment shown in *Table 7-3, Page 20* in the Technical Description is incorrect. ***Table 1-1*** shows the corrected pin assignment (pin 3 and 4).



Pin	Signal	Data interface
1	RD–	RS 422
2	RD+/RxD	RS 422/RS 232
3	TD+/TxD	RS 422/RS 232
4	TD–	RS 422
5	GND	Ground
6	n.c.	–
7	Bridge to pin 8	Enables the RS 422 interface
8	Bridge to pin 7	
9	n.c.	–
Device	Shield	–

Table 1-1: LMS200/LMS291: Correct pin assignment of the 9-pin D Sub plug in the “Data interface“ plug module

2 Extention to Technical Description

2.1 Minimum load current for LMS2xx relay outputs

The LMS211-S07, -S20 and LMS221-S07, -S20 are equipped with relay outputs. For safety switching, a minimum load current of 5 mA is required at the contacts of the load switching circuits of the relays.

2.2 Device types with Ethernet interface

The LMS2xx product family provides 3 types of devices with integrated Ethernet interface:

Device type	Enclosure rating	Housing variant	Basic device type
LMS211-S26	IP 67		LMS211-30206
LMS211-S27			LMS211-S14
LMS221-S26	IP 67		LMS221-30206

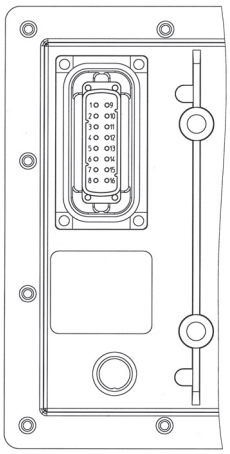
NOTICE

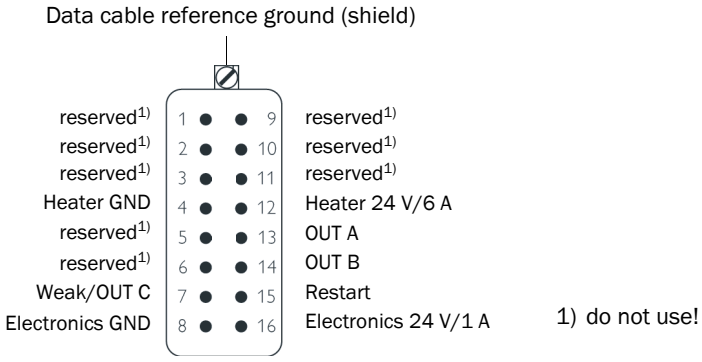
RF interferences in case of use in residential areas!

➢ The Laser Measurement Systems LMS211-S26, LMS221-S26 and LMS211-S27 are exclusively intended for use in an industrial environment.

2.2.1 Electrical Connection

Terminal assignment of the connection plug

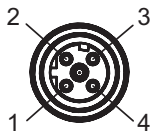




Note:
To ensure that the incoming power supply cable is protected against short-circuits/overload, use an external power supply with current limiting (e.g. fuse).

Fig. 2-1: LMS211-S26/-S27 and LMS221-S26: Terminal assignment of the 16-pin connection plug

Ethernet connection



Pin	Signal
1	TX+
2	RX+
3	TX–
4	RX–

Table 2-1: LMS211-S26/-S27 and LMS221-S26: Pin assignment of the 4-pin Ethernet socket (M12)

The sope of delivery includes an Ethernet plug (90°-angular) for commissioning by the user. Alternatively, pre-fabicated cables with several lengths are available at stock (see accessories, *Table 2-4, Page 6*).

2.2.2 Functions/Order numbers

Type	Scanning Angle	Resolution/typical Measurement Accuracy	Angular Resolution	Typical range	Temperature Range	Heating	Fog Correction	Order no.
LMS211-S26[1)]	100°	0,25°; 0,5°; 1°	10 mm/±35 mm	30 m	–30 to +50 °C	yes	yes	1044297
LMS221-S26[1)]	180°	0,25°; 0,5°; 1°	10 mm/±35 mm	30 m	–30 to +50 °C	yes	yes	1044296
LMS211-S27[1)]	90°	0,5°	10 mm/±35 mm	30 m	–30 to +50 °C	yes	yes	1044298
1) Data interface Ethernet								

Table 2-2: LMS211-S26/-S27 and LMS221-S26: Functions

2.2.3 Technical Data

The technical data shown in *Table 12-1, Page 29/30* in the Technical Description are also valid for the LMS211-S26/-S27 and LMS221-S26, with the following differences:

Data interface	Ethernet / TCP/IP
Data transfer rate	100 MBit
Protection class	Class 3, according to EN 50178 (1997-10)
EMC test	Emmission (industry): according to EN 61000-6-4 (2007-01) Immunity (industry): according to EN 61000-6-2 (2005-08)

Table 2-3: LMS211-S26/-S27 and LMS221-S26: Different technical data

2.2.4 Dimensional Drawing

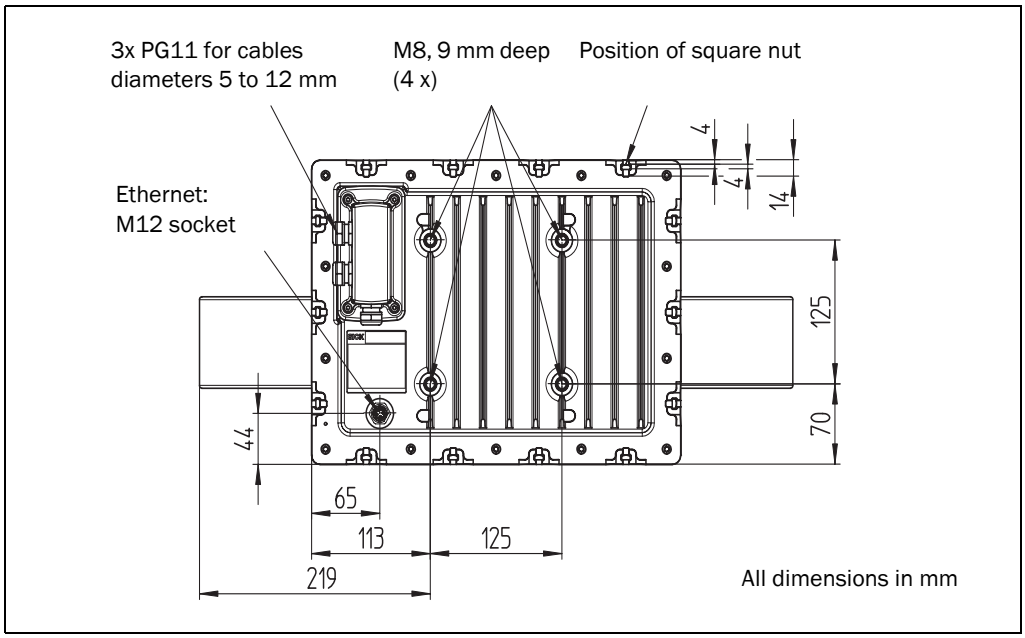


Fig. 2-2: LMS211-S26/-S27 and LMS221-S26: Dimensions

2.2.5 Accessories

Table 14-3, Page 42 in the Technical Description lists the available accessories of the LMS211/221. For the device types with Ethernet interface the following accessories are additionally available at stock:

Order no.	Description	View
6036761	Ethernet connector (90°-angular)	
6034415	Ethernet cable, twisted pair, shielded, 4-pin M12 plug (D coded), straight, IP 65 and 8-pin RJ45 plug, length 5 m. For connection the LMS 211/221 to the Ethernet interface of the PC/Host.	–
6030928	As above, but length 10 m	–
6036158	As above, but length 20 m	–

Table 2-4: LMS211-S26/-S27 and LMS221-S26: Additionally available accessories

2.2.6 Startup

For configuring the “Comtrol DeviceMaster“ interface converter (Ethernet interface) in the LMS211-S26/-S27 and LMS221-S26, a corresponding driver must be installed on the PC/Host. The driver and the operating instructions (Nr. 8012680) for the configuration are contained on the provided CD-ROM “Manuals & Software LMS2xx“ (no. 2034261, from issue SC71/2008-08).

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