

# Compact Panel

## Manifolds/Changeover Regulators

DCATLABO1259XEN2

### Specifications

For other materials or modifications, please consult TESCO.

#### FLUID MEDIA

Non corrosive/corrosive gases and mixtures up to high purity of 6.0 (99.9999 Vol%)

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

##### Maximum Inlet Pressure

4350 psig / 300 bar

##### Outlet Pressure Range

50/101/145/174/217/290/507/725/870/1450/2175 PSIG\*  
3,5/7/10/12/15/17/20/35/50/60/100/150 bar \*

##### Material

Brass or Stainless Steel

##### Leak Rate

$10^{-7}$  mbar l/s He

##### Operating Temperature

-4°F to 158°F / -20 °C to 70 °C

##### Nominal Flow Rate (Air 145 PSIG/10 bar Outlet Pressure)

1 Nm<sup>3</sup>/h [0.6 scfm] reduced version for H<sub>2</sub>/He, C<sub>v</sub> = 0,06

9 Nm<sup>3</sup>/h [5.3 scfm], C<sub>v</sub> = 0,06

15 Nm<sup>3</sup>/h [8.8 scfm], C<sub>v</sub> = 0,15

\* Outlet pressure range depends on compact panel version

#### MEDIA CONTACT MATERIALS

##### Body

316 Stainless Steel or Nickel-plated Brass

##### Diaphragm

316L Stainless Steel

#### SONSTIGES

##### Inlet Port Type and Size

G 3/8" female with compression fitting  
Compression fitting 6 mm

##### Outlet Port Type and Size

Process Outlet: G 1/4" \*

Purge Gas: G 1/4" \*

Relief Valve: M 12x1 \*\*

##### Cleaning

Cleaned for Oxygen Service

##### Weight (approximately)

17.6 lbs / 8.0 kg for 2x1 cylinder

7.7 lbs / 3.5 kg for 1 cylinder

\* Adapters to all metric and imperial tube sizes available!  
Please check data sheet "Fittings" for adapters

\*\* Adapter PIN to metric tube available!  
Please contact TESCO.



PANEL FOR 1 CYLINDER  
WITH CONTACT GAUGE



DUAL STAGE COMPACT PANEL  
AUTOMATIC CHANGEOVER WITH CONTACT GAUGES

The TESCO Compact Panel is a central gas supply unit for the pressure control of analytical gases in laboratory facilities. Depending on the requirements, these units switch over to a spare cylinder in order to enable a continuous gas supply. The use of contact gauges allows the monitoring of empty gas cylinders.

### Applications

- Central gas supply for the distribution of gases in laboratory applications
- Supply of gases for laser cutting applications
- Various other processes requiring continuous gas supply

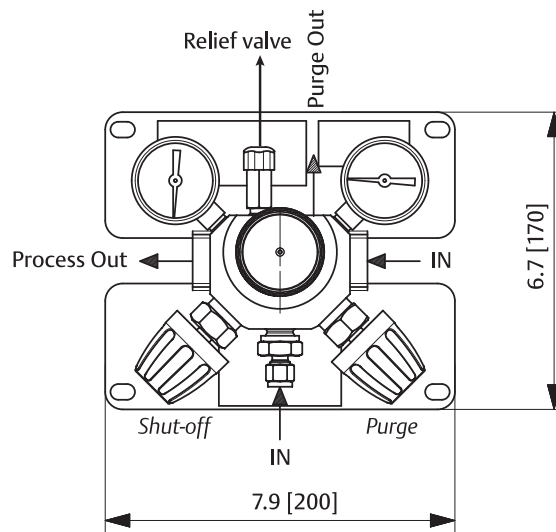
### Features and Benefits

- A few internal connections and free volume through monoblock construction with precise, pure metal seated connection port and completely unthreaded wetted surface
- Suitable for ECD (Electron Capture Detector) applications
- Short purging time when changing cylinders
- Easy and quick to maintain - a P & ID is located on front of the panel
- Stainless Steel mounting plate for corrosive environments
- Very compact design fits into standard gas cabinets even 9.84 inch / 25 cm grid dimension
- All versions contain a filter element in the inlet

## Compact Panel Drawing

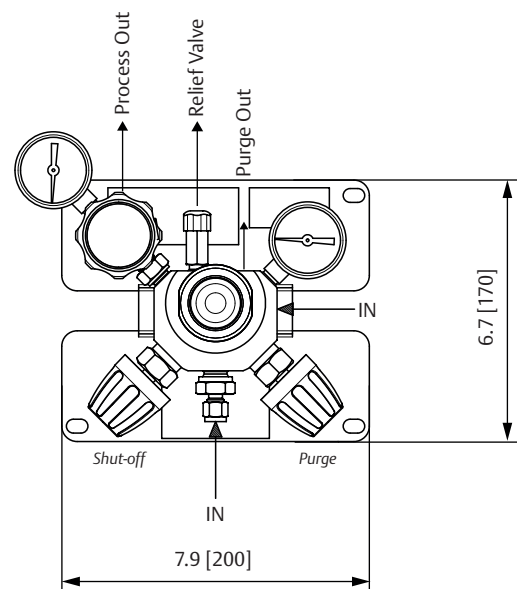
### KP1

(Compact panel, 1 cylinder, standard manometer)



### KP12

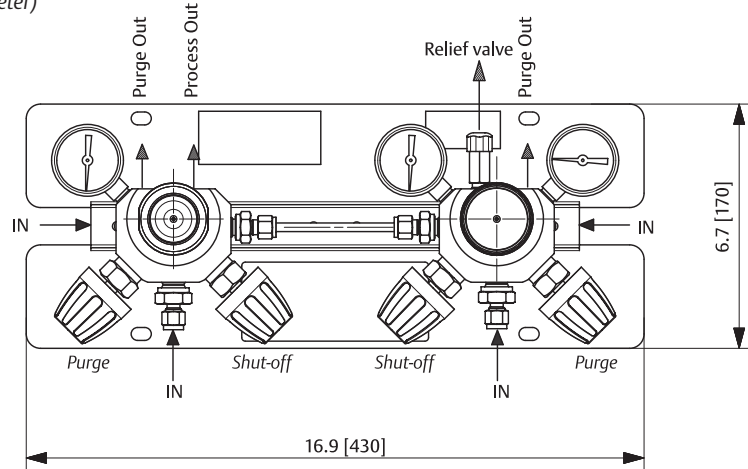
(Compact panel, 1 cylinder, dual stage)



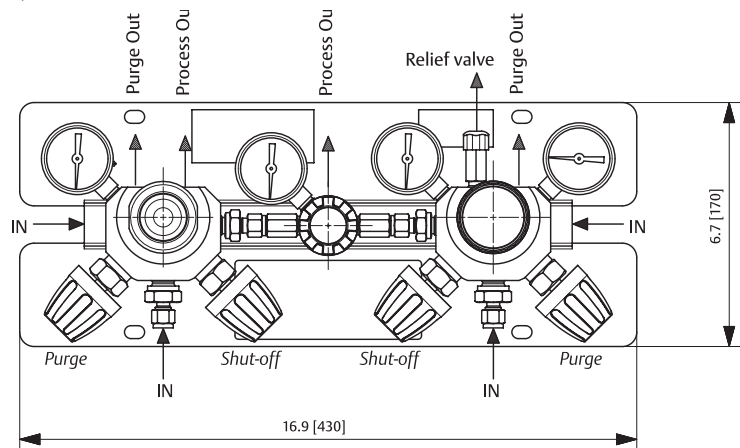
All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

## Compact Panel Drawing

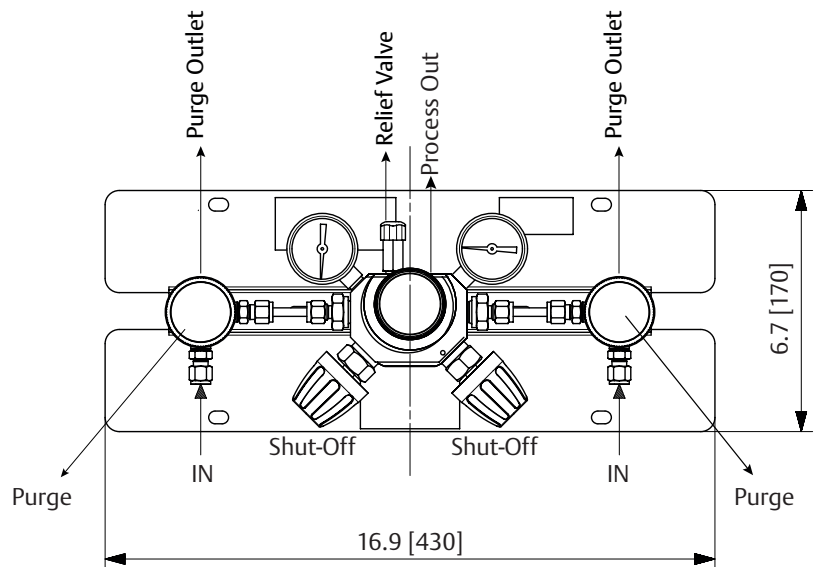
**KPA – Automatic changeover, single-stage**  
(Compact Panel, 2x1 cylinder, standard manometer)



**KPA2 – Automatic changeover, dual-stage**  
(Compact Panel, 2x1 cylinder, standard manometer)



**KPME**  
(for 2x1 cylinder, manual changeover,  
single-stage with purge valve)



All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

# Compact Panel Part Number Selector

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCO M for more information.

Example for selecting a part number:

BASIC SERIES	MATERIAL	INLET PRESSURE DISPLAY	OUTLET PRESSURE PSIG / BAR	PERFORMANCE	LABEL	CONNECTION PROCESS *	CONNECTION FOR DISCHARGE *	GAS GROUPS CONNECTING BEND PN 200M **	ACCESSORY	UPSTREAM PRESSURE PSIG / BAR
<b>KPA2-</b> 1 cylinder	<b>6</b> – Messing	<b>SM</b> – Standard gauge	<b>1</b> – 145 / 10	<b>R</b> –blank– Standard 9 Nm <sup>3</sup> /h [5.3 scfm] Air Cv 0.06	<b>T</b> –TESCOM	<b>A</b> –G1/4 female	<b>A</b> –no screw connection	<b>0</b> –without connecting bend	<b>Blank</b> –no accessory	<b>Blank</b> –4350 / 300
<b>KP12</b> 1 cylinders dual stage	<b>6</b> – Edelstahl	<b>KM</b> – Contact gauge	<b>2</b> – 290 / 20	<b>R</b> –reduced 1 Nm <sup>3</sup> /h [0.6 scfm] Air for H <sub>2</sub> and He Cv 0.06		<b>B</b> –ø 6 mm SST	<b>B</b> –ø 6 mm SST purge valve	<b>9</b> –Oxygen	<b>F</b> –Cylinder rack	<b>1</b> –1450 / 100 CO <sub>2</sub> /Nitrous oxide
<b>KPA</b> 2x1 cylinders, automatic changeover, single stage		<b>EX</b> – Inductiv contact gauge	<b>3</b> – 507 / 35	<b>H</b> –Standard 15 Nm <sup>3</sup> /h [8.8 scfm] Air Cv 0.15		<b>C</b> –ø 8 mm SST	<b>C</b> –ø 8 mm Brass purge valve	<b>13</b> –Compressed air	<b>S</b> –Collector pipe/extension	<b>6</b> –232 / 16 Liquid gas Ammonia **** only SST
<b>KPA2</b> 2x1 cylinders, automatic changeover, dual stage		<b>PS</b> – Standard pressure transducer	<b>4</b> – 870 / 60			<b>D</b> –ø 10 mm SST	<b>D</b> –ø 8 mm SST purge valve	<b>6</b> –non flammable gases		
<b>KPME</b> 2x1 cylinders, manual changeover		<b>PT</b> – Explosion tested pressure transducer	<b>5</b> – 1450 / 100			<b>E</b> –ø 12 mm SST	<b>E</b> –ø 8 mm Brass purge valve without screw connection *	<b>1</b> –Flammable gases		
			<b>6</b> – 2175 / 150			<b>F</b> –ø 8 mm Brass	<b>F</b> –ø 1/4" SST purge valve ø 1/4" SST relief valve	<b>10</b> –Nitrogen		
			<b>7</b> – 101 / 7 only KP12			<b>G</b> –ø 10 mm Brass	<b>G</b> –without screw connection *	<b>14</b> –Test gas		
			<b>8</b> – 217 / 15			<b>H</b> –ø 12 mm Brass	<b>H</b> –ø 8 mm SST purge valve	<b>11</b> –Nitrous oxide		
			<b>9</b> – 246 / 17 only KP12			<b>J</b> –ø 1/4" SST	<b>J</b> –ø 1/4" SST purge valve ø 1/4" SST relief valve	<b>5</b> –Toxic, flammable gas (only SST)		
			<b>10</b> – 174 / 12 only KPA2				<b>E</b> –ø 6 mm SST purge valve ø 6 mm SST relief valve	<b>GAS GROUPS CONNECTING BEND PN 300 ***</b>		
			<b>11</b> – 725 / 50 only KPA				<b>F</b> –ø 1/4" SST purge valve ø 1/4" SST relief valve	<b>56</b> –Compressed air		
			<b>12</b> – 50 / 3,5 only KP12				<b>G</b> –without screw connection *	<b>59</b> –Oxygen		
							<b>G</b> –ø 8 mm SST relief valve	<b>54</b> –non flammable gases		
								<b>57</b> –flammable gases		
								<b>N</b> –1/4 NPT female		

\* Double ferrule fitting / \*\* DIN 477-1 / \*\*\* DIN 477-5 / \*\*\*\* only Stainless Steel

Please reference data sheets "Accessories for Panels" and "Fittings" for additional accessories for compact panel.

Please reference data sheet "System Components for Compact Panels" for information about annunciator system and emergency switch-off components."



**WARNING!** Do not attempt to select, install, use or maintain this product until you have read and fully understood the TESCO M Safety, Installation and Operation Precautions.