- **3/2 Smart solenoid poppet valves; 1/4 NPT ... 3/4 NPT, G1/4 ... G3/4**
- **Partial Stroke Testing integrated into the ICO4 valve**
- **Dramatically reduces engineering requirements**
- **Up to 4.5 Cv removes need for additional QEV's and Pilot valves**
- **Offers SIL 3 performance as 1oo1**
- **Always gives maximum possible Diagnostic Coverage, thus facilitating maximum possible proof test intervals**

Technical features

Medium:
Pneumatic – customer to specify and confirm compatibility
Operation:
Direct solenoid operated poppet valves with integral pressure transmitter

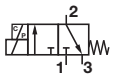
Operating pressure:
0 ... 10 bar (0 ... 145 psi)
Flow:
0,8 Cv (0,7 Kv) ... 4,5 Cv (3,9 Kv)
Port size:
1/4 NPT, 1/2 NPT, 3/4 NPT, G1/4, G1/2, G3/4

Mounting position:
Solenoid vertical
Ambient/media temperature:
1/4 ... 1/2 NPT resp. G1/4 ... 1/2
-40 ... +60°C (-40 ... +140°F)
3/4 NPT resp. G3/4
-40 ... +50°C (-40 ... +122°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:
Valve body, trim, coil housing and top cover:
stainless steel 1.4404 (316 L)
O-rings seats & seals: NBR/FPM

Other seal materials available on request

Technical data - standard models

Symbol	Port size	Cv	Conduit connection	Seal Material	Weight (kg)	Weight (lbs)	Drawing No.	Model
	1/4 NPT	0,8	1/2 NPT	NBR	6,7	14,7	1	Y413AA1H2BS
	G1/4	0,8	M20 x 1,5	NBR	6,7	14,7	1	Y413AE1H1BS
	1/2 NPT	2,1	1/2 NPT	NBR	6,9	15,2	2	Y413AA3H2BS
	G1/2	2,1	M20 x 1,5	NBR	6,9	15,2	2	Y413AE3H1BS
	3/4 NPT	4,5	1/2 NPT	NBR	8,8	19,4	3	Y413AA5H2BS
	G3/4	4,5	M20 x 1,5	NBR	8,8	19,4	3	Y413AE5H1BS

Other product and body material available for more information contact Maxseal technical service

Electrical details

Voltage:	24 V d.c.
Rating:	
Voltage tolerance	+10%/-8% of Nominal
Power consumption:	Charging (~4 Mins) 6,7 W (1/4"); 11,8 W (1/2"), 17,3 W (3/4") Steady-State 5,7 W (1/4"); 10,8 W (1/2"), 16,4 W (3/4")
Insulation class	Class H
Conduit connection	1/2 NPT or M20 x 1,5
IP-Protection class EN 60529	IP66

ATEX details

Certification:	Ex d IIC T4/T6
Ambient temperature:	**T4:** **1/4 ... 1/2 NPT resp. G1/4 ... 1/2** -40 ... +60°C (-40 ... +140°F) **3/4 NPT resp. G3/4** -40 ... +50°C (-40 ... +122°F) **T6:** -40 ... +43°C (-40 ... +110°F)

Option selector

Y413★★★★★BS

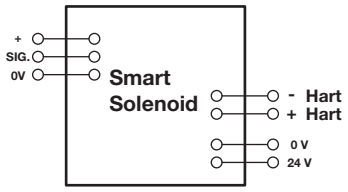
Operation	Substitute
Automatic	**A**
Push button, Manual reset	**P**
Port size	**Substitute**
1/4 NPT	**A1**
G1/4	**E1**
1/2 NPT	**A3**
G1/2	**E3**
3/4 NPT	**A5**
G3/4	**E5**

Conduit connection	Substitute
M20 x 1,5 mm	**1**
1/2 NPT	**2**
M20x1,5 with Exia HART Interface Junction box	**3**
1/2 NPT with Exia HART Interface Junction box	**4**
Seat/seal material	**Substitute**
NBR	**H**
FPM	**V**

IMI Precision Engineering

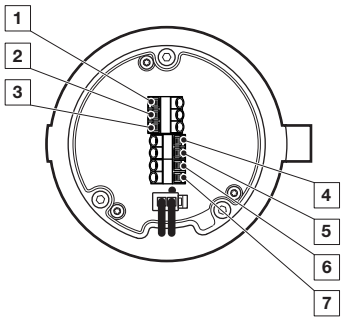
Wiring diagram

Potentiometer input



Hart interface

Contol voltage

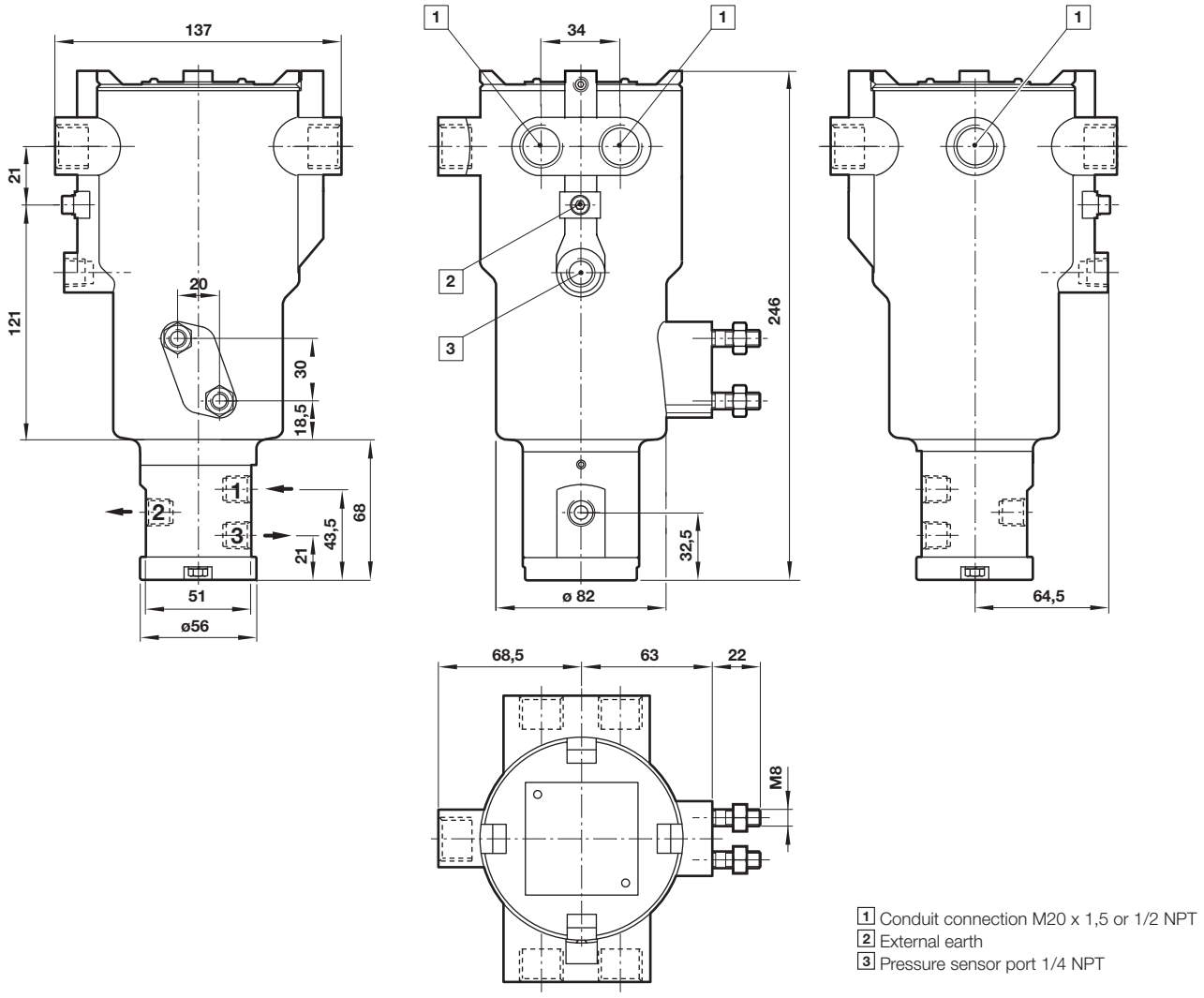


Potentiometer connection (2,5 mm² cable maximum)
1 +
2 Signal
3 0 V
Hart interface connection (2,5 mm² cable maximum)
4 -
5 +
Control valve connection (2,5 mm² cable maximum)
6 0 V
7 24 V

Dimensions

1

Dimensions shown in mm
Projection/First angle

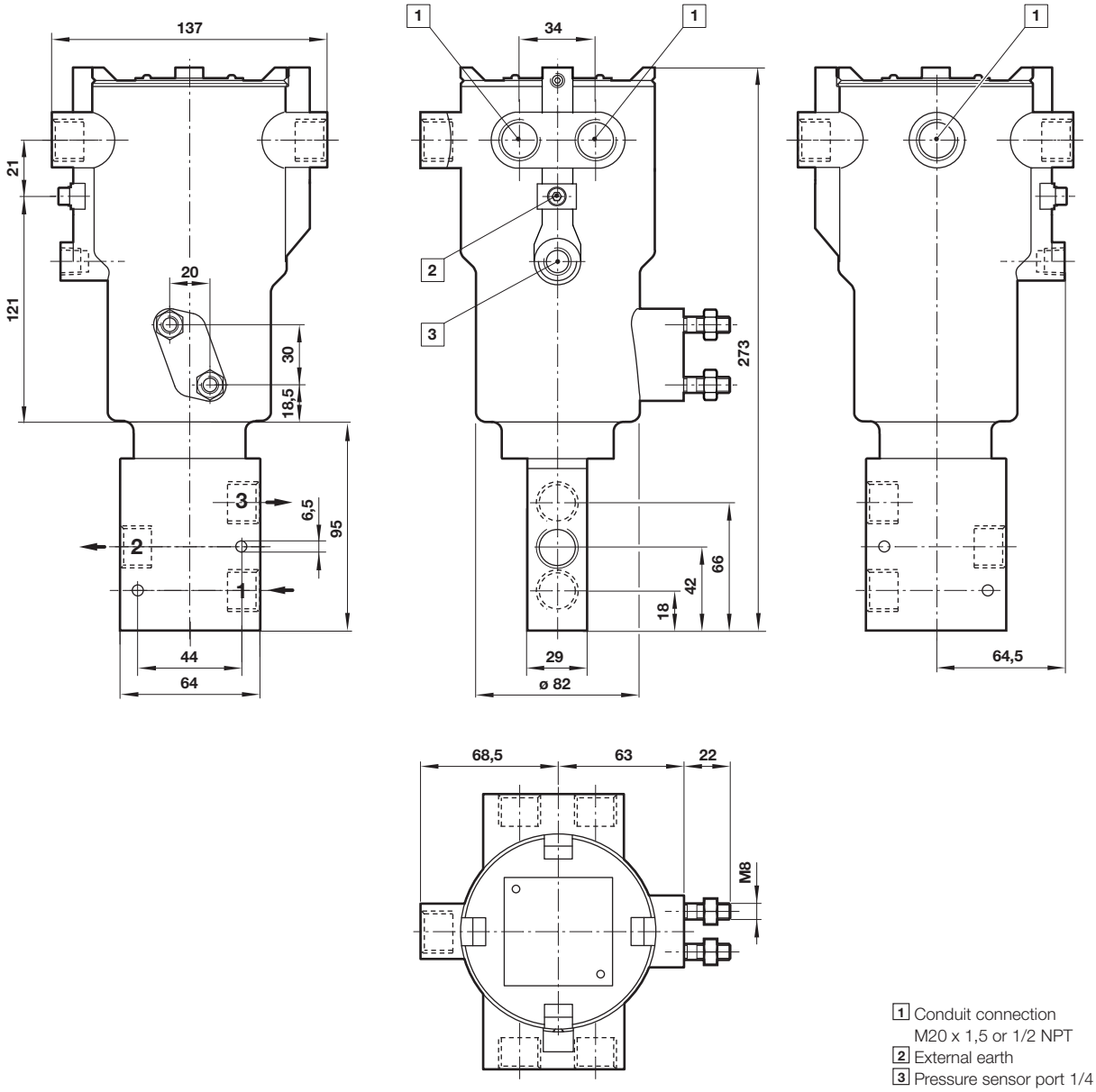


1 Conduit connection M20 x 1,5 or 1/2 NPT
2 External earth
3 Pressure sensor port 1/4 NPT

Dimensions

2

Dimensions shown in mm
Projection/First angle

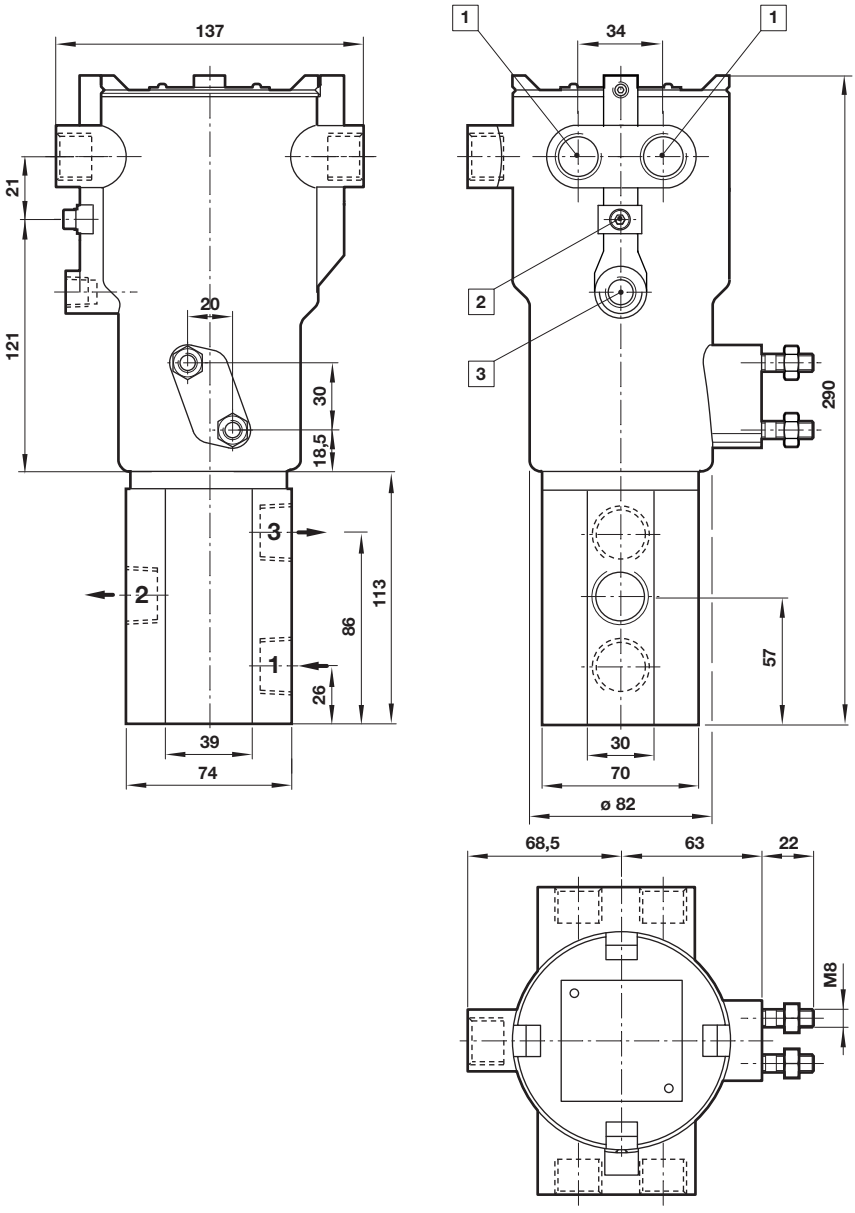


1 Conduit connection
M20 x 1,5 or 1/2 NPT
2 External earth
3 Pressure sensor port 1/4 NPT

Dimensions

3

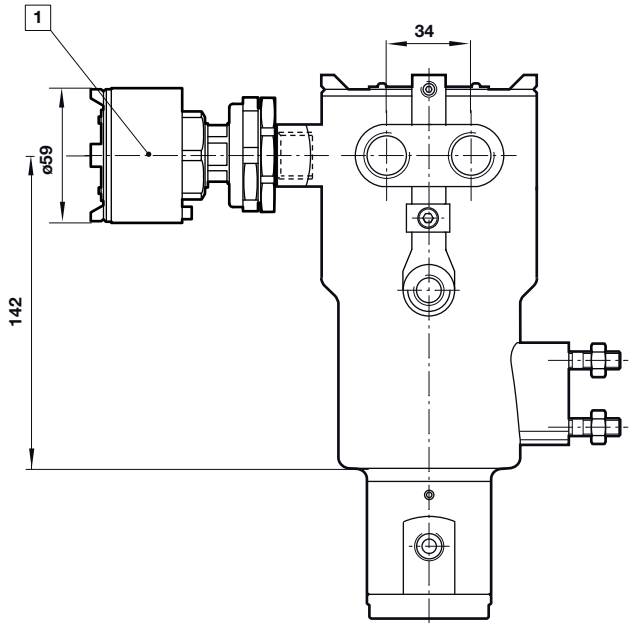
Dimensions shown in mm
Projection/First angle



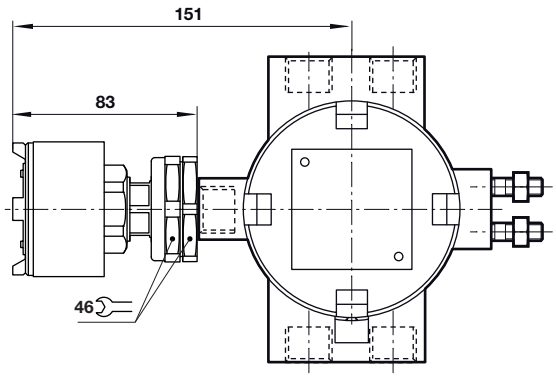
1 Conduit connection
M20 x 1,5 or 1/2 NPT
2 External earth
3 Pressure sensor port 1/4 NPT

Hart junction box dimensions

Dimensions shown in mm
Projection/First angle



1 Hart junction box



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
IMI Precision Engineering, Thompson Valves 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.
For further information please see Functional Safety Manual MI0560.