



# Electro-Pneumatic Control Valve for Steam

CV-COS  
CV-COSR

**An Innovative Control Valve for  
Improving Steam Quality**

# Control Valve



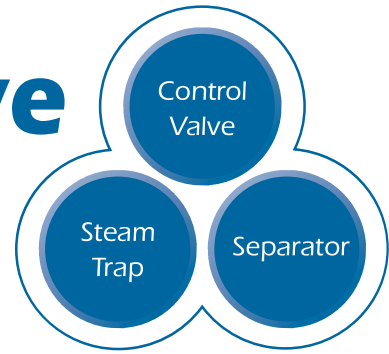
# Steam Trap



# Separator

CV-COS

# 3-in-1 Control Valve



CV-COS is a new type of compact electro-pneumatic control valve with an integrated cyclone separator and steam trap to improve steam quality.

## Actuator / Positioner



### Compact and Simple

Actuator with digital I/P positioner saves space and simplifies system layout, piping, and maintenance. Zero/span adjustment can be performed by auto-tuning via the positioner menu.

## Steam Trap



### Prevents Water Hammer by Eliminating Condensate

Self-modulating free float steam trap continuously discharges condensate as it is separated.

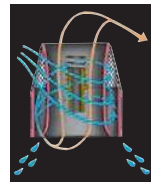
Usable with pressure/temperature sensors, flowmeters, and controllers.



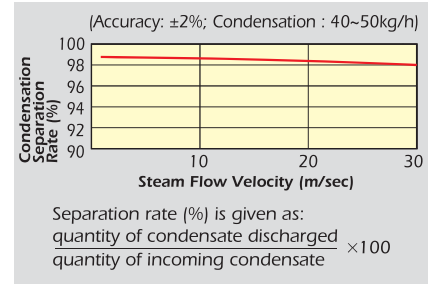
## Cyclone Separator

### Supplies Dry Steam and Prevents Scale Adhesion / Valve Erosion

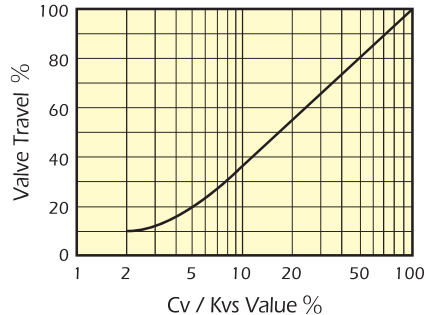
Built-in cyclone separator eliminates condensate, achieving separation efficiency as high as 98%. Built-in screen with large surface area prevents scale adhesion, ensuring trouble-free operation.



### Flow Velocity and Efficiency



### Equal Percentage



## Cv & Kvs Values

DN	15	20	25	40	50
Kvs (DIN)	3.0	5.1	7.7	23	34
CV (UK)	2.9	5.0	7.5	23	33
CV (US)	3.5	6.0	9.0	27	40
Seat Diameter (mm)	12	24	38	48	

**CV-COSR** Control Valve

Like the CV-COS, the CV-COSR\* is an electro-pneumatic control valve with a great price to performance value, ideal for applications where dry steam is already being supplied through use of a separator, etc.

\* Does not include separator or steam trap functions.

Specifications	Model	DN	Connection (Flange)	Material	Max. Operating Press. PMO	Max. Operating Temp. TMO	Valve Characteristic	Rangeability	Fail-Safe Position
CV-COS CV-COSR	15,20,25,40,50		ASME	Cast Iron	13 barg (DN 15 - 40) 10 barg (DN 50)	200°C	Equal Percentage	50 : 1	Valve CLOSED
			DIN	Ductile Cast Iron Stainless Steel	16 barg (DN 15 - 40) 10 barg (DN 50)	220°C			

Note: Use only oil free air filtered to 5 µm for motive air supply. Pressure gauge shown in product images is optional.

**CAUTION** To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside the specification range. Local regulations may restrict this product below the conditions quoted.

**TLV EURO ENGINEERING UK LTD.**  
 Star Lodge, Montpellier Drive, Cheltenham, Gloucestershire, GL50 1TY, U.K.  
 Tel: [44]-(0)1242-227223 Fax: [44]-(0)1242-223077  
<http://www.tlv.com>

Manufacturer  
**TLV CO., LTD.**  
 Kakogawa, Japan  
 is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001  
 ISO 14001