ABB i-bus® KNX
Diagnosis and Protection Module, MDRC
DSM/S 1.1, 2CDG 110 060 R0011

The diagnosis and protection module enables quick diagnostics of the bus state and indicates telegram traffic via an LED. A bus failure ($U < U_{min}$) can be signalled via the changeover contact. The DSM incorporates a suppressor diode which suppresses transient overvoltages and interference voltage spikes on the KNX.

The DSM/S is a rail mounted modular installation device for installation in distribution boards. The connection to the ABB i-bus® KNX is established using the bus connection terminal.

Technical Data

Power supply	Operating voltage	21 … 32 V DC, via the bus
	Current consumption	Max. 8 mA
	Power consumption via KNX	< 150 mW
	Leakage loss	Max. 150 mW
Operating and display elements	U = ok (1)	lights up if the bus voltage is ok (approx. > 22.5 V, always at U = 23.5 V) and the device is ready for operation
	$U < U_{min}$ (2)	lights up if the bus voltage is too low (approx. < 21 V, always at U < 20 V)
	Telegram (3)	Flashes, if a telegram is sent via the bus, lights with multiple telegrams on the bus
	Red LED (5) and button (6)	Without function
Connections	KNX	Bus connection terminal 0.8 mm Ø, single core
	Load current circuits	Screw terminal
		0.2...2.5 mm² Ø, finely stranded
		0.2...4 mm² Ø, single core
	Tightening torque	Max. 0.6 Nm
	Signal contacts (8, 9)	During normal operation the contact is open (as printed on the housing). As soon as the bus voltage drops below Umin, the red LED (2) lights up and the changeover contact switches over
Load rating of the relay contacts	6 A at 230V AC (AC1/AC3) / 4 A at 24 V DC	
Protective function	The DSM incorporates a suppressor diode (43 V/1500 W @ 10/1000 µs pulse) which suppresses transient overvoltages and interference voltage spikes on the KNX. It is recommended to apply the device as a “disconnection point”, for example between building sections, to provide optimum protection.	
Enclosure	IP 20	to DIN EN 60 529
Safety class	II	to DIN EN 61 140
Isolation category	Overvoltage category	III to DIN EN 60 664-1
	Pollution degree	2 to DIN EN 60 664-1
KNX safety extra low voltage	SELV 24 V DC	
Ambient temperature range	Operation	– 5 °C...+ 45 °C
	Storage	– 25 °C...+ 55 °C
	Transport	– 25 °C...+ 70 °C
Design	Modular installation device, Pro *M*	
Housing, colour	Plastic housing, grey	
Installation	On 35 mm mounting rail	to DIN EN 60 715

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Dimensions	90 x 36 x 64 mm (H x W x D)
Mounting depth/width	36 mm/2 modules at 18 mm
Weight	0.1 kg
Mounting position	as required
Approvals	KNX to EN 50 090-2-2
CE mark	in accordance with the EMC guideline and low voltage guideline

Device type	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
DSM/S 1.1	Diagnosis and protection module/…*	0	0	0

* … = current version number of the application program. **Please observe the software information on our homepage for this purpose.**

Hinweis
No programming of the device is required with the ETS. For documentation purposes a product database can be loaded in the ETS.

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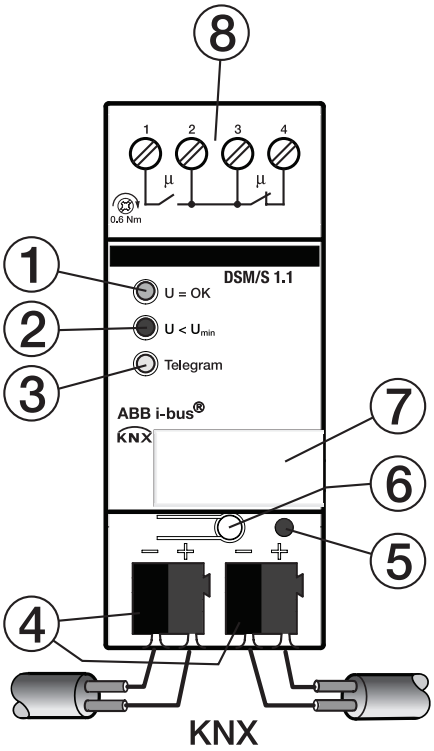
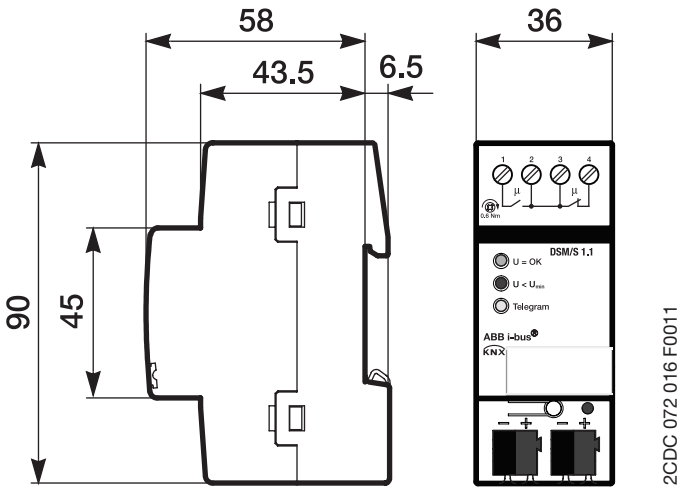
Circuit diagram



1 Display, bus voltage ok
2 Display, bus voltage too low
3 Display, telegram traffic
4 KNX connection terminals
5 LED without function
6 Button without function
7 Label carriers
8 Changeover contact

Dimension drawing



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Notes