

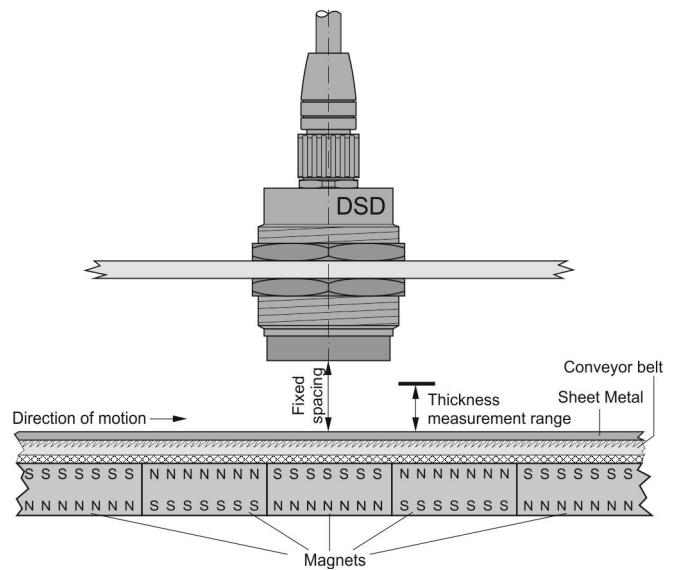
12.3. DSD Sensor for Single-Surface non-contact Measurement

12.3.1. Mounting

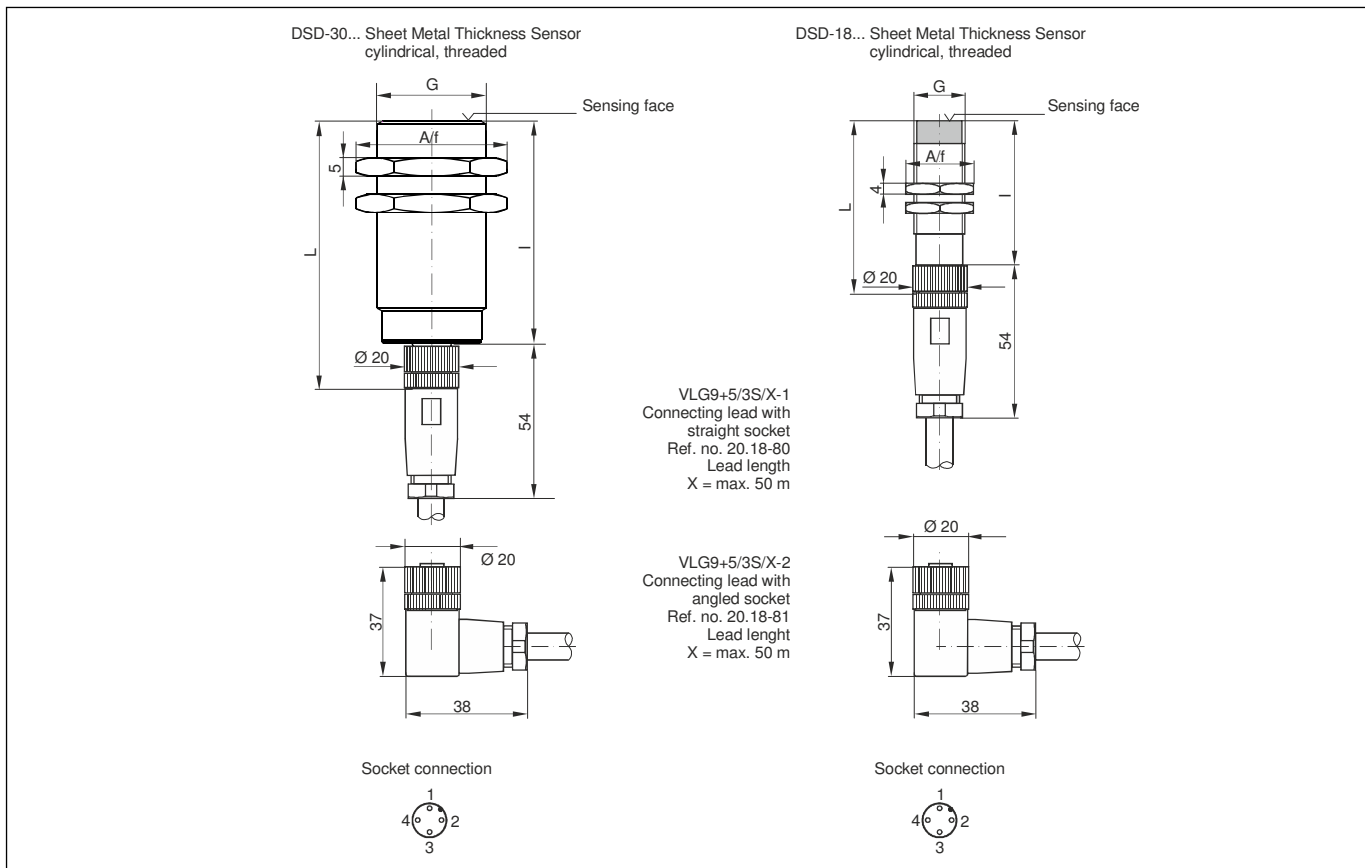
The distance between the sensing face and the surface supporting the workpiece (conveyor belt) must correspond to the distance specified for the sensor to be used. The workpieces must lie on the supporting surface without any air gap.

Strong magnetic fields, resulting from magnets which are used on conveyor belts, may influence the measurements when the workpiece moves along the sensor. This influence can be minimised by mounting the sensor symmetrically to the magnetic poles, and hence to the respective magnetic field.

The workpieces must be large enough to completely cover the sensing face during the entire measuring operation.



12.3.2. Housing Dimensions DSD (Fe sheets, single-surface non-contact measurement)



Type	Ref. no.	Dist. mm	Ferrous materials		Meas. time ms	L mm	I mm	G Thread	A/f	Weight g
			Meas. range mm	Double sheet monitor mm						
DSD-18mg 61n0.5/3-1Sd1	13.05-91	8	0.5 ... 6.0 0.5 ... 7.0 *)	0.5 ... 3.0 0.5 ... 3.5 *)	10	61	51	M18x1	24	50
DSD-30mg 74n3/6,5-1Sd1	13.05-94	16	3.0 ... 13 **)	3.0 ... 6.5 **)	10	74	61	M30x1.5	36	112

*) from software version F119 or higher (August 2015). **) from software version F120 or higher (April 2022).

18. Order Data (designation / ref. no.)

18.1. Evaluation Devices

BDK-1.3 (Relay outputs)	20.05-80
BDK/OB-1.3 (Semi-conductor relay outputs)	20.21-01
BDK/FS-1.3 (InterBus – S)	20.05-81
BDK/FP-1.3 (PROFIBUS DP)	20.05-82
BDK/PN-1.3 (PROFINET IO)	20.05-93

18.2 Sheet Metal Thickness Sensors for single-surface contact measurement

DSPW-42sg-1s for Fe sheets up to 3.0 mm / NE sheets up to 2.0 mm, thread M42 x 1.5 - For using the DSPW-42sg-1s sensor, the evaluation device has to be equipped with software version E118 (January 2014) or higher.	13.05-66
DSPW-54sg-1s for Fe sheets up to 3.5 mm / NE sheets up to 2.5 mm, thread M54 x 0.75	13.05-67
BDWF-m54rg-2s for NE sheets up to 5.5 mm, thread M54 x 0.75	13.05-73
DSP-36sg-1s for Fe sheets up to 1.5 mm, thread M36 x 1.5	13.05-86
DSP-42sg-1s for Fe sheets up to 2.5 mm, thread M42 x 1.5	13.05-87
DSP-54sg-1s for Fe sheets up to 3.5 mm, thread M54 x 0.75	13.05-89
DSP-75sg-1s for Fe sheets up to 5.5 mm, thread M75 x 1.5	13.05-90

18.3 Sheet Metal Thickness Sensors for double-surface non-contact measurement

BDWD/S-m36rg-1s (transmitter) for Fe sheets up to 3.0 mm / NE sheets up to 6.0 mm, thread M36 x 1.5	13.05-74
BDWD/E-m36rg-1s (receiver) for Fe sheets up to 3.0 / NE sheets up to 6.0 mm, thread M36 x 1.5	13.05-75
BDWD/S-60aq30-1Y1 (transmitter) for Fe sheets up to 3.0 / NE sheets up to 6.0 mm, rectangular housing 60x60 mm	13.05-76
BDWD/E-60aq30-1Y1 (receiver) for Fe sheets up to 3.0 / NE sheets up to 6.0 mm, rectangular housing 60x60 mm	13.05-77

18.4 Sheet Metal Thickness Sensors for single-surface non-contact measurement

DSD-18mg61n0,5/3-1Sd1 for Fe sheets up to 3.0 mm for Fe sheets up to 3.5 mm with software version F119 (Au- gust 2014) or higher for NE sheets (depends on sheet type, on demand), thread M18 x 1	13.05-91
DSD-30mg74n3/6.5-1Sd1 for Fe sheets up to 6.5 mm for NE sheets (depends on sheet type, on demand), thread M30 x 1.5 from software version F120 (April 2022).	13.05-94

18.5 Connecting Leads and Accessories

All connecting leads are oil-resistant and suitable for drag chains. Please indicate the lead length X when ordering (standard length X = 5 m). The connectors are device-sided straight and sensor-sided optionally straight or angled.

VLG9/2+4PS/X-1 Connecting lead BDK <---> sensor, lead socket sensor-sided straight	20.18-35
VLG9/2+4PS/X-2 Connecting lead BDK <---> sensor, lead socket sensor-sided angled	20.18-36
VLG9/2+4PS/X-3 Extension lead: BDK-lead (VLG) <---> sensor, lead socket sensor-sided straight	20.18-37
VLG9/2+4PS/X-4 Extension lead: BDK-lead (VLG) <---> sensor, lead socket sensor-sided angled	20.18-38
VLG9E/2+4PS/X-1 Connecting lead BDK and multiple coupling	20.18-39
VLG9E/2+4PS/X-2 Connecting lead multiple coupling and sensor, lead socket straight	20.18-40
VLG9E/2+4PS/X-3 Connecting lead multiple coupling and sensor, lead socket angled	20.18-41
VLG9+5/3S/X-1 Connecting lead BDK <---> DSD-18/DSD-30, lead socket sensor-sided straight	20.18-80
VLG9+5/3S/X-2 Connecting lead BDK <---> DSD-18/DSD-30, lead socket sensor-sided angled	20.18-81
ADD1/2-1.3 T-Coupler for connecting additional sensors, 1 x pin, 2 x socket	20.18-45
SMF25-1 Lead socket for connection of power supply and control leads for devices with parallel interface.	13.99-04
SMF6-3 Lead socket for connection of power supply leads for InterBus, PROFIBUS and Profinet devices.	13.99-06