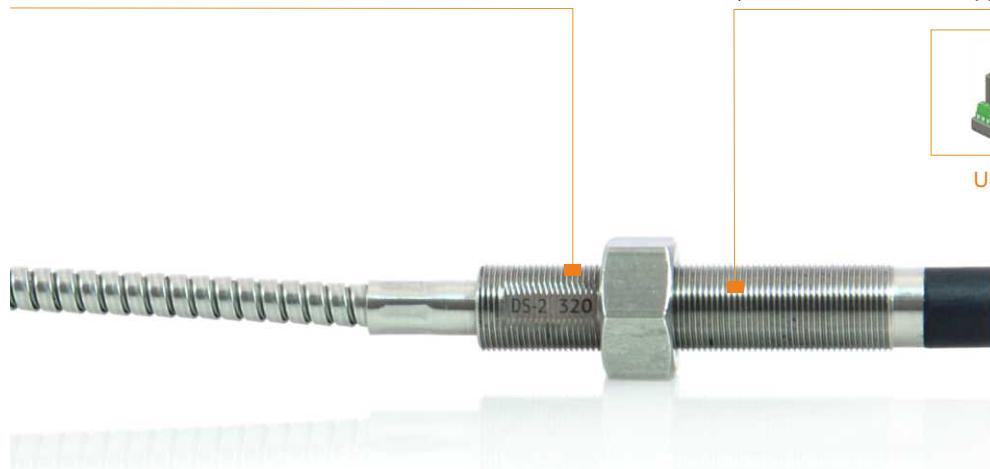


IKV-1-4-4 ver. A vibration measuring channel

Safety

Breakdown and short circuit control of the cable connecting eddy-current probe with AS 131 transducer.



Reliability

The channel consists of DS-0 (DS-1, DS-2, DS-3) eddy-current transducer and USO AS 144 converter, located in the connection box (the connection box is supplied on request)



USO AS 144
for ver. A



Connection box

Designed to measure the axial shift
in the emergency protection system (EPS);
Output signal type: -1...-17 V

Specifications

Metrological parameters

Range of measurement of the axial shift, mm

• DS-0, DS-1 eddy-current transducer	0.25-2.25; 0.25-2.30; 0.25-2.75
• DS-2 eddy-current transducer	0.5-4.5; 0.5-5.5
• DS-3 eddy-current transducer	1.0-9.0; 5.5-9.5
Installation gap (default), mm	
• DS-0, DS-1 eddy-current transducer (0.25-2.25)	1.25±0.2
• DS-0, DS-1 eddy-current transducer (0.25-2.30)	1.275±0.2
• DS-0, DS-1 eddy-current transducer (0.25-2.75)	1.5±0.2
• DS-2 eddy-current transducer (0.5-4.5)	2.5±0.2
• DS-2 eddy-current transducer (0.5-5.5)	3.0±0.2
• DS-3 eddy-current transducer (1.0-9.0)	5.0±0.2
• DS-3 eddy-current transducer (5.5-9.5)	7.5±0.2
Measurement cycle time	0.0005

Interface

Output signal type -1...-17V

Supply voltage, V* -17.5...-26

*Minimum power supply voltage 10 V, for every 50 Ohms of load +1 V

Explosion protection

Kind	intrinsically safe circuit
DS-x marking	0Ex ia IIC T6...T1 Ga X
USO AS marking	0Ex ia IIC T6...T1 Ga X
Connection box marking	0Ex ia IIC T6...T4 Ga X
Connecting	through the TIK-BIS safety barrier

Operating parameters

Operating temperature range, °C

• DS-x ver. 00 (01) eddy-current transducer	-40...+135
• DS-x ver. 00 (01) eddy-current transducer, HL climatic version	-60...+135
• USO AS converter	-40...+70
• USO AS converter, HL climatic version	-60...+70

Design parameters

Mounting type

• DS-0 eddy-current transducer	M8x1 threaded hole
• DS-1 eddy-current transducer	M10x1 threaded hole
• DS-2 eddy-current transducer	M16x1 threaded hole
• DS-3 eddy-current transducer	M24x1 threaded hole

Overall dimensions, mm

• DS-0 eddy-current transducer	D(6.8) L(50;70;90)
• DS-1 eddy-current transducer	D(8.5) L(30;50;70;90)
• DS-2 eddy-current transducer	D(14.5) L(50;70;90)
• DS-3 eddy-current transducer	D(22.5) L(90)
• USO AS 144 converter	98.5x27.5x59
• connection box	277x254.5x83

Weight, kg, not more than

• DS-0, DS-1 ver. 00, 01 eddy-current transducer	0.25
• DS-2 ver. 00, 01 eddy-current transducer	0.30
• DS-3 ver. 00, 01 eddy-current transducer	0.40
• USO AS 144 converter	0.1
• connection box	2.5

Protection class

• DS-x eddy-current transducer	IP65/IP68
• USO AS 144 converter	IP20
• connection box	IP65/IP67

Versions

• IKV-1-4-4 ver. A (DS-x ver. 00 or ver. 01 (with connector), USO AS 144 converter, connection box)**.
**Connection box available as an option (on request)

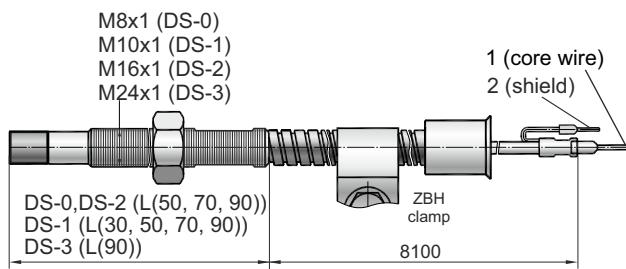
Reliability parameters and manufacturer's warranty

MTBF, hours, not less than	40 000
Warranty service life, months	24
Service life, years, not less than	10

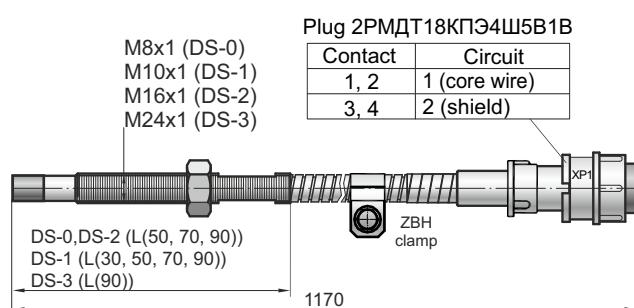


Constructive designs

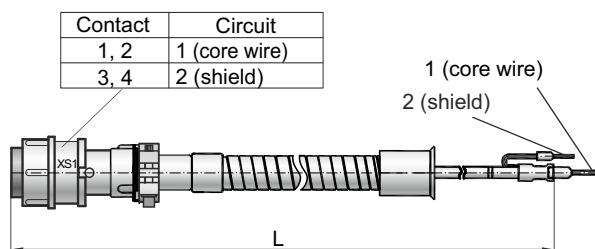
DS-x type A, ver. 00
eddy-current transducer



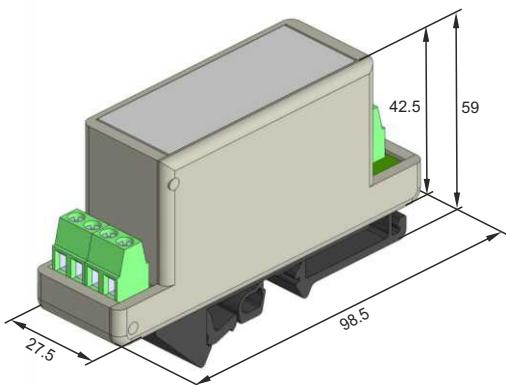
DS-x type A, ver. 01
eddy-current transducer



Connection cable (for ver. 01)



USO AS 144 converter



Connection box

