

# VALVES SERIES 70, MECHANICALLY OPERATED, 1/8" NPT

## TECHNICAL DATA

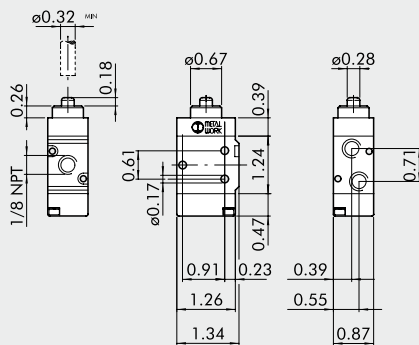
Thread at valve ports		1/8" NPT
Operation force at 87 psi:		
• version with direct control	lbf	11.2
• pilot-assisted version	lbf	1.35
Operating pressure:		
• version with direct control	psi	Vacuum to 145
• pilot-assisted version	psi	36.3 to 145
Operating temperature range	°F	14 to + 140
Nominal diameter	in	0.20
Conductance C	scfm/psi	0.30
Critical ratio b	psi/psi	0.32
Flow rate at 87 psi ΔP 7.25 psi	scfm	14
Flow rate at 87 psi ΔP 14.5 psi	scfm	19.5 Cv 5.5



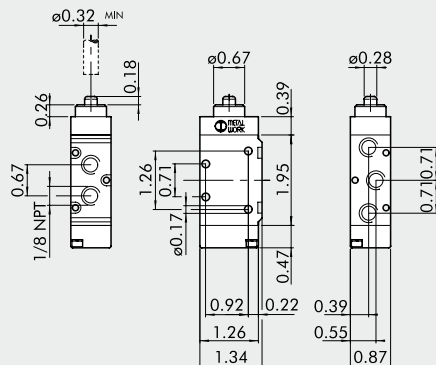
## KEY TO CODES

MEV	2	3	T A	S	NC	U
FAMILY	DIMENSIONS	FUNCTION	OPERATORS 14	RESETTING (12)	FURTHER DETAILS	THREAD
MEV mechanically-operated valves	2 1/8"	3 3/2 5 5/2	TA plunger BR bidirectional roller UR unidirectional roller TS sensitive plunger RS sensitive roller AS sensitive aerial LL frontal roller lever	S mechanical springs A pneumatic/mechanical spring*  *on demand	NC normally closed OO 5/2	U NPT

### PLUNGER 3/2, 1/8" NPT



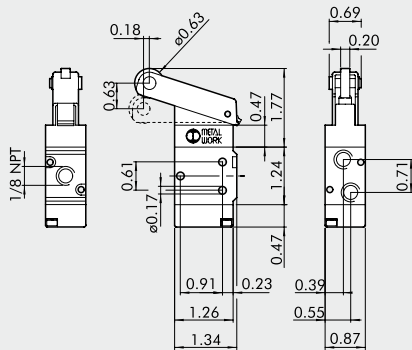
### PLUNGER 5/2, 1/8" NPT



Symbol	Code	Abbrev.	Weight [lb]
	7001000100U	MEV 23 TAS NC U	0.194

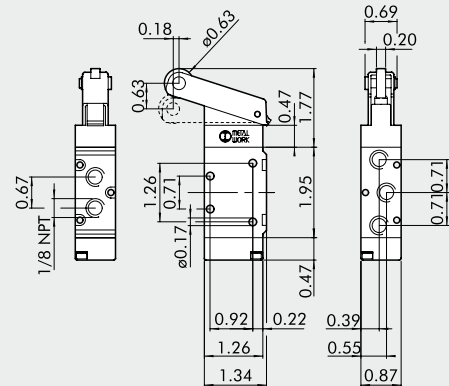
Symbol	Code	Abbrev.	Weight [lb]
	7001000110U	MEV 25 TAS OO U	0.251

### ROLLER LEVER 3/2, 1/8" NPT



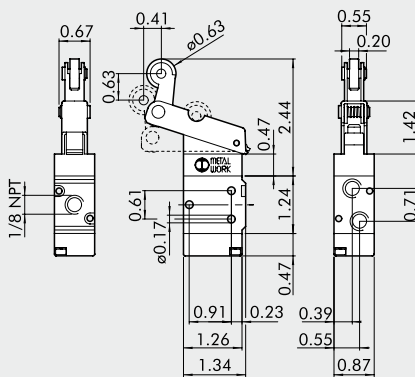
Symbol	Code	Abbrev.	Weight [lb]
	7001000500U	MEV 23 BRS NC U	0.287

### ROLLER LEVER 5/2, 1/8" NPT



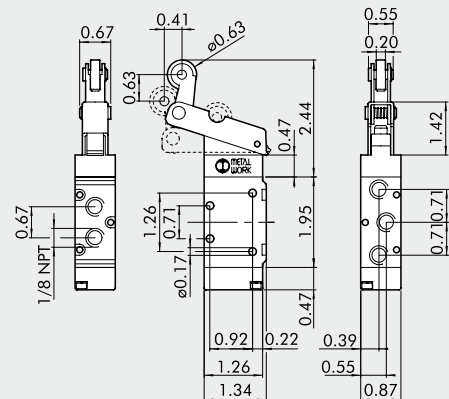
Symbol	Code	Abbrev.	Weight [lb]
	7001000510U	MEV 25 BRS OO U	0.344

### UNIDIRECTIONAL ROLLER 3/2, 1/8" NPT LEVERS



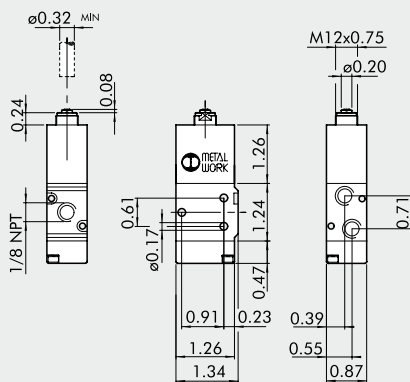
Symbol	Code	Abbrev.	Weight [lb]
	7001000600U	MEV 23 URS NC U	0.300

### UNIDIRECTIONAL ROLLER 5/2, 1/8" NPT LEVERS



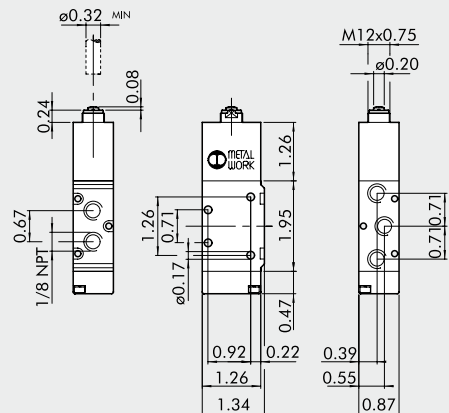
Symbol	Code	Abbrev.	Weight [lb]
	7001000610U	MEV 25 URS OO U	0.357

### PILOT-ASSISTED PLUNGER 3/2 NC, 1/8" NPT



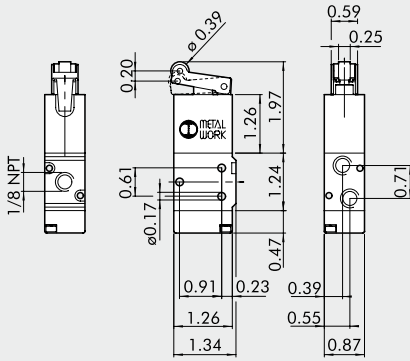
Symbol	Code	Abbrev.	Weight [lb]
	7001000200U	MEV 23 TSS NC U	0.278

### PILOT-ASSISTED PLUNGER 5/2, 1/8" NPT



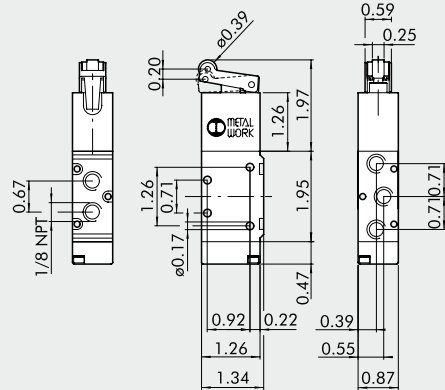
Symbol	Code	Abbrev.	Weight [lb]
	7001000210U	MEV 25 TSS OO U	0.335

PILOT-ASSISTED ROLLER LEVER 3/2 NC, 1/8" NPT



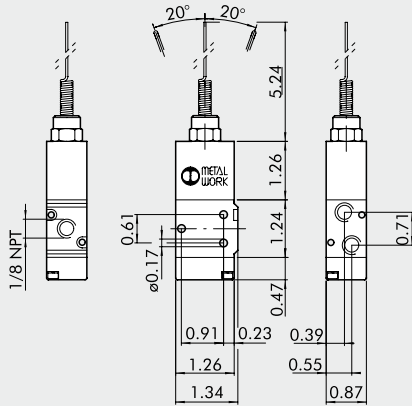
Symbol	Code	Abbrev.	Weight [lb]
	7001000400U	MEV 23 RSS NC U	0.304

PILOT-ASSISTED ROLLER LEVER 5/2, 1/8" NPT



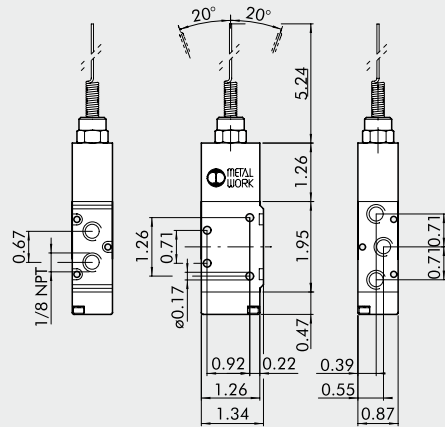
Symbol	Code	Abbrev.	Weight [lb]
	7001000410U	MEV 25 RSS OO U	0.362

PILOT-ASSISTED AERIAL 3/2 NC, 1/8" NPT



Symbol	Code	Abbrev.	Weight [lb]
	7001000700U	MEV 23 ASS NC U	0.278

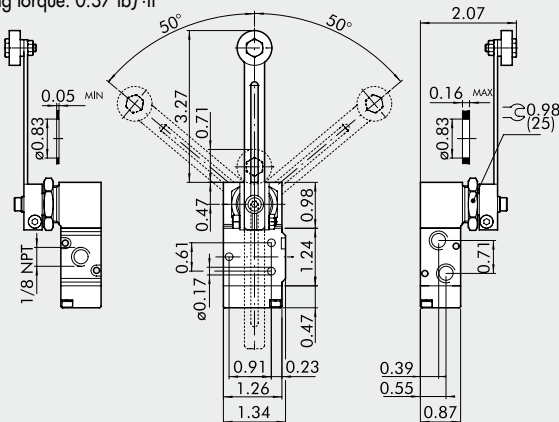
PILOT-ASSISTED AERIAL 5/2 NC, 1/8" NPT



Symbol	Code	Abbrev.	Weight [lb]
	7001000710U	MEV 25 ASS OO U	0.370

ROLLER-LEVER 3/2 1/8" NPT

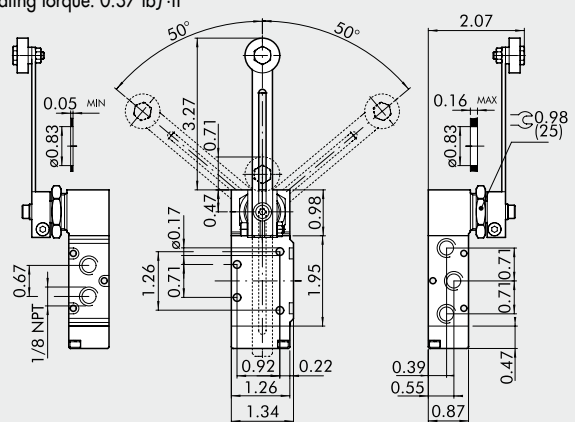
Operating torque: 0.37 lbf-ft



Symbol	Code	Abbrev.	Weight [lb]
	7001000900U	MEV 23 LLS NC U	0.417

ROLLER-LEVER 5/2 1/8" NPT

Operating torque: 0.37 lbf-ft



Symbol	Code	Abbrev.	Weight [lb]
	7001000910U	MEV 25 LLS OO U	0.476

# VALVES SERIES 70

This is Metal Work's full range. Available in three sizes: 1/8", 1/4", 3/8", 1/2". Three versions: 3/2; 5/2; 5/3, four different types of actuation (mechanical, manual, pneumatic and electric).

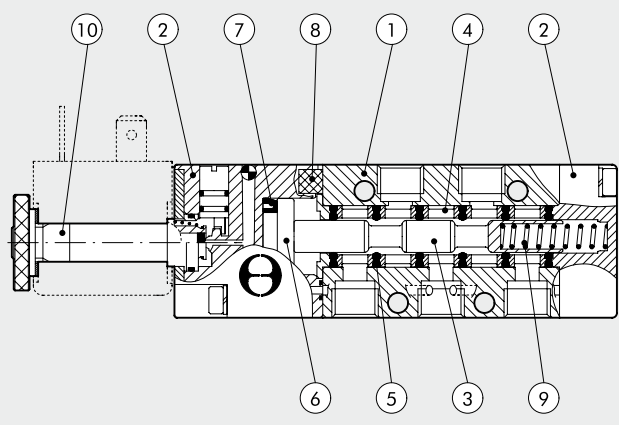
Series 70 valves can be used for a wide range of applications as they can be mounted in line, on the wall, on the cylinder using a special bracket, or in series on a multiple or manifold base.



TECHNICAL DATA	1/8" NPT	1/4" NPT	3/8" NPT	1/2" NPT	
Thread on the valve ports	1/8" NPT	1/4" NPT	3/8" NPT	1/2" NPT	
Operating pressure:					
• monostable			36.3 to 145		
• bistable			14.5 to 145		
• asserved			vacuum to 145		
Minimum pilot pressure			36.3		
Operating temperature range			14 to +140		
Nominal diameter	in	0.20	0.30	0.52	0.59
Conductance C	scfm/psi	0.30	0.65	1.23	2.37
Critical ratio b	psi/psi	0.32	0.27	0.32	0.43
Flow rate at 87 psi ΔP 7.25 psi	scfm	14	26.5	55.2	113
Flow rate at 87 psi ΔP 14.5 psi	scfm	19.5 Cv 0.55	39 Cv 1.1	75 Cv 2.1	163 Cv 4.6
Installation	In any position (vertical assembly is not recommended for bistable valves subjected to vibration)				
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous				
Recommended lubricant	ISO and UNI FD 22				
Maximum coil nut torque	lbf ft	0.74			
Compatibility with oils	Please refer to page 5-4 of the technical documentation				

## COMPONENTS

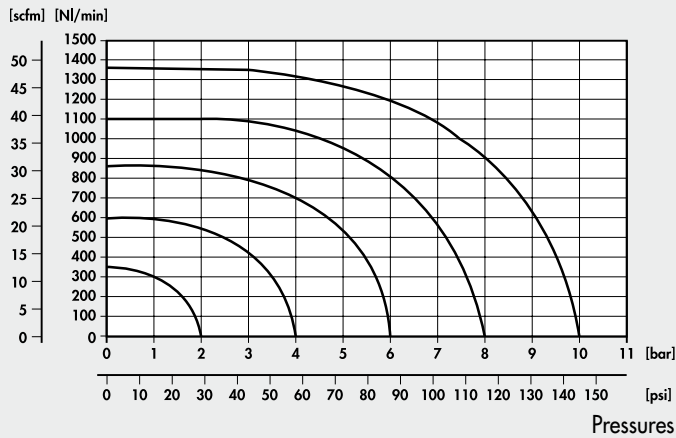
- ① VALVE BODY: Aluminium
- ② CONTROL/END CAP: plastic
- ③ SPOOL: chemically nickel-plated aluminium
- ④ DISTANCE PLATES: plastic
- ⑤ GASKETS: NBR
- ⑥ PISTONS: Hostaform®
- ⑦ PISTON GASKET: NBR
- ⑧ FILTER: sintered bronze
- ⑨ SPRINGS: special steel
- ⑩ OPERATOR: Brass pipe - Stainless steel core



## FLOW CHARTS

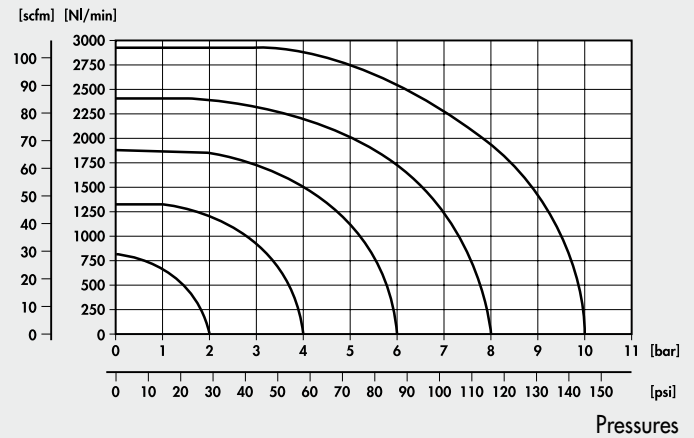
### VALVES SERIES 70, 1/8"

Flow rates



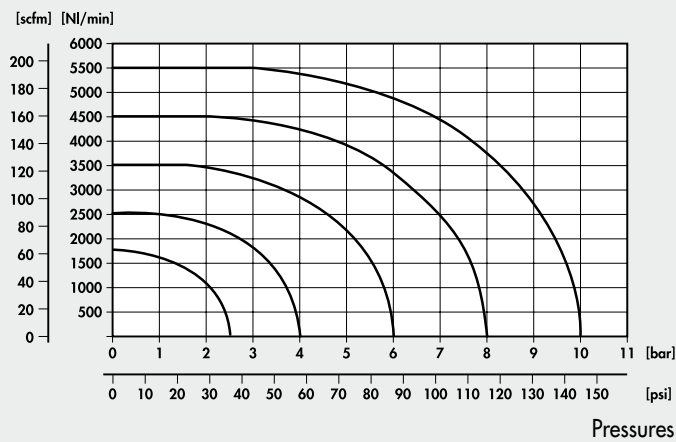
### VALVES SERIES 70, 1/4"

Flow rates



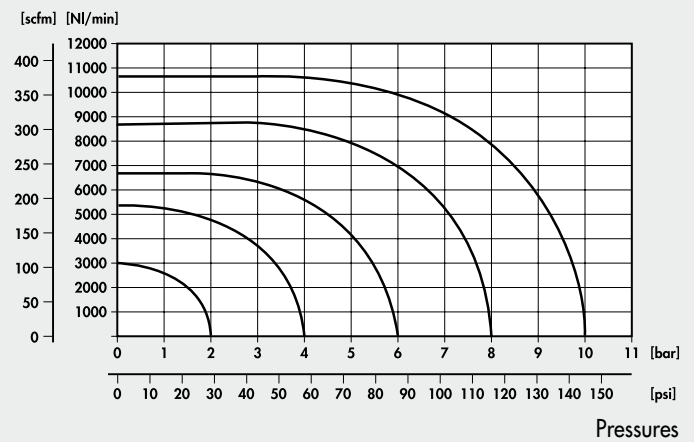
### VALVES SERIES 70, 3/8"

Flow rates



### VALVES SERIES 70, 1/2"

Flow rates



## NOTES

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