



Picture: Reed transducer

The Reed transducer type *sns/rs/as* measures the position of the piston in a hydraulic cylinder. It is composed of a densely packed chain of reed switches and resistors mounted in a seamless stainless steel tube.

marco order numbers for reed transducers "*sns/rs/as[u]<xxx><y>*", where the identifier "*a*" stands for the type of housing used, contain the following information:

- s* specifies the screw seal
- u* means with voltage output
- <xxx>* specifies the active stroke in mm (L1 in drawing)
- <y>* specifies details like electrical interface, cable length, connector type.

Cable lengths are measured as follows: Lumberg - from seal to end of connector

Marco - from seal to wire end ferrule

Reed rod types:

sns/rs/as	600a	650a	650b	700a	750a	800c	850a	850b	850c	850d	850e
Cable length	205	685	265	885	735	535	685	985	1185	195	685
Scaling	Marco	Marco	Marco	Marco	Marco	Marco	Hemscheid	Marco	Marco	Marco	Marco
Connection	cable 1	cable 1	cable 1	cable 1	cable 1	cable 1	Lumberg	cable 1	cable 1	cable 1	cable 1

sns/rs/as	850f	880a	900a	1050a
Cable length	435	435	305	1185
Scaling	Marco	Marco	Marco	Marco
Connection	cable 1	cable 1	cable 1	Lumberg

sns/rs/asu	60a	860a	900a	900b	1085a	1100a	1100b	1100c
Cable length	110	110	150	175	150	150	140	500
Connection	Lumberg	Lumberg	Lumberg	Lumberg	Lumberg	Lumberg	Lumberg	Lumberg

All lengths are in millimetres.



Connection	Type as		Type asu		Type asi	
Cable 1,2,3	1 white 2 brown 3 green	piston side pickup cyl. side	1 white 2 brown 3 green	+ UB signal GND	1 white 2 brown	+ UB signal
	cable 1: wire end ferrule		cable 2: tin-plated		cable 3: wire end ferrule	
Lumberg	1 brown 3 blue 4 black	piston side pickup cyl. side	1 brown 3 blue 4 black	+ UB signal GND	1 brown 3 blue	+ UB signal

Technical Data

Operating pressure	500 bar
Resolution	4mm
Connection	3 wire cable, 5 mm Ø or Lumberg connector
Temperature range	-20°C to +60°C
Degree of protection	IP68
Approval ATEX	I M1 EEx ia I, INERIS 03ATEX0116
Approval Russia	GOST-R
Approval Ukraine	GOST-U

The approvals listed in the table above are only valid if the *sns/rs/as<xxx><y>* reed transducer is implemented together with an *sns/rs/i, i2, ih* or *ih2* adapter.

Adapter input parameters

Adapter type	U_i	I_i	L_i	C_i
<i>sns/rs/i, i2, ih, ih2</i>	13.2 V	2 A	0	1 µF in series with 199.6 Ω

Input parameters, reed transducer with voltage output

Transducer	U_i	I_i	L_i	C_i
<i>sns/rs/asu</i>	13,2 V	2 A	0	1 µF in series with 322,6 Ω

Application

The *sns/rs/as* reed transducer is activated coaxially by an *sns/rs/magn.x* magnet. Its pressure resistant design makes it suitable for use in high-pressure hydraulic cylinders.

The marco reed transducers are designed to be used with marco magnets. The resolution specified by marco can only be attained by using marco magnets as only these have the magnetising zones required by our reed transducers.

(*) see data sheet *doc:D/sns/rs/006*.

Order Number	Release	Description
<i>sns/rs/as<xxx><y></i>	2.0	Reed transducer, for <xxx> mm stroke, type <y>
<i>sns/rs/asu<xxx><y></i>	2.0	Reed transducer, for <xxx> mm stroke, voltage output, type <y>