

# Industrial Automation

**IMI Norgren** 

## HR84G - Pressure regulator For Extreme Temperature applications Excelon® Plus Modular System

- Port size: 3/8" ... 3/4"(ISO G/PTF)
- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- Salt Spray compliant to ISO 9227

 ABS cover with High impact properties





#### Technical features pressure regulator

Medium:

Compressed air only

Maximum supply pressure: 20 bar (290 psi)

Outlet pressure ranges:

0.3 ...10 bar (4 ... 145 psi), 0.3 ... 4 bar (4 ... 58 psi) optional, 0.7...17bar (10...247psi) optional

Gauge:

Gauge port as standard (Rc 1/8 or 1/8 PTF) Integrated gauge as option Port size

G3/8, G1/2, G3/4, 3/8 PTF, 1/2 PTF, 3/4 PTF Diaphragm Type: Relieving & Non-Relieving

Flow:

116 dm³/s at port size:  $\frac{1}{2}$ ", Inlet pressure 10 bar (145 psi), 6.3 bar (91 psi) set pressure and a  $\Delta p$ : 1 bar (14.5 psi) doop from set.

Ambient/Media temperature:

Unit with gauge port without integrated gauge :

 $-40 \dots +80^{\circ}\text{C} (-40 \dots +176^{\circ}\text{F})$  Air supply must be dry enough to avoid ice formation at temperatures below  $+2^{\circ}\text{C} (+35^{\circ}\text{F})$ 

Atex:

Regulators HR84 are in conformity with Atex 2014/34/EU

(Ex) II 2 GD Ex h IIC T6 Gb EX h IIIC T85°C Db Materials:

Body: Die cast aluminium Body covers: ABS (Magnum 3904) Bonnet: Die cast Aluminium Valve: Brass and Low temperature Nitrile Elastomers: Low temperature

Nitrile

Diaphragm: Low temperature Silicone, polyester reinforced Lower spring rest and diaphragm

retainer: Aluminium

#### Technical data HR84G - standard models with gauge port Rc1/8 (without gauge)

| S | ymbol | Port size | Pressure range (bar) | Adjustment | Diaphragm<br>Type | Weight<br>(kg) | Model*)       |
|---|-------|-----------|----------------------|------------|-------------------|----------------|---------------|
|   |       | G3/8      | 0.3 10               | T-bar      | Relieving         | 0.75           | HR84G-3GT-RMN |
|   |       | G1/2      | 0.3 10               | T-bar      | Relieving         | 0.75           | HR84G-4GT-RMN |
|   |       | G3/4      | 0.3 10               | T-bar      | Relieving         | 0.73           | HR84G-6GT-RMN |

<sup>\*)</sup> All models shown here are supplied with gauge port applicable for flow direction left to right.

With flow direction right to left please use the online configurator <a href="www.norgren.com/en/support/configurators/air-preparation-configurator">www.norgren.com/en/support/configurators/air-preparation-configurator</a> or contact IMI Norgren



#### Option selector \*1) HR84G-★★T-★★ Port size Substitute Substitute Gauge 3/8" 3 Without integrated gauge but Ν with gauge port 1/8" 1/2" 4 With integrated gauge \*3) G 3/4" 6 Thread form Substitute Pressure range \*2) Substitute PTF Α 0.3 ... 4 bar F ISO G G 0.3 ... 10 bar (standard) Μ Adjustment Substitute 0.7 ...17 bar S T-bar Diaphragm Type Т Substitute Relieving R \*1) All models shown here are applicable for flow direction left to right. Non-Relieving Ν With flow direction right to left please use the online configurator www.norgren.com/en/support/configurators/air-preparation-configurator or

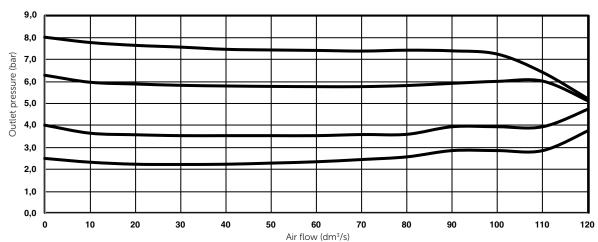
- \*2) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.
- \*3) Attention: With integrated gauge temperature range of the unit changes to -20°C ... +65°C

#### Flow characteristics

Inlet pressure: 10 bar (145 psi)

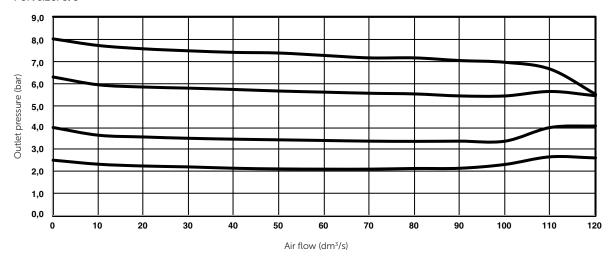
Port size: 1/2"

contact IMI Norgren



Inlet pressure: 10 bar (145 psi)

Port size: 3/8"





#### **Accessories**

























Port Adaptors









\*4) -10°... +85°C (-14° ...+185°F)







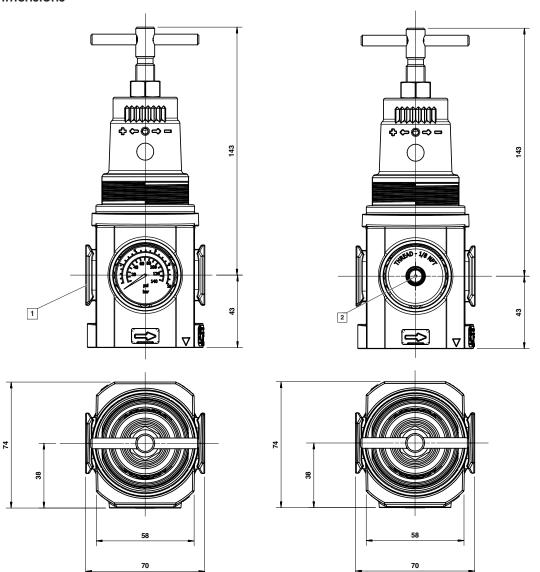


#### **Dimensions**

Dimensions in mm Projection/First angle







<sup>Main ports 3/8", 1/2" or 3/4"
(ISO G/PTF)

Gauge Port Rc 1/8 for ISO G and 1/8 PTF for PTF main ports</sup> 

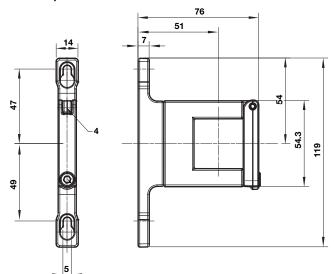


#### **Accessories**

Dimensions in mm Projection/First angle

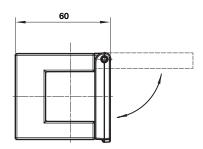


#### Quikclamp with wall bracket



#### Quikclamp





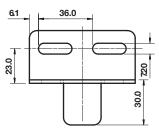
#### Panel mounting nut

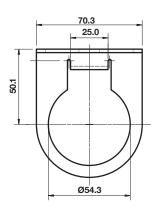


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Recommended panel hole size: ø 55 mm ... 57 mm Panel thickness: 2 ... 6 mm

### **Neck mounting bracket**





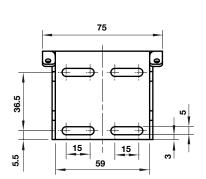


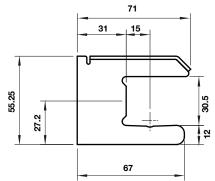
#### Mounting bracket

Dimensions in mm Projection/First angle



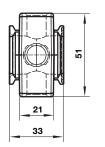


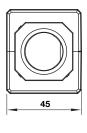


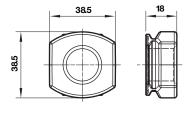


Pressure sensing block

Pipe adaptor

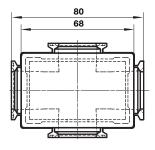


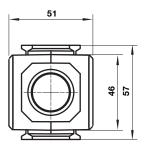


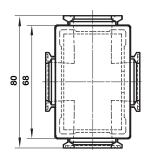


Full flow porting block horizontal

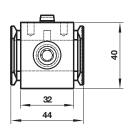
Full flow porting block vertical

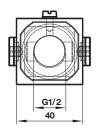


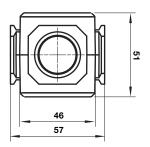




Porting block for 18D pressure switch







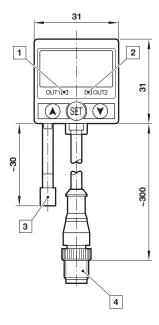


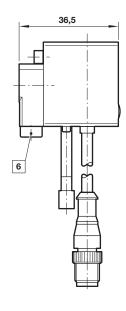
#### 51D Pressure switch - digital

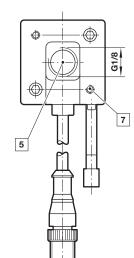
Dimensions in mm Projection/First angle





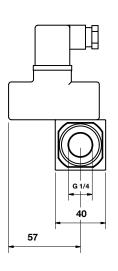


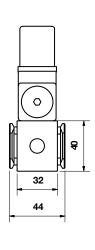




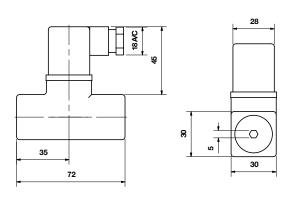
- Switch OUT 1, green LED
- Switch OUT 2, red LED
- Dustproof protector Connector M12 x 1
- Inlet port
- Alternative inlet port G1/8 plugged
- Thread for mounting screw

#### 18D Porting block and 18D assembled





#### 18D Pressure switch



#### Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/ data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.