



## Series 1700 - Miniaturized proportional pressure regulator

### General

Modern industrial applications constantly require more sophisticated and better performing pneumatic components. Flexibility and adaptability are key factor when designing a machine. The possibility to change the application parameter during operation such as for example the speed of a cylinder or the force generated by a rotary actuator are beneficial to the designer.

In the past it was necessary to design complicated pneumatic circuits based on pneumatic logic elements which required a lot of space and complicated set up, today, thanks to the electronic proportional regulators such operations are extremely easy to achieve and offer even more flexibility.

Pneumax miniaturized proportional regulators series integrates all the main features of the 521 series with the exclusion of the display and analogue/digital output.

High precision in pressure regulation, fast response speed, assembling options and reduced dimensions are the main advantages.

2

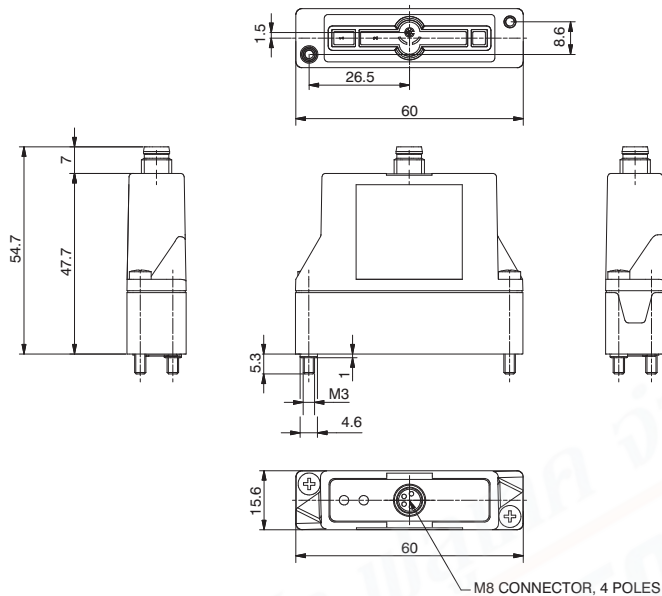
AIR SERVICE UNITS

### Features

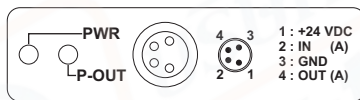
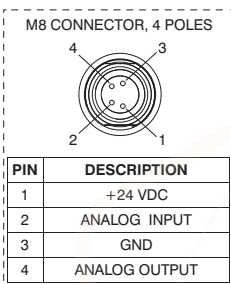
Pneumatic	Fluid	Air filtered at 5 micron and dehumidified		
	Minimum inlet pressure	Desired outlet pressure + 1 bar		
	Maximum inlet pressure	10 bar		
	Outlet pressure	Ordering code	009	
		Pressure value	0 - 9 bar	
	Nominal flowrate from 1 to 2 (6 bar $\Delta p$ 1 bar)	7 NI /min		
	Discharge flowrate (at 6 bar with 1 bar overpressure)	7 NI /min		
	Air consumption	M5 / $\varnothing$ 4		
	Operating connection	M5 / $\varnothing$ 4		
	Exhaust connection	M5 / $\varnothing$ 4		
Maximum fitting tightening	3 Nm			
Electric	Supply voltage	24VDC $\pm$ 10% (stabilised with ripple <1%)		
	Standby current consumption	55 mA		
	Current consumption with solenoid valves on	145 mA		
	Reference signal	Voltage*	0 - 10 V	
		Current*	4 - 20 mA	
	Input impedance	Voltage	10 K $\Omega$	
		Current	250 $\Omega$	
Analog outputs voltage	0,2 - 10 V (10 V to 9 bar)			
Connector	M8 4 poles			
Functional	Linearity	< $\pm$ 0,3 % F.S.		
	Hysteresis	<0,3 % F.S.		
	Repeatability	< $\pm$ 0,5 % F.S.		
	Sensitivity	< $\pm$ 0,5 % F.S.		
	Assembly position	Indifferent		
	Protection grade	IP65 (with casing fitted)		
	Ambient temperature	-5° - 50°C / 23° - 122°F		
Constructional	Body	Technopolymer		
	Seals	NBR		
	Cover for electrical part	Technopolymer		
	Weight	60 g		

\* Request during ordering process

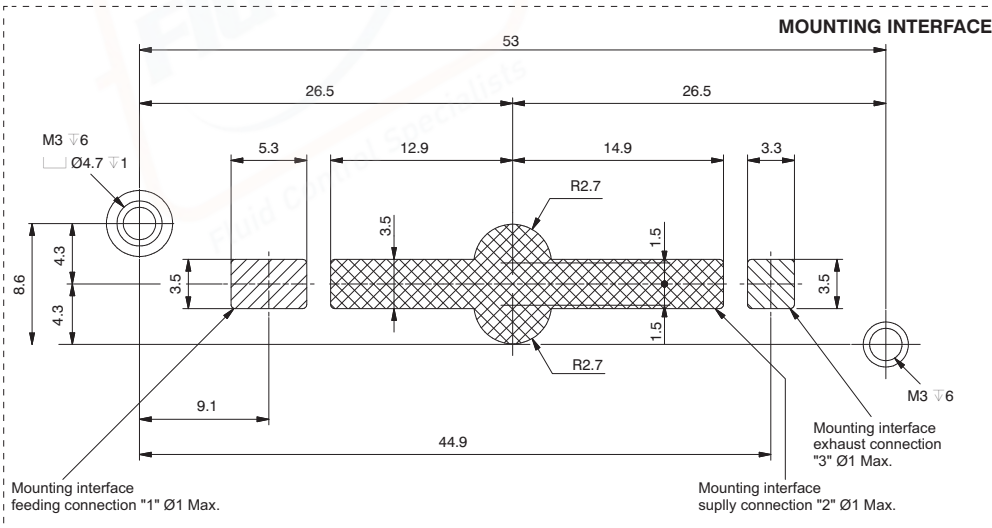
Proportional pressure regulator

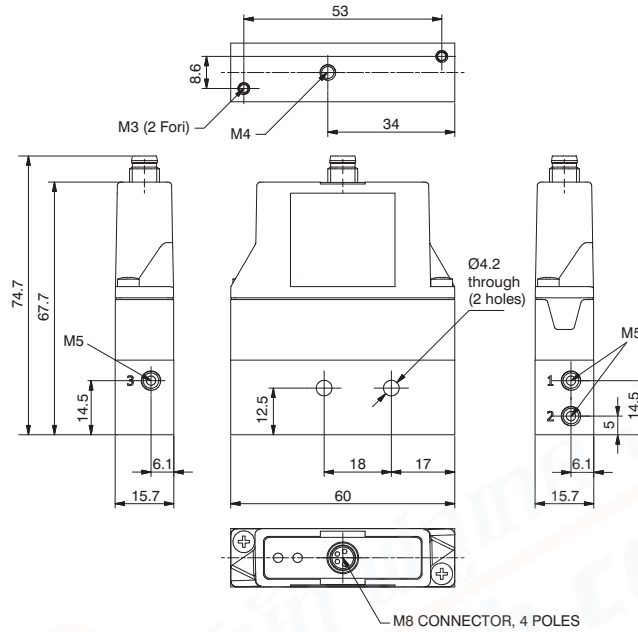


Ordering code	
<b>1700PM.V.M.0</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active 2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal C = Current signal
PRESSURE RANGE	
<b>G</b>	001= Range 0 - 1 bar 005= Range 0 - 5 bar 009= Range 0 - 9 bar



<b>PWR</b>	Green Led: The regulator is properly powered
<b>P-OUT</b>	Green Led: lights up when the outlet pressure is higher than the desired pressure minus 0.2 bar and less than the desired pressure more 0.2 bar

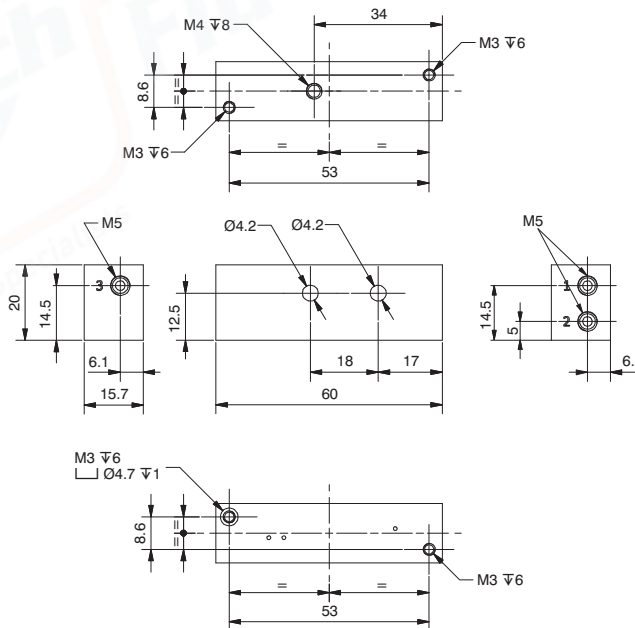




Ordering code	
<b>170EPM.V.M.G.FO</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

AIR SERVICE UNITS

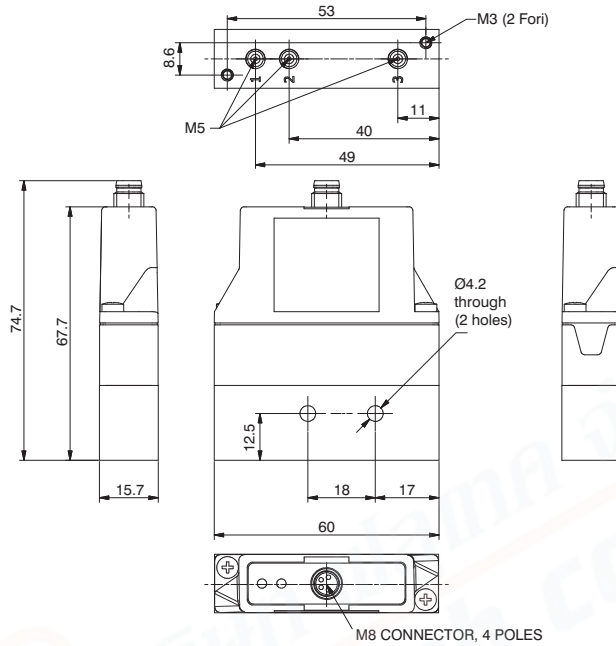


Ordering code	
<b>170M1.FO</b>	

Weight: 50 g



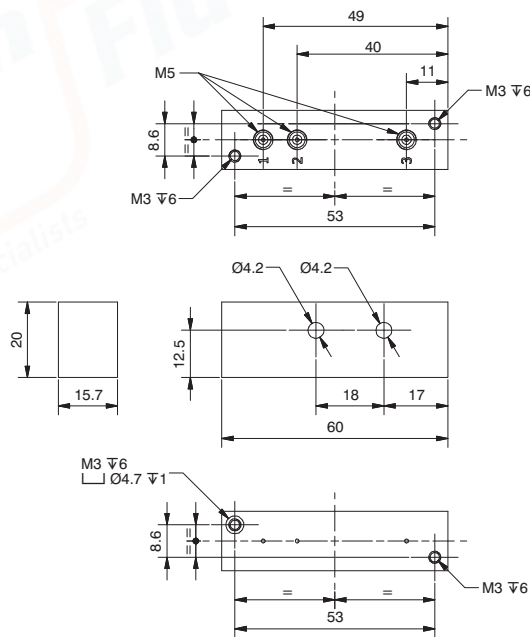
► Proportional Pressure Regulator c/w M5 Bottom Entry Base



Ordering code	
<b>170E<sup>P</sup>M.V.M.G.FV</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

► M5 Bottom Entry Single Base

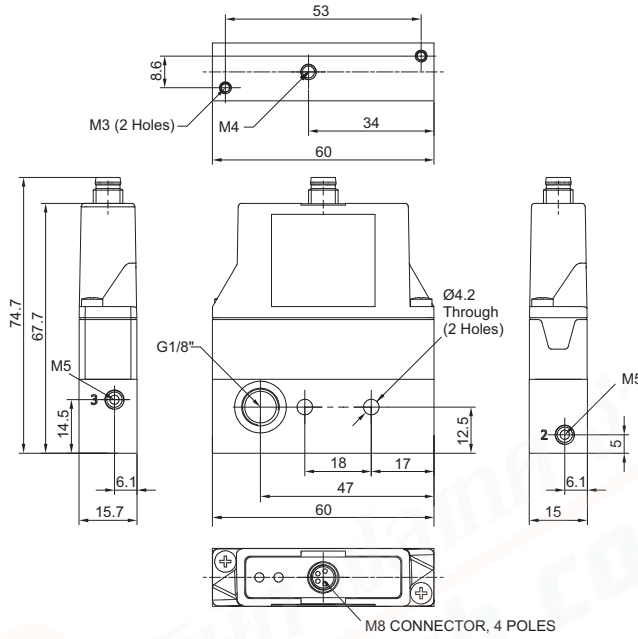


Ordering code	
<b>170M1.FV</b>	

Weight: 50 g



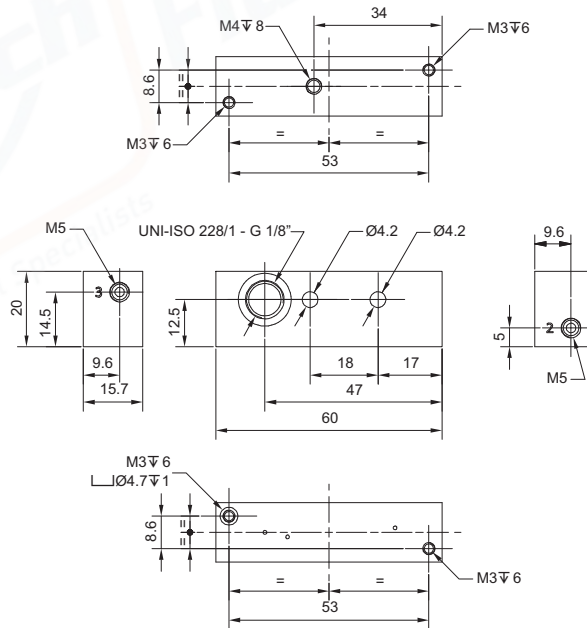
Proportional Pressure Regulator c/w Modular In-Line Base



Ordering code	
<b>170EPM.V.M.G.FP</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

Single Modular In-Line Base

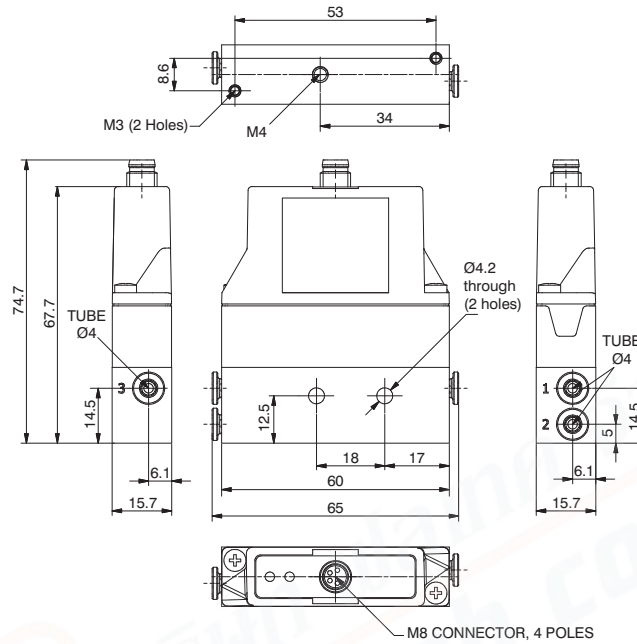


Ordering code	
<b>170M1.FP</b>	

Weight: 50 g



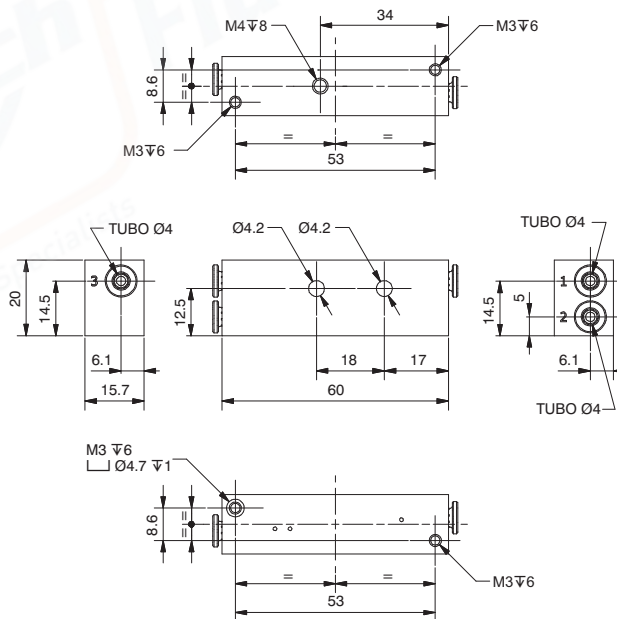
Proportional Pressure Regulator c/w 4mm In-Line Single base



Ordering code	
<b>170E M.V.M.G.TO</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

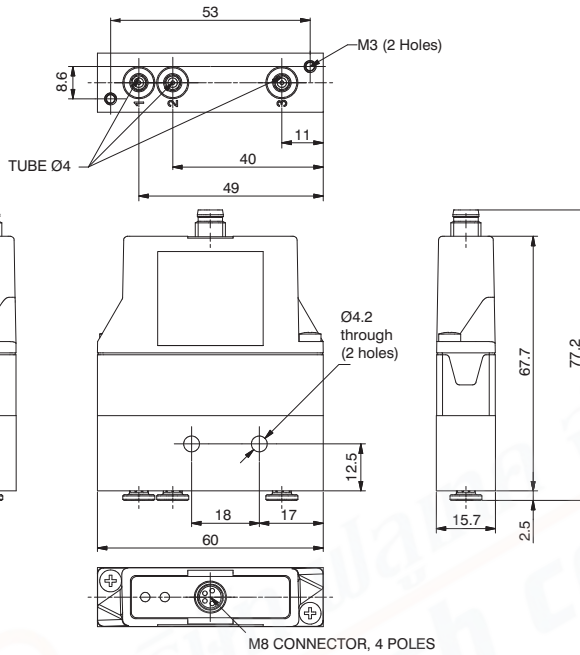
Single 4mm In-Line Base



Ordering code	
<b>170M1.TO</b>	

Weight: 50 g

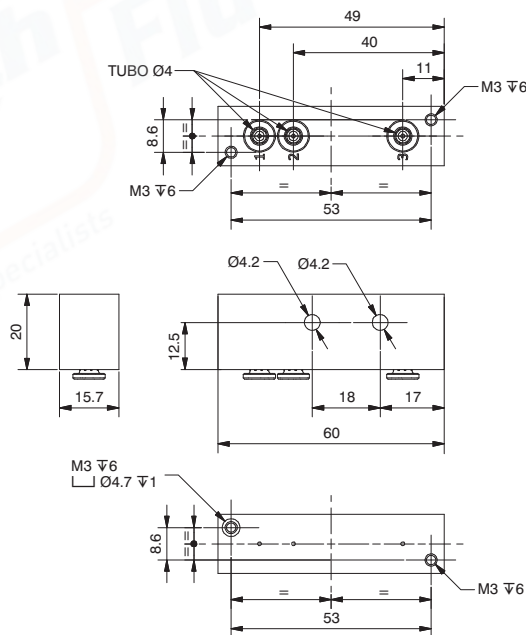




Ordering code	
<b>170EPM.V.M.⊙.TV</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>⊙</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

Single 4mm Bottom Entry Base



Ordering code	
<b>170M1.TV</b>	

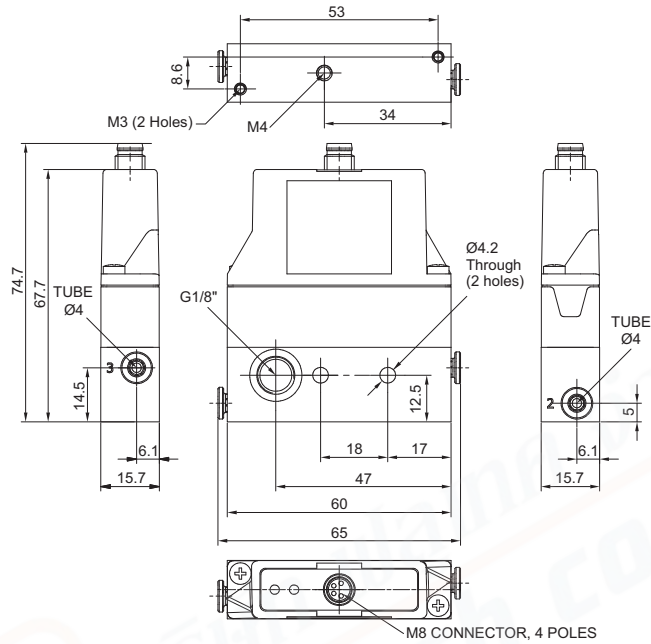
Weight: 50 g

AIR SERVICE UNITS

2



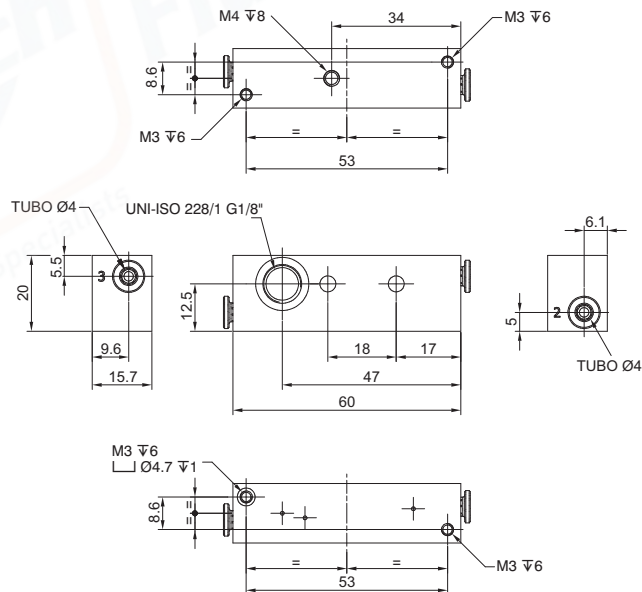
► Proportional Pressure Regulator c/w 4mm In-Line Modular Base



Ordering code	
<b>170EPM.V.M.C.TP</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>C</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

► Single 4mm In-Line Modular Base



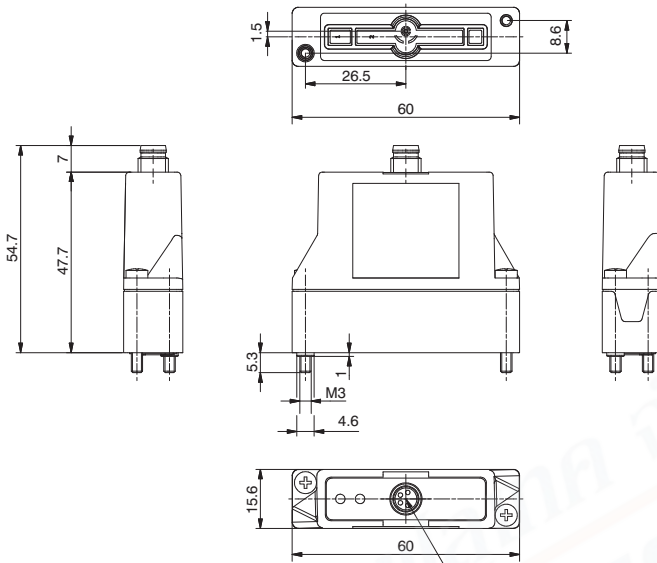
Ordering code	
<b>170M1.TP</b>	

Weight: 50 g

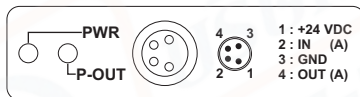
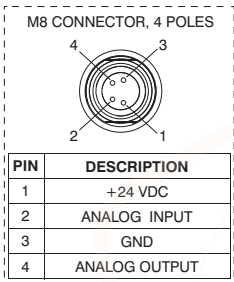




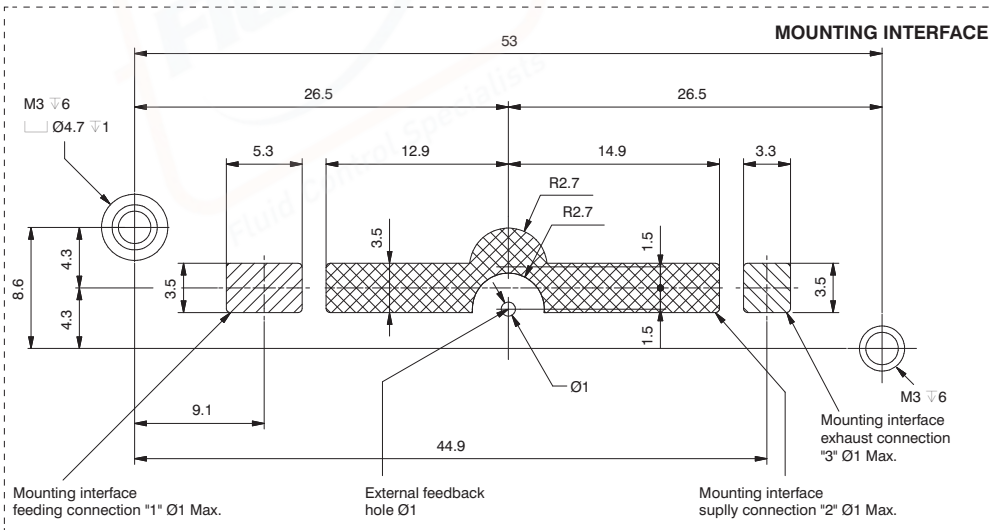
Proportional pressure regulator with external feedback



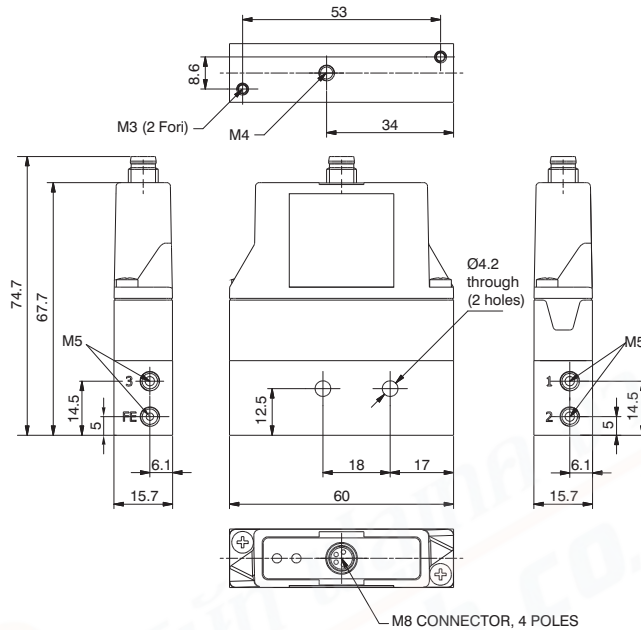
Ordering code	
<b>170EPM.0.M.0.E</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar



<b>PWR</b>	Green Led: The regulator is properly powered
<b>P-OUT</b>	Green Led: lights up when the outlet pressure is higher than the desired pressure minus 0.2 bar and less than the desired pressure more 0.2 bar



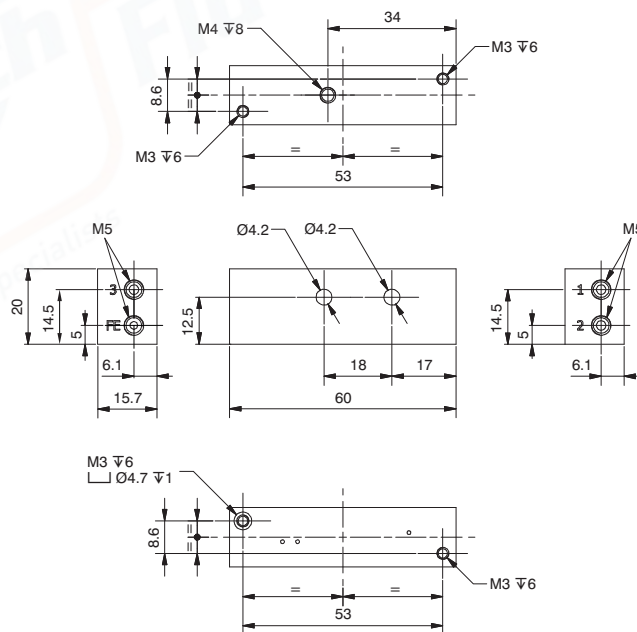
Proportional Pressure Regulator c/w M5 In-Line Single Base with External Feedback



Ordering code	
<b>170EPM.V.M.G.EFO</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

Single M5 In-Line Base with External Feedback

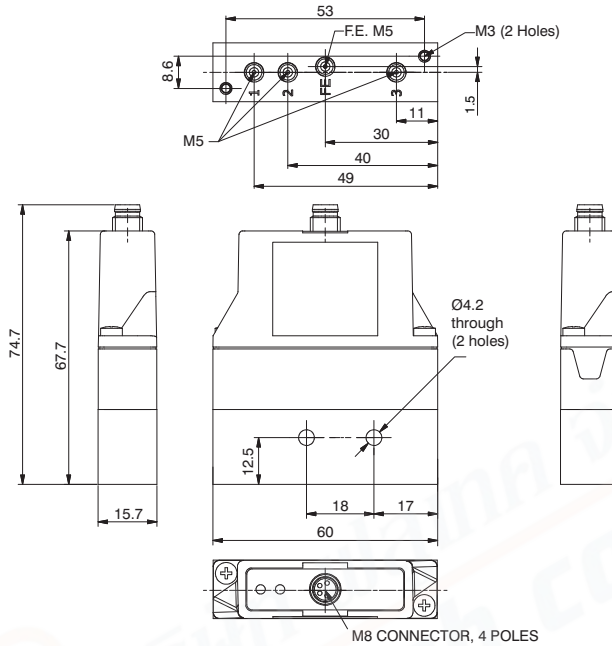


Ordering code	
<b>170M1.EFO</b>	

Weight: 50 g

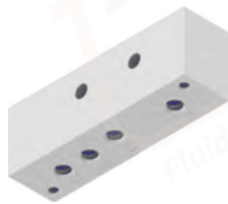


Proportional Pressure Regulator c/w M5 Bottom Entry Base with External Feedback

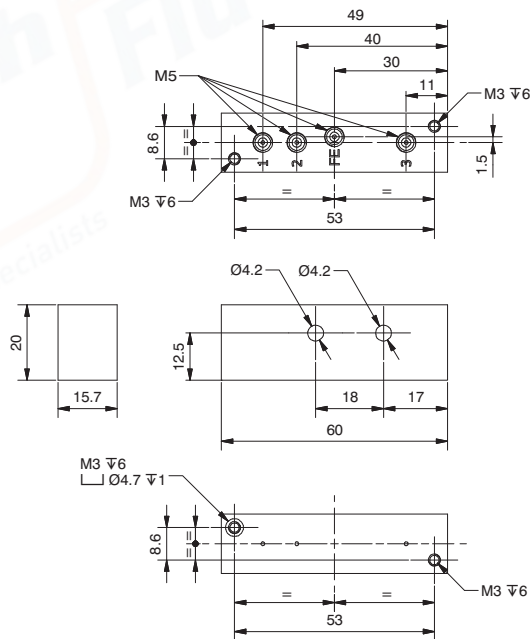


Ordering code	
<b>1700EM.V.M.G.EFV</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g



Single M5 Bottom Entry Base with External Feedback



Ordering code	
<b>170M1.EFV</b>	

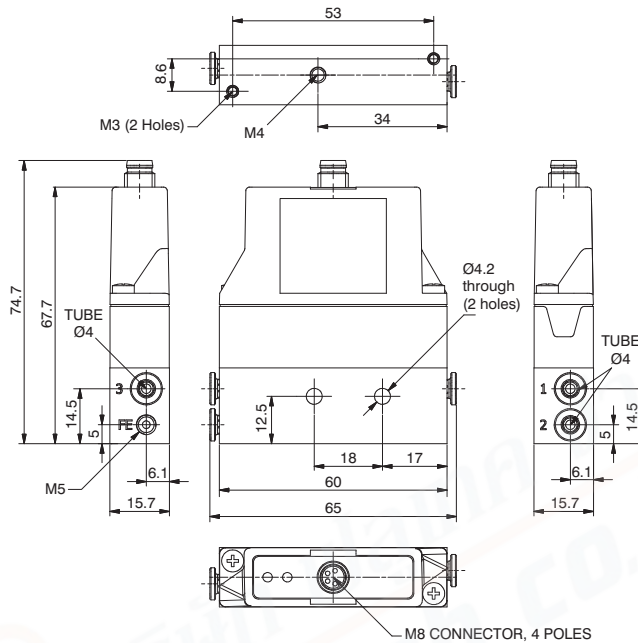
Weight: 50 g

AIR SERVICE UNITS

2



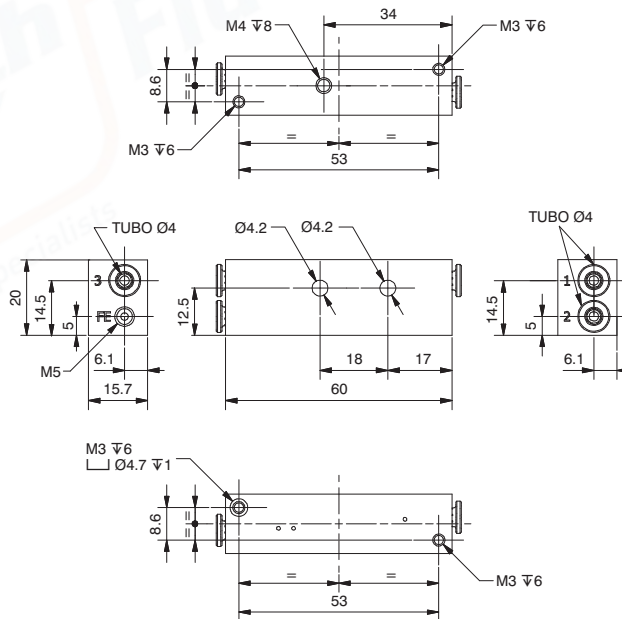
► Proportional Pressure Regulator c/w 4mm In-Line Single Base with External Feedback



Ordering code	
<b>170EPM.V.M.⊙.ETO</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>⊙</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Weight: 110 g

► Single 4mm In-Line Base with External Feedback

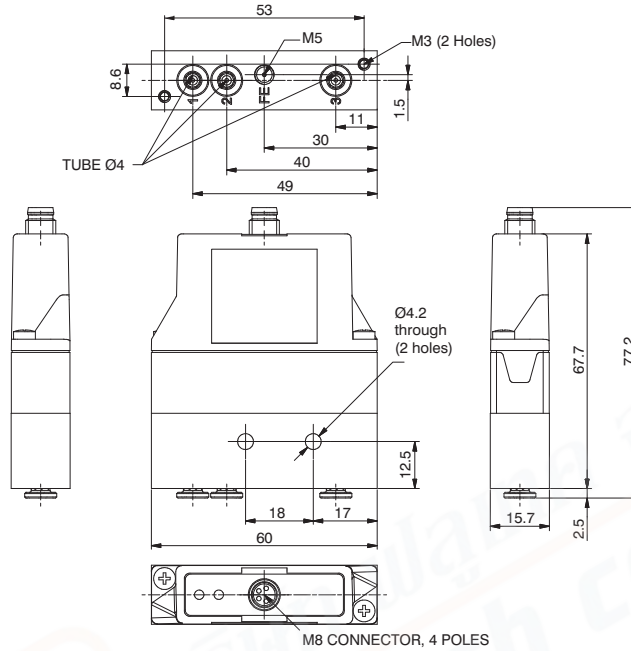


Ordering code	
<b>170M1.ETO</b>	

Weight: 50 g



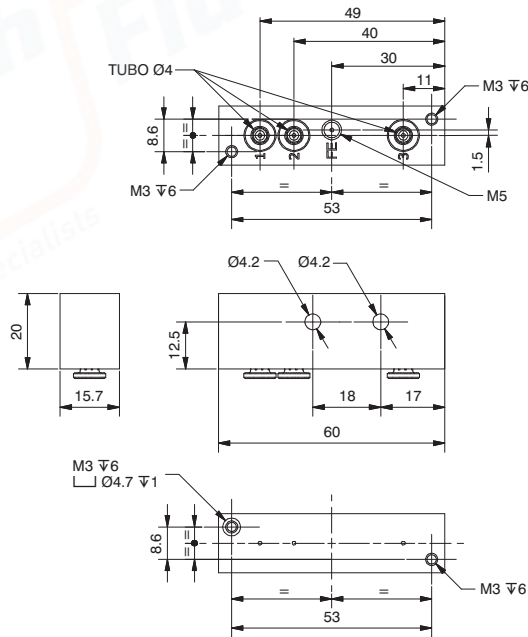
Proportional Pressure Regulator c/w 4mm Bottom Entry Single Base with External Feedback



Weight: 110 g

Ordering code	
<b>170EM.V.M.G.ETV</b>	
PROTECTION	
<b>P</b>	0 = Parameter 18 active
	2 = Parameter 18 not active
VERSION	
<b>V</b>	T = Voltage signal
	C = Current signal
PRESSURE RANGE	
<b>G</b>	001 = Range 0 - 1 bar
	005 = Range 0 - 5 bar
	009 = Range 0 - 9 bar

Single 4mm Bottom Entry Base with External Feedback



Weight: 50 g

Ordering code
<b>170M1.ETV</b>



### Coding For Proportional Pressure Regulator Modular Manifold

It is possible to assemble a manifold of Miniature Proportional Regulators to a maximum of 12 Regulators.

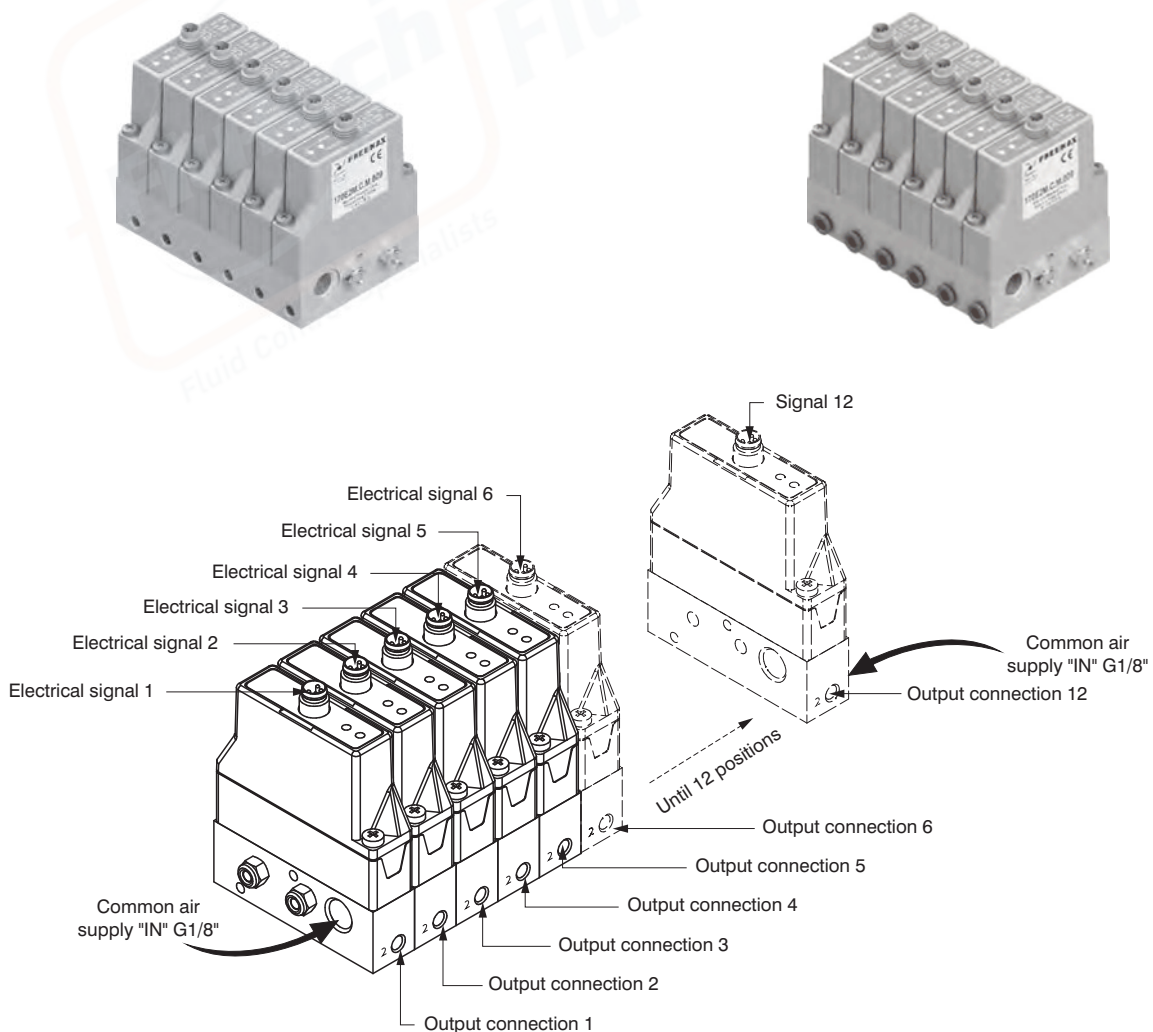
For the coding of the Manifold, refer to the configuration Table below.

The Regulators are fed by a single supply pressure via the G1/8" connection. In the Manifold, the Pressure Regulators operate independently, the output pressure is supplied via the M5 or 4mm output connection depending on the model requested. The electrical signal is controlled via the M8 connector.

There are also configured single bases up to a maximum of 12 positions with power supplies and independent consumptions (See following pages).

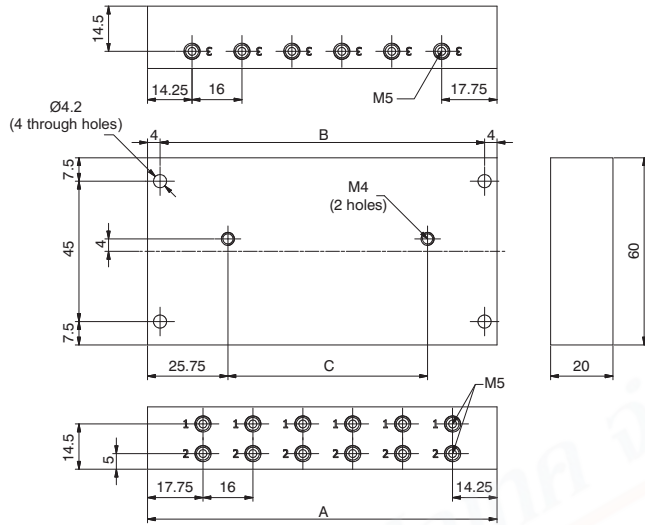
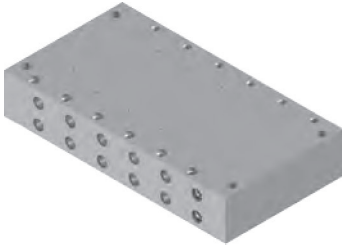
G	1	7	0	-	-	-	M	-	-	-	P	-
Group	Series	Size	Parameter 18	N. Places	Control Type	Electrical connection	Pressure range	Connection	Version	Options		
			0=Eco P18 On	A=02	T=Voltage		001=0 - 1 bar	T=Tube Ø4		= Standard *		
			2=Eco P18 Off	B=03	C=Current		005=0 - 5 bar	F=M5 Thread		E= External feedback		
				C=04			009=0 - 9 bar			* no additional letter required		
				D=05								
				E=06								
				F=07								
				G=08								
				H=09								
				I=10								
				L=11								
				M=12								

Example	
Code	G1700ITM009FP
Description	10 Position Miniature Proportional Pressure Regulator, Voltage controlled with M5 Outputs





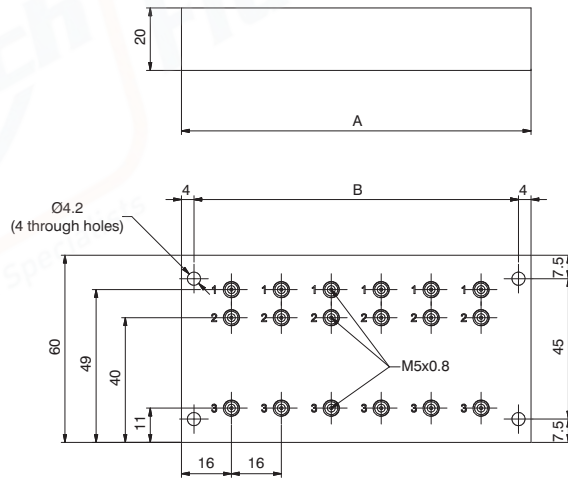
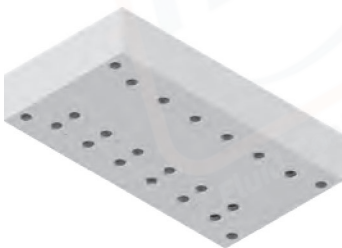
Multiple M5 In-Line Base



Ordering code
<b>170M<math>\varnothing</math>.FO</b>
N. PLACES
2=2 places (weight gr.100)
3=3 places (weight gr.150)
4=4 places (weight gr.200)
5=5 places (weight gr.250)
6=6 places (weight gr.300)
7=7 places (weight gr.350)
8=8 places (weight gr.400)
9=9 places (weight gr.450)
10=10 places (weight gr. 500)

N° PLACES									
DIMEN.	2 PLA.	3 PLA.	4 PLA.	5 PLA.	6 PLA.	7 PLA.	8 PLA.	9 PLA.	10 PLA.
A	48	64	80	96	112	128	144	160	176
B	40	56	72	88	104	120	136	152	168
C	0	16	32	48	64	80	96	112	128

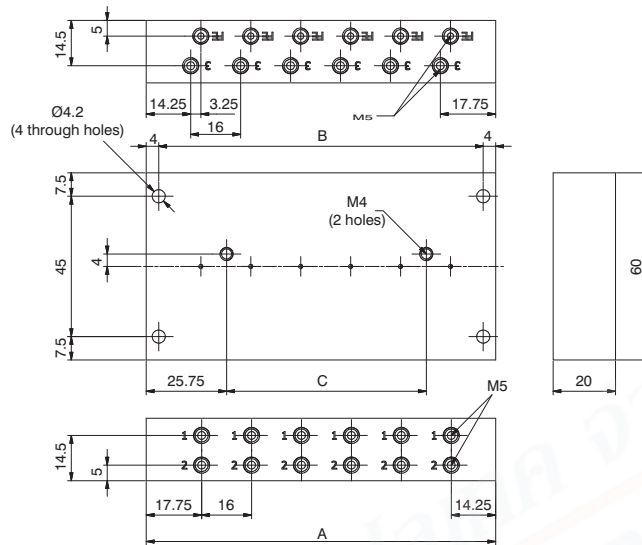
Multiple M5 Bottom Entry Base



Ordering code
<b>170M<math>\varnothing</math>.FV</b>
N. PLACES
2=2 places (weight gr.100)
3=3 places (weight gr.150)
4=4 places (weight gr.200)
5=5 places (weight gr.250)
6=6 places (weight gr.300)
7=7 places (weight gr.350)
8=8 places (weight gr.400)
9=9 places (weight gr.450)
10=10 places (weight gr. 500)

N° PLACES									
DIMEN.	2 PLA.	3 PLA.	4 PLA.	5 PLA.	6 PLA.	7 PLA.	8 PLA.	9 PLA.	10 PLA.
A	48	64	80	96	112	128	144	160	176
B	40	56	72	88	104	120	136	152	168

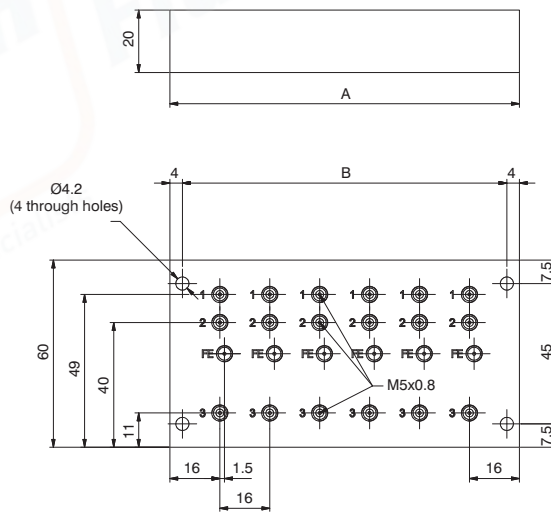
Multiple M5 In-Line Base with External Feedback



DIMEN.	N° PLACES									
	2 PLA.	3 PLA.	4 PLA.	5 PLA.	6 PLA.	7 PLA.	8 PLA.	9 PLA.	10 PLA.	
A	48	64	80	96	112	128	144	160	176	
B	40	56	72	88	104	120	136	152	168	
C	0	16	32	48	64	80	96	112	128	

Ordering code	
<b>170M<sup>N</sup>.EFO</b>	
N. PLACES	
2=2 places (weight gr.100)	
3=3 places (weight gr.150)	
4=4 places (weight gr.200)	
5=5 places (weight gr.250)	
6=6 places (weight gr.300)	
7=7 places (weight gr.350)	
8=8 places (weight gr.400)	
9=9 places (weight gr.450)	
10=10 places (weight gr. 500)	

Multiple M5 Bottom Entry Base with External Feedback



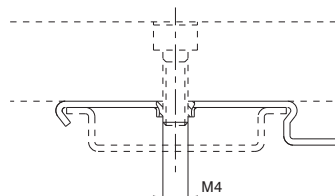
DIMEN.	N° PLACES									
	2 PLA.	3 PLA.	4 PLA.	5 PLA.	6 PLA.	7 PLA.	8 PLA.	9 PLA.	10 PLA.	
A	48	64	80	96	112	128	144	160	176	
B	40	56	72	88	104	120	136	152	168	

Ordering code	
<b>170M<sup>N</sup>.EFV</b>	
N. PLACES	
2=2 places (weight gr.100)	
3=3 places (weight gr.150)	
4=4 places (weight gr.200)	
5=5 places (weight gr.250)	
6=6 places (weight gr.300)	
7=7 places (weight gr.350)	
8=8 places (weight gr.400)	
9=9 places (weight gr.450)	
10=10 places (weight gr. 500)	

Clip



Weight g 5



Ordering code	
<b>800.00</b>	