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HEINZMANN®
Electronic Speed Governors

Product Overview

Sensors

WARNING

Please read this entire manual and all other publications appertaining to the work to be performed before installing, operating or servicing your HEINZMANN equipment. Practice all plant and safety instructions and precautions. Failure to follow instructions may result in personal injury and/or damage to property.

WARNING

The engine, turbine or any other type of prime mover or machine *must be equipped* with a separated overspeed (over-temperature or over-pressure, where applicable) shutdown device(s) to protect the prime mover against runaway and to protect against possible personal injury or loss of life), should the mechanical hydraulic governor(s) or electric control(s), the actuator(s), fuel control(s), the driving mechanism(s), the linkage(s) or the controlled device(s) fail.

In the case of generator sets, an effective monitoring system must be available to prevent damages by overcurrent, voltage differences or reverse power.

PLEASE NOTE

In this manual, we have attempted to give instructions on the techniques of electronic governing and use of accessories, using circuit examples and data that we believe to be accurate.

However, the examples, data and other information are intended *solely* as teaching aids and should not be used in any particular application without independent testing and verification by the person making the application.

Independent testing and verification are especially important in any application in which malfunction might result in personal injury or damage to property.

For these reasons, *we make no warranties*, express or implied, that the examples, data or other information in this volume are free of error, that they are consistent with industry standards, or that they will meet the requirements for any particular application.

HEINZMANN expressly disclaim the implied warranties of merchantability and of fitness for any particular purpose, even if **HEINZMANN** have been advised of a particular purpose, and even if a particular purpose is indicated in the manual. **HEINZMANN** also disclaim all liability for direct, indirect, incidental or consequential damages that result from any use of the examples, data or other information in this manual.

IMPORTANT

Particular care should be taken with regard to cable shielding and power supply connections to ensure that the equipment meets the requirements of the *European Directive concerning EMI*.

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1 Speed Sensors (Pickups)

1.1 Inductive Magnetic Pickups

*Note: Inductive magnetic pickups have **not** to be used for electronic fuel injection.*

1.1.1 Magnetic Pickup with Kable and Connection Plug for Governors E1 and E2

Distance to measuring wheel
0,5 - 0,8 mm

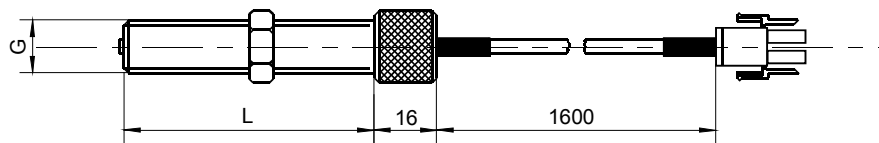


Fig. 1: Magnetic Pickup with Cable and Connection Plug for Governors E1 and E2

Magnetic Pickup	EDV- No.	L1 (mm)	L2 (cm)	Thread G
IA 00 - 38	601-00-201-01	38	160	M 16 x 1,5
IA 10 - 38	601-00-201-02	38	160	5/8" - 18 UNF - 2A

1.1.2 Magnetic Pickup with Cable and End Sleeves

Distance to measuring wheel
0,5 - 0,8 mm

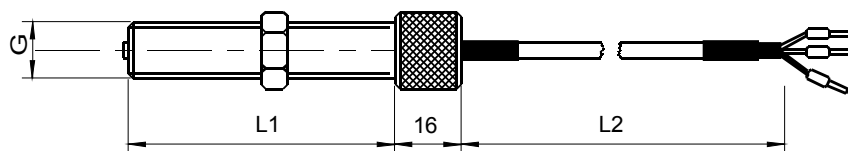


Fig. 2: Magnetic Pickup with Cable and End Sleeves

Magnetic Pickup	EDV- No.	L1 (mm)	L2 (cm)	Thread G
IA 00 - 38-S/48,6	600-00-009-00	38	48,6	M 16 x 1,5
IA 00 - 55/1000	601-00-038-00	55	1000	M 16 x 1,5
IA 00 - 55/90	601-00-038-01	55	90	M 16 x 1,5
IA 00 - 76/160	600-00-004-01	76	160	M 16 x 1,5
IA 00 - 76/200	601-00-005-01	76	200	M 16 x 1,5
IA 00 - 102/250	600-00-069-00	102	250	M 16 x 1,5
IA 00 - 125/80	600-00-010-02	125	80	M 16 x 1,5
IA 10 - 76/160	600-00-004-02	76	160	5/8" - 18 UNF - 2A

1.1.3 Standard Magnetic Pickup with Plug Connection

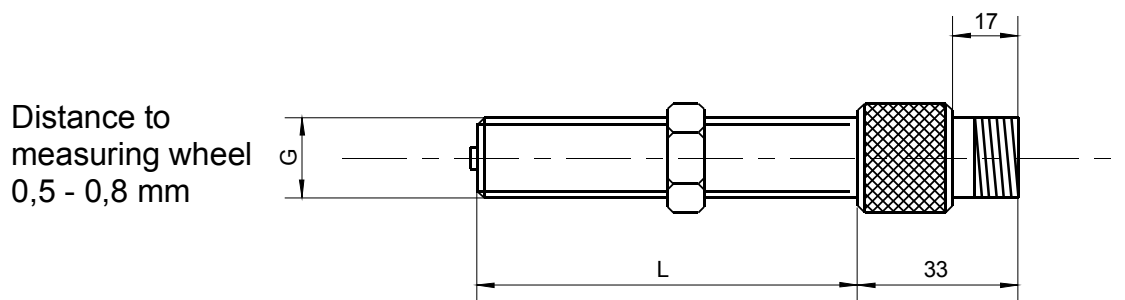


Fig. 3: Standard Magnetic Pickup with Plug Connection

Magnetic Pickup	EDV- No.	L (mm)	Thread G
IA 01 - 38	600-00-003-01	38	M 16 x 1,5
IA 01 - 44	600-00-005-04	44	M 16 x 1,5
IA 02 - 50	600-00-005-09	50	M 16 x 1,5
IA 02 - 76	600-00-006-01	76	M 16 x 1,5
IA 03 - 102	600-00-007-01	102	M 16 x 1,5
IA 04 - 125	600-00-010-01	125	M 16 x 1,5
IA 05 - 140	602-80-005-10	140	M 16 x 1,5
IA 05 - 165	602-80-005-11	165	M 16 x 1,5
IA 11 - 38	600-00-003-02	38	5/8" - 18 UNF - 2A
IA 11 - 44	601-80-004-03	44	5/8" - 18 UNF - 2A
IA 12 - 50	600-00-014-02	50	5/8" - 18 UNF - 2A
IA 12 - 76	600-00-006-02	76	5/8" - 18 UNF - 2A
IA 13 - 102	600-00-007-02	102	5/8" - 18 UNF - 2A

Corresponding plug: SV6 - IA - 2K (EDV- No.: 010-02-170-00)

1.1.4 Magnetic Pickup with Cable and End Sleeves – reinforced Type

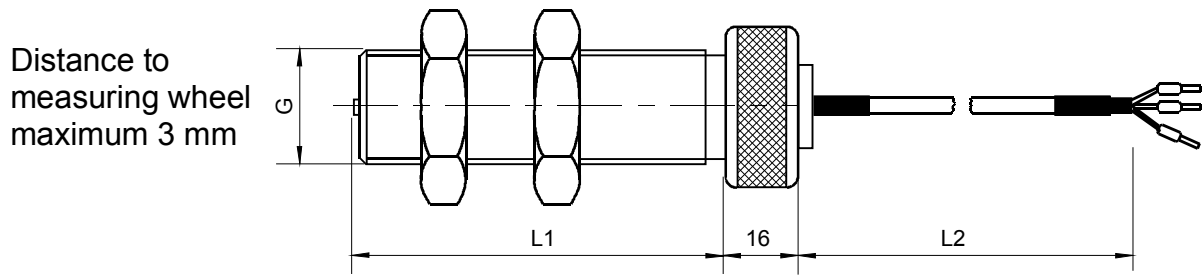


Fig. 4: Magnetic Pickup with Cable and End Sleeves – reinforced Type

Magnetic Pickup	EDV- No.	L1 (mm)	L2 (cm)	Thread G
IA 20 - 76	600-00-054-00	76	105	M 24 x 1,5

1.1.5 Magnetic Pickup with Plug Connection – reinforced Type

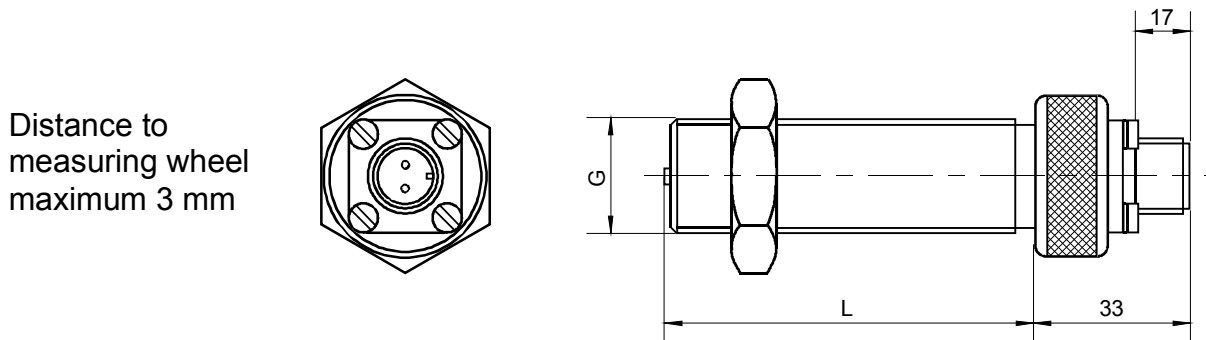


Fig. 5: Magnetic Pickup with Plug Connection – reinforced Type

Magnetic Pickup	EDV- No.	L (mm)	Thread G
IA 22 - 76	602-80-012-00	76	M 24 x 1,5
IA 23 - 102	600-00-059-00	102	M 24 x 1,5
IA 26 - 186	600-00-008-00	186	M 24 x 1,5

Corresponding plug: SV 6 - IA - 2K (EDV- No.: 010-02-170-00)

1.2 Hall Sensors

1.2.1 Hall Sensors with Cable and End Sleeves

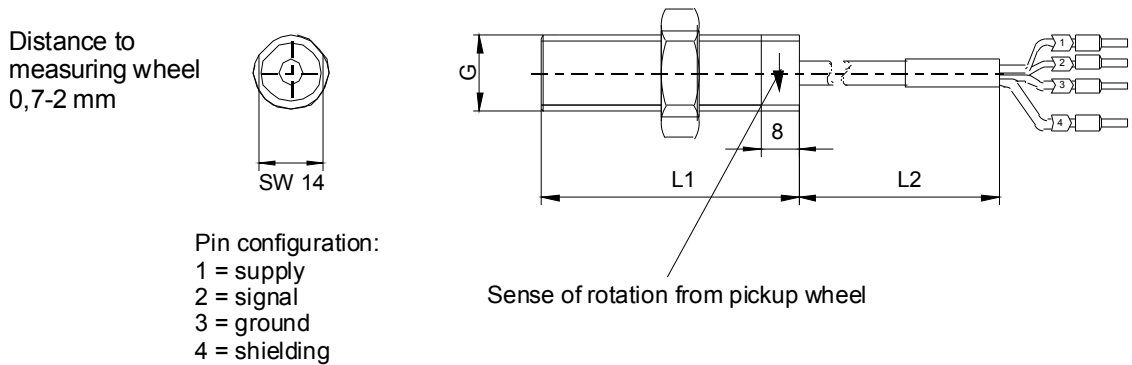


Fig. 6: Hall Sensor HIA 30 - 55 with Cable and End Sleeves

Hall Sensor	EDV- No.	L1 (mm)	L2 (cm)	Thread G
HIA 30 - 55	600-00-072-00	55	1000	M 16 x 1,5

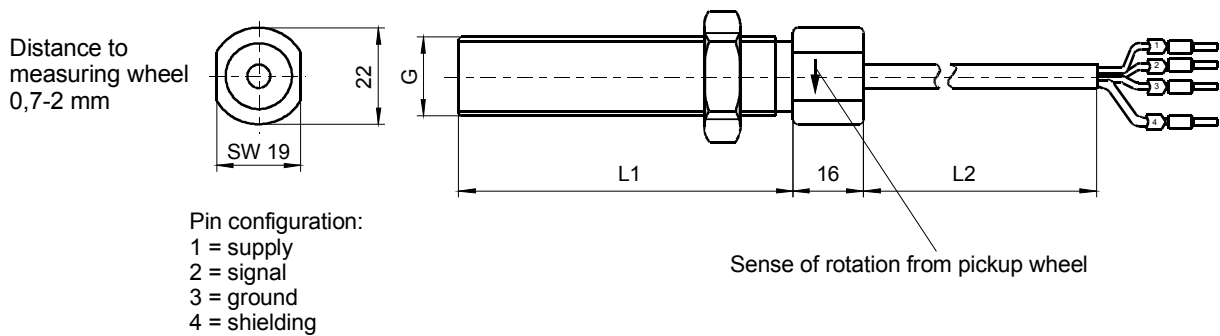


Fig. 7: Hall Sensor HIA 30 - 76 with Cable and End Sleeves

Hall Sensor	EDV- No.	L1 (mm)	L2 (cm)	Thread G
HIA 30 - 76	600-00-079-00	76	250	M 18 x 1

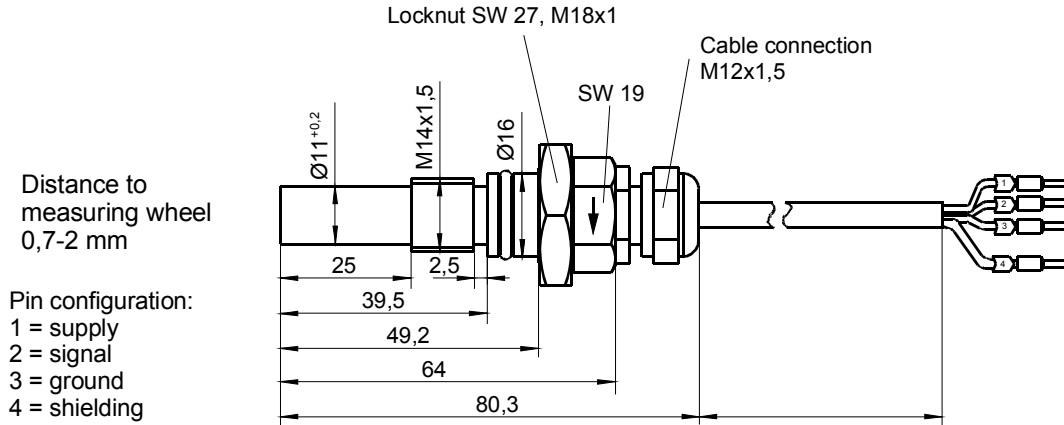


Fig. 8: Hall Sensor HIAS(M14)0-49/600 with Cable and End Sleeves

Hall Sensor	EDV- No.	L (cm)	Thread G
HIAS(M14)0-49/600	600-00-077-00	200	M 14 x 1,5

1.2.2 Hall Sensors with Plug Connection

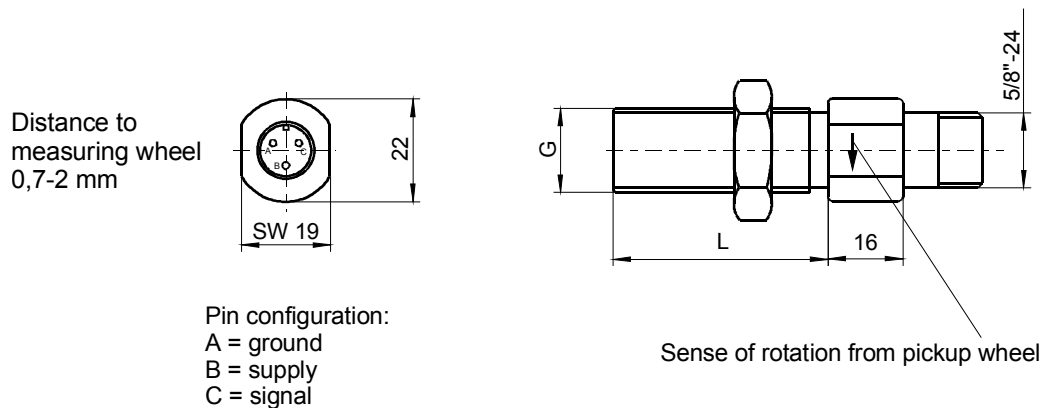


Fig. 9: Hall Sensors with Plug Connection

Hall Sensor	EDV- No.	L (mm)	Thread G
HIA 31 - 38	600-00-071-00	38	M 16 x 1,5
HIA 31 - 46	600-00-052-00	46	M 18 x 1
HIA 31 - 76	600-00-060-00	76	M 18 x 1
HIA 31 - 102	600-00-065-00	102	M 18 x 1
HIA 34 - 125	600-00-070-00	125	M 18 x 1

Corresponding plug: SV 6 - HIA - 3K (EDV- No.: 010-02-355-00)

2 Temperatur Sensors

Corresponding plug: SV 6 - IA - 2K (EDV- No.: 010-02-170-00)

2.1 PT 1000 - Sensor (-50°C up to +150°C)

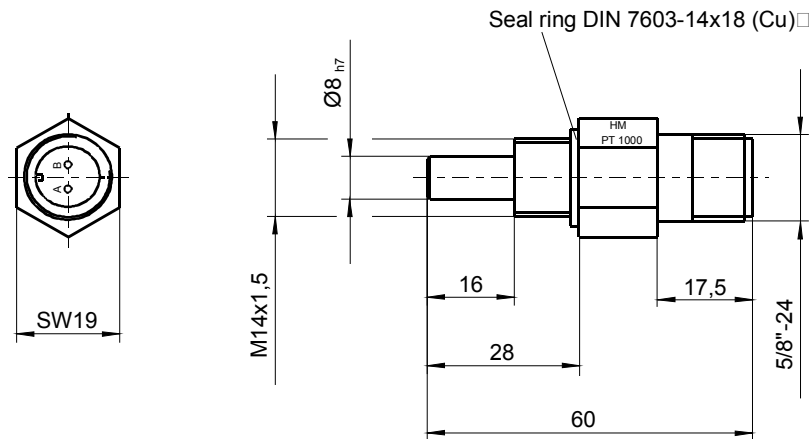


Fig. 10: TS 01 28 - PT 1000 - Sensor

Temperature Sensor	EDV- No.	L1 (mm)	L2 (mm)	Thread G
TS 01-28 - PT 1000	600-00-053-00	12	16	M 14 x 1,5

2.2 PT 1000 - Sensor (-20°C up to +130°C)

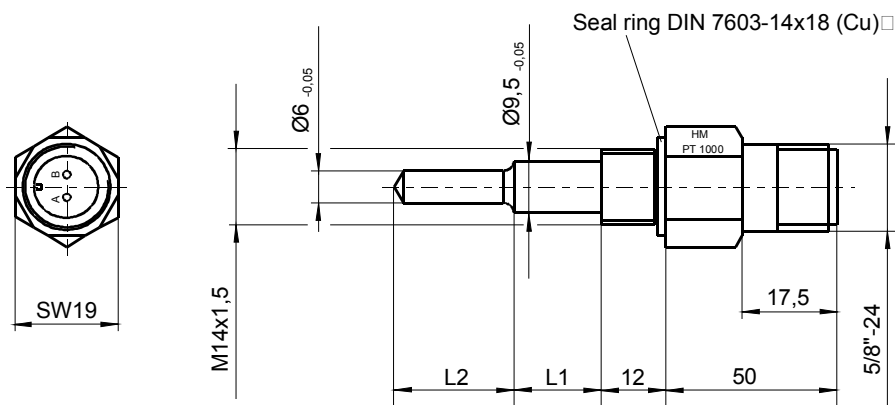


Fig. 11: PT 1000 - Sensor

Temperature Sensor	EDV- No.	L1(mm)	L2 (mm)	Thread G
PT 1000 long	600-00-063-00	16	22	M 14 x 1,5
PT 1000 short	600-00-063-01	0	16	M 14 x 1,5

2.3 PT 200 - Sensor with Cable and End Sleeves (-40°C up to +800°C)

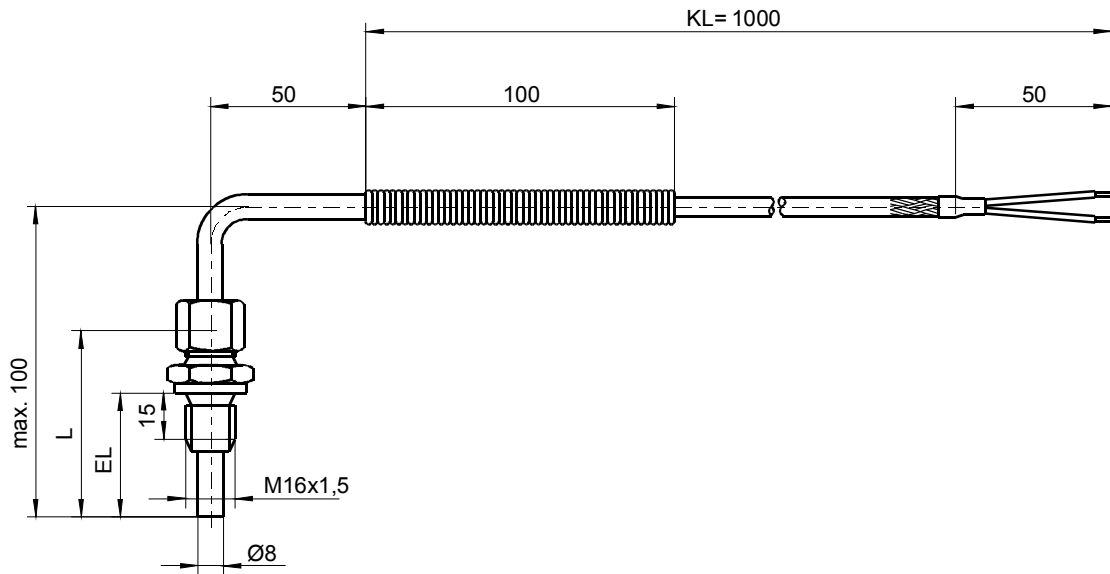


Fig. 12: PT 200 - Sensor with Cable and End Sleeves

Temperatursensor	EDV- No.	L (mm)	EL (mm)	Thread G
TS 02-60 - PT 200 -KV	600-00-063-00	60	40	M 16 x 1,5
TS 02-100 - PT 200 - KV	600-00-063-01	100	80	M 16 x 1,5

2.4 PT 200 - Sensor with Plug Connection (-40°C up to +800°C)

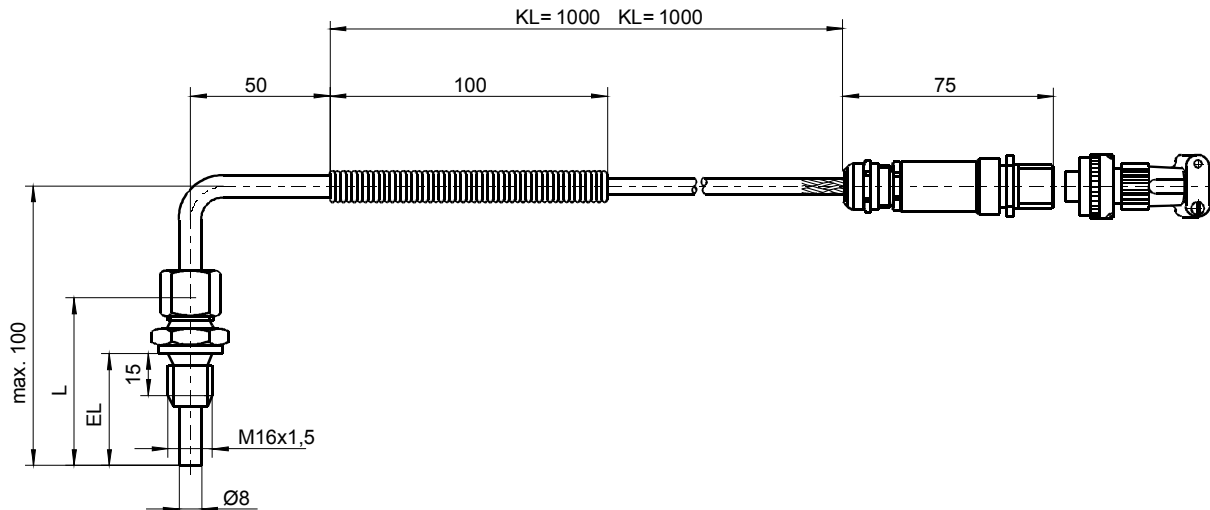


Fig. 13: PT 200 - with Plug Connection

Temperature Sensor	EDV- No.	L (mm)	EL (mm)	Thread G
TS 02-60 - PT 200 -SV	600-00-063-02	60	40	M 16 x 1,5
TS 02-100 - PT 200 - SV	600-00-063-03	100	80	M 16 x 1,5

3 Boost Pressure and Gas Pressure Sensors

3.1 With Housing and Terminal Strip

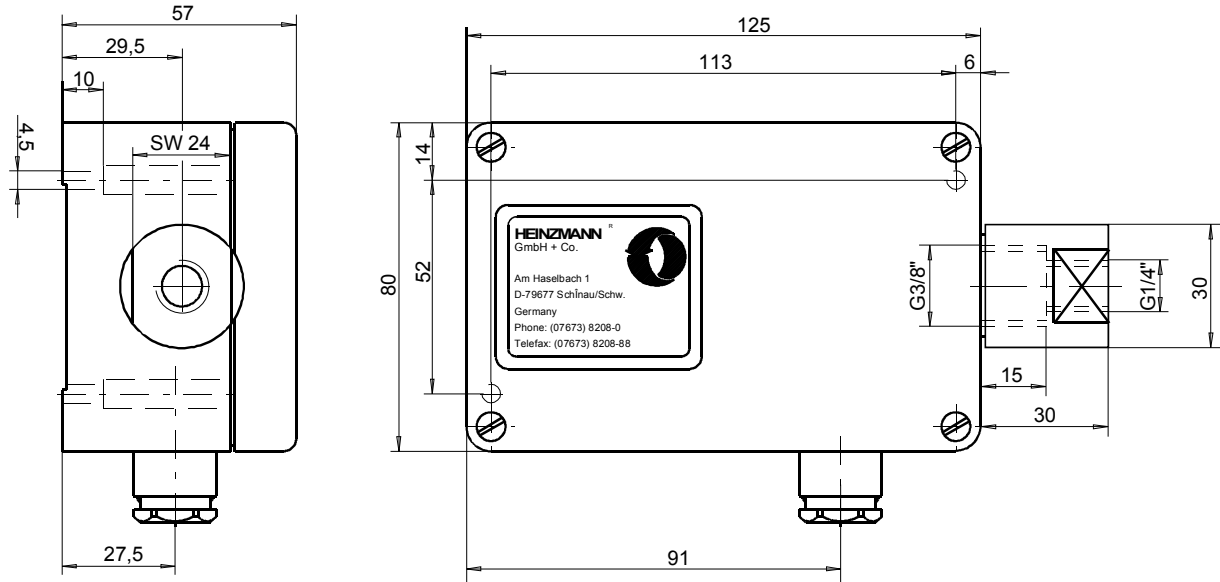


Fig. 14: Gas Pressure Sensor with Housing

Pressure Sensor	EDV- No.	Maximum operating Pressure (bar rel.)
DSG 04 - 2	600-00-056-00	2
DSG 04 - 5	600-00-056-01	5
DSG 04 - 10	600-00-056-02	10

3.2 With Plug Connection

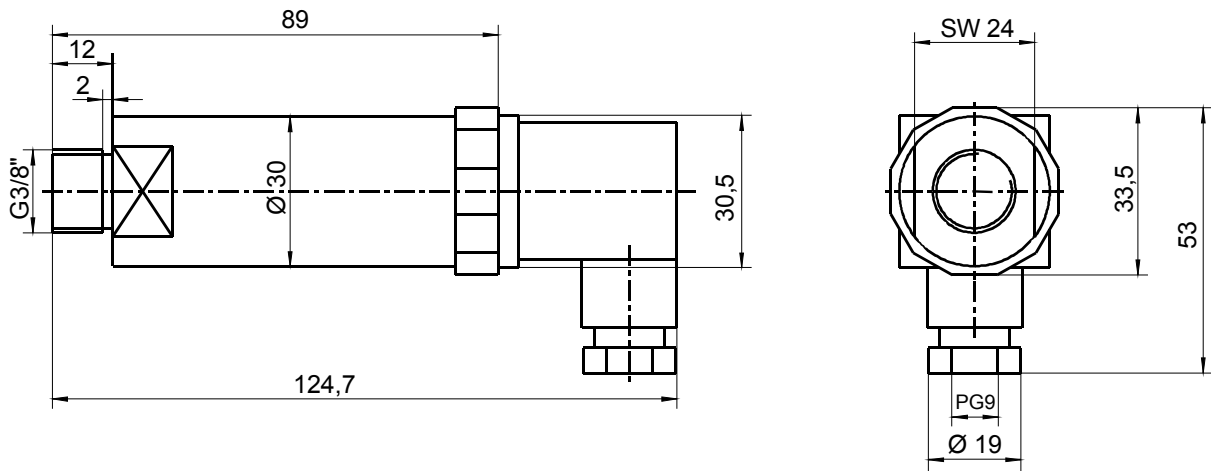


Fig. 15: Gas Pressure Sensor with Plug Connection

Pressure Sensor	EDV- No.	Maximum operating Pressure (bar rel.)
DSL 01 - 2	600-00-057-00	2
DSL 01 - 5	600-00-057-01	5
DSL 01 - 10	600-00-057-02	10

4 Oil Pressure Sensors

4.1 With Housing and Terminal Strip

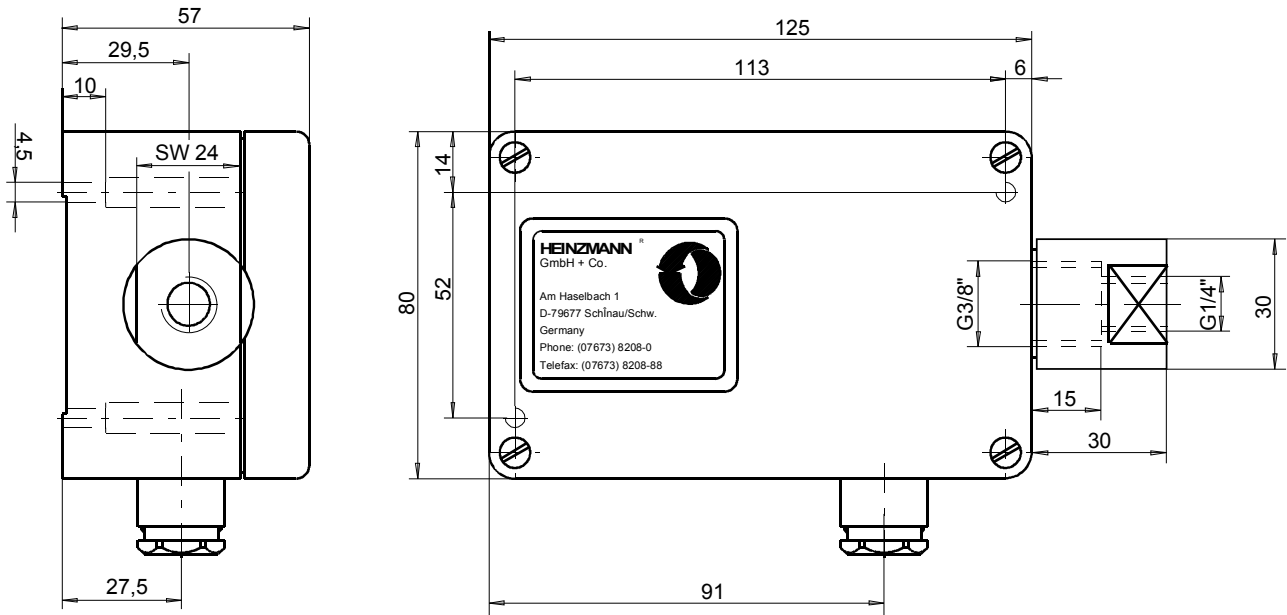


Fig. 16: Oil Pressure Sensor with Housing

Pressure Sensor	EDV- No.	Maximum operating Pressure (bar rel.)
DSO 04 - 10	600-00-076-00	10

4.2 With Plug Connection

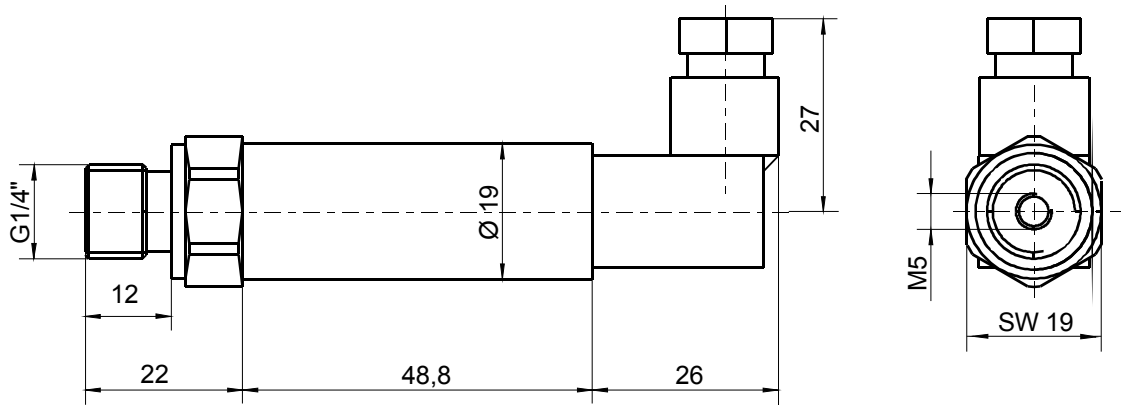


Fig. 17: Oil Pressure Sensor with Plug Connection

Pressure Sensor	EDV- No.	Maximum operating Pressure (bar)
DSO 01 - 2,5	600-00-058-02	2,5
DSO 01 - 6	600-00-058-00	6
DSO 01 - 10	600-00-058-01	10

5 Rail Pressure Sensor

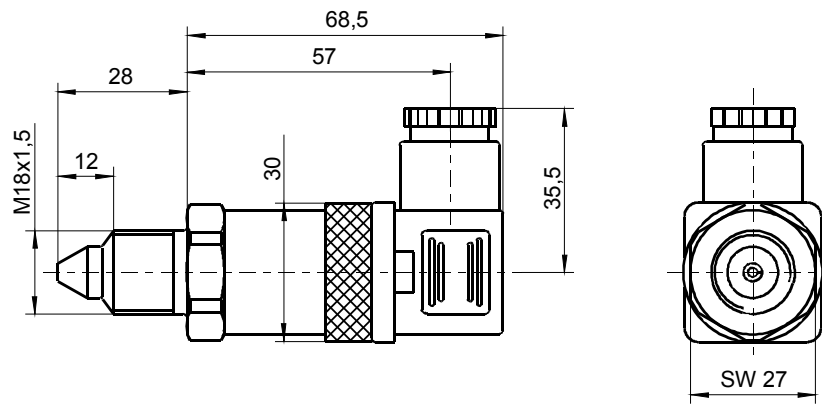


Fig. 18: Rail Pressure Sensor

Pressure Sensor	EDV- No.	Maximum operating Pressure (bar)
DSR 01 - 2000	600-00-078-00	2000

6 Rotating Shaft Sensors

Outputsignal 1 - 5 V or 4 - 20 mA

6.1 Electronic Pedal EFP..

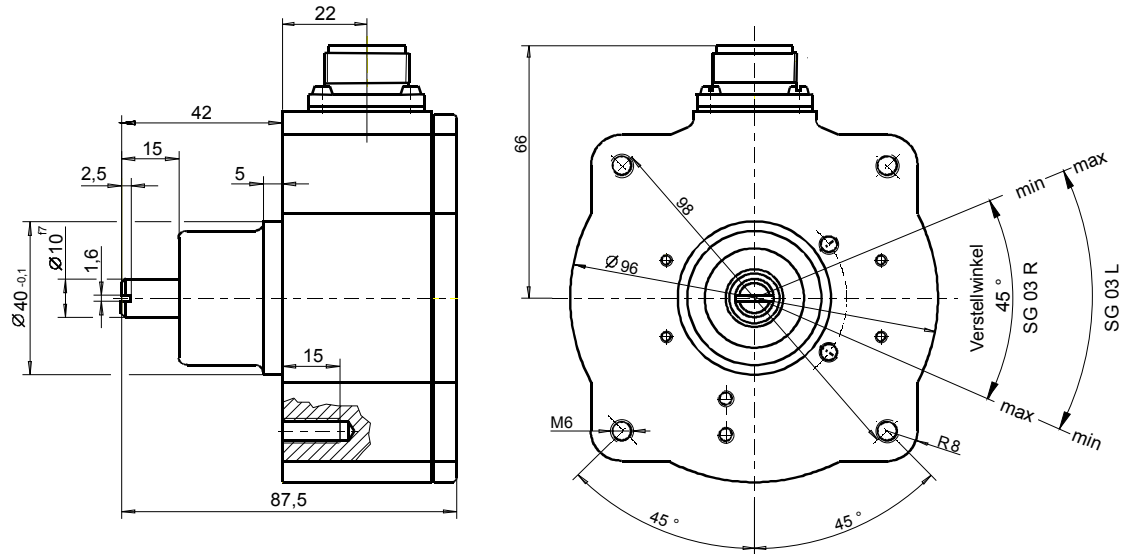


Fig. 19: Electronic Pedal EFP..

Unit	EDV- No.	Rotation Angle	Rotation Direction for increasing Output Signal
EFP.. - 02	601-00-200-01	45°	clockwise
EFP.. - 03	601-00-200-02	90°	clockwise

Corresponding plug: SV 1/2/6 - StG - 6K (EDV- No.: 010-02-172-00)

For further informations, please refer to the manual E 83 005-e.

6.2 Transducer SG 03

Separated in sensor and amplifier part

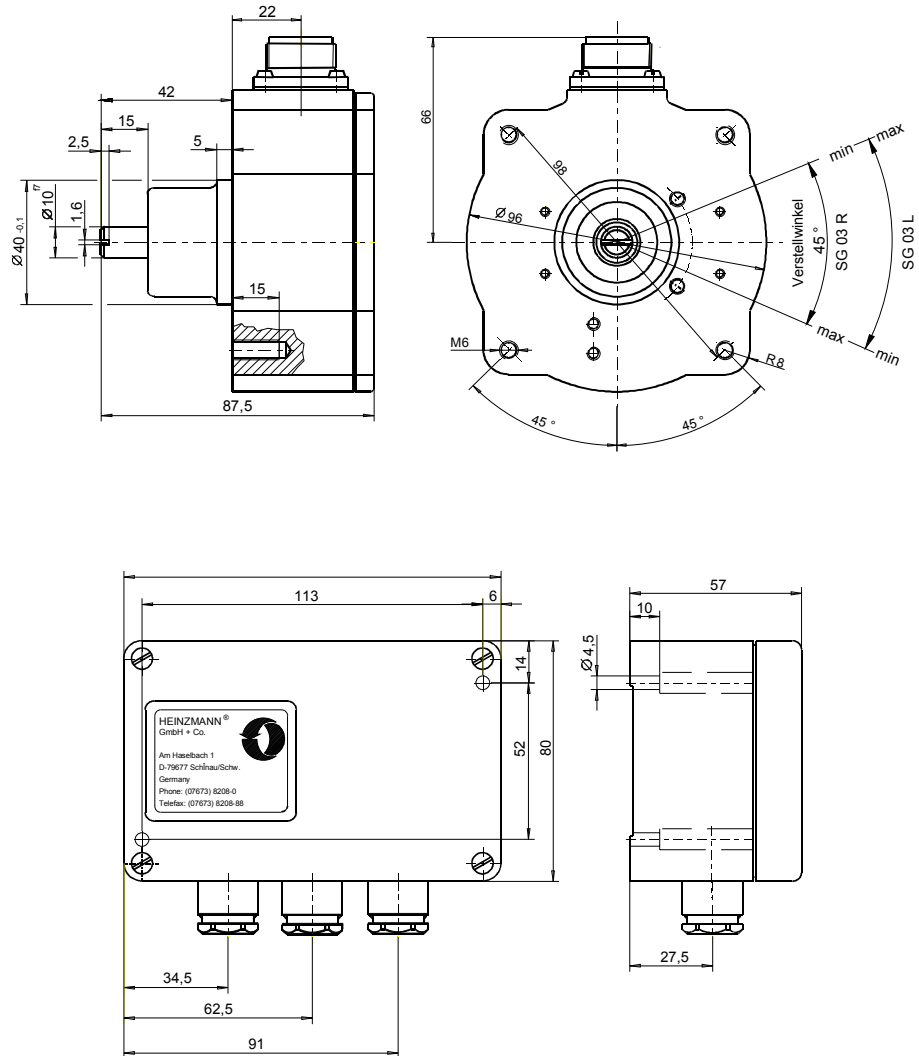


Fig. 20: Transducer SG 03

Sensor	EDV- No.	Rotation Angle
SG 03 A	600-80-012-00	45°

Corresponding plug: SV 6 - SG - 3K (EDV- No.: 010-02-109-00)

Amplifier	EDV- No.	Rotation Direction for increasing Output Signal
SG 03 V	600-80-011-00	counterclockwise or clockwise

For further informations, please refer to the manual E 97 003-e.

7 Download of Manuals

Technical manuals can be downloaded in pdf-format from our homepage:

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