

Bourdon Tube Pressure Gauges

NCS 96 (3.78")
144 (5.67")

Models **RQB**
RQS

Square Case with Front Frame, Wide Rim (RQB) or Narrow Rim (RQS) with Limit-Switch Contact Assemblies

This data sheet contains ordering information, minimum pressure ranges, information about electrical connections and dimensional drawings of Bourdon tube pressure gauges models RQB and RQS with limit-switch contact assembly.

Standard Configuration

Data sheet 1500 contains the important features of these models without electrical accessories. These technical details are valid also for gauges assembled with limit-switch, as far as you do not find a deviating description below.

For detailed information about use and operation of our limit-switch contact assemblies please note our **general information leaflet 9000**, and for further information, especially about the available make/break operations, see the data sheets for the individual limit-switch models:

Mechanical Data sheet **9100**
(Standard- and magnetic contacts)

Inductive Data sheet **9200**

Electronic Data sheet **9201**

Pneumatic Data sheet **9300**

Minimum Pressure Ranges

Every pressure gauge needs a sufficient amount of torque to operate a limit-switch contact assembly with minimized error. The following minimum pressure ranges are to consider:

Limit-Switch Type:	Minimum Pressure Ranges	
	NCS 96 (3.78")	NCS 144 (5.67")
1 x Standard 2 x Standard	1.0 bar (15 psi) 1.6 bar (30 psi)	
1 x Magnetic 2 x Magnetic	1.6 bar (30 psi) 2.5 bar (60 psi)	
1 x Inductive 2 x Inductive	1.0 bar (15 psi) 1.6 bar (30 psi)	1.0 bar (15 psi) *1.6 bar (30 psi)*
1 x Electronic 2 x Electronic	1.0 bar (15 psi) 1.6 bar (30 psi)	1.0 bar (15 psi) *1.6 bar (30 psi)*
1 x Pneumatic 2 x Pneumatic	1.0 bar (15 psi) —	1.0 (15 psi) 1.6 (30 psi)

* with switching function 11 or 22 upon request only

Pressure gauges with 3 or 4 limit-switch contacts upon request.

Window

Acrylic glass lens



Electrical Connection

on the backside of the case (compare drawings overleaf),

- Mechanical contacts (standard [S] or magnetic [M]): 1 m connection cable
- Inductive / electronic limit-switch assemblies (I, E): NCS 96: 1 m connection cable
NCS 144: Terminal box with 6 terminals
- Pneumatic limit-switch assemblies (P): PE converter (IP 30), one for each limit-switch (NCS 96 max. 1 limit)

Optional Special Configurations e.g.

- Other electrical connections, e.g.:
Right-angle plug connector DIN EN 175301-803 upon request
Universal plug connector (6 terminals and a ground terminal), for NCS 144 with standard or magnetic contact only
PP-converter for pneumatic limit-switch assemblies
Others upon request

How to Order

The ordering code of the individual gauge model RQB/RQS (compare data sheet 1500) is extended by the

- Code letter for the limit-switch contact assembly: **S, M, I, E** or **P** and the
- Code number for the make/break operation, e.g. **1, 11, 12, 2, 22, 21**
(Please compare the data sheet for the limit-switch contact!)

Examples:

RQS 96-3, 0-6 bar, G ½ B, **M1**
RQB 144-1, -1/+9 bar, ½" NPT, **I1**

Case Configuration, Electrical Connections, Dimensional Data and Weight

The dimensions are the same as from the basic model, except the front-to-back sizes, **dimensions B and dimension g2**, see table below.

The locations of the electrical connections are shown in the dimensional drawings below. Others than standard locations are available only upon request at extra charges.

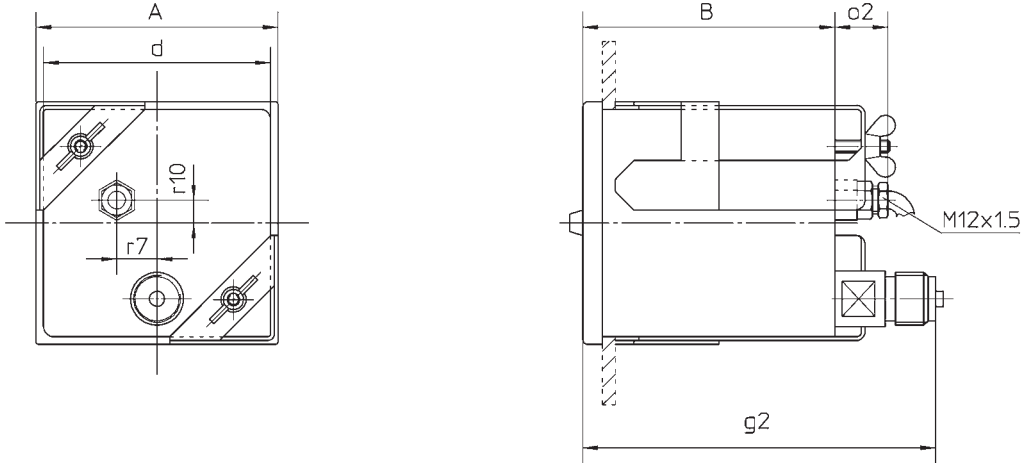
For the other dimensions, please see data sheet 1500.

Technical drawings for the PP/PE converter (pneumatic limit-switch assemblies) upon request.

NCS 96 (3.78")

Lower back connection,
clamp clip for panel mounting (standard)

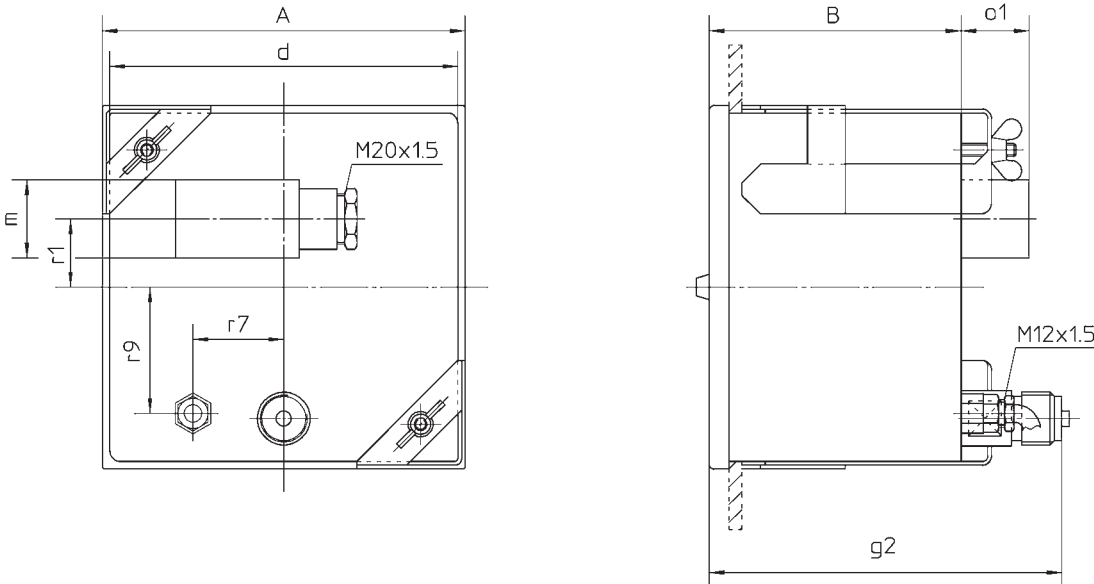
Connection cable, cable bushing M12 x 1.5 in the case back



NG 144

Lower back connection,
clamp clip for panel mounting (standard)

Connection cable, cable bushing M 12 x 1.5 in the case back,
Terminal box, or Universal plug connector



Dimensional Data (mm / inches) and Weight (kg / lb)

Case	A (=NCS)	B	d	g2	m	o1	o2	r1	r7	r9	r10	Weight (approx.)	
96 x 96 3.78 x 3.78	96	100 3.94	90 3.54	140 5.51	—			21 .83	—	16 .63	—	9 .35	1.10 2.43
144 x 144 5.67 x 5.67	144		136 5.35		31 1.22	27 1.06	—	27 1.06	3 .12	50 1.97	—	1.70 3.75	