

# **Product Overview**

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Valve Communication Systems for Integrated Control

The process industries are being subjected to dramatic changes primarily through the increasing diffusion of field communication into integrated control systems (e.g. fieldbus). These control systems require suitable interfaces for the field equipment and final control elements (i.e. control valves).

Imtex is a manufacturing company established in 1990 specialising in the supply of advanced valve monitoring and communication systems. Using many years of field application experience within the area of valve control, we are committed to the design, manufacture and supply of technically advanced solutions to ensure that customers are supplied with the best automated valve product to suit their specific requirements.





## **Our Products**

## type AQ

Epoxy Coated Anodised Aluminium or CF8M (316) Stainless Steel Valve Position Monitor Certified ATEX II 2 G / Ex ia IIC T4/6 for zone 0, 1 & 2 suitable for hazardous locations typically found in the offshore and onshore process industries. The IP67 enclosure has a screw-on cover and is supplied with a high visibility open / close position indicator all designed to minimise the total size of the automated valve package

#### Non-hazardous

14,16,17,25,40,42,43,52,53,55,56,58,59, 70,92,93,94,95,96,97

#### Hazardous

17,40,42,43,52,53,56,59,70 Ex ia IIC T4/5/6



## type **DQ**

CF8M (316) Stainless Steel Valve Position Monitor dual Certified ATEX / IECEx II 2 GD / Ex emb IIC T4/6 suitable for zone 1 & 2 hazardous locations typically found in the offshore and onshore process industries. The IP67 enclosure has a screw-on cover and is supplied with a high visibility open / close position indicator all designed to minimise the total size of the automated valve package.

#### Hazardous

25,58 Ex emb IIC T4/6



## type IQ

CF8M (316) Stainless Steel Valve Position Monitor dual Certified ATEX / IECEx II 2 GD / Ex d IIC T6 suitable for zone 1 & 2 hazardous locations and extreme service environments typically found in the offshore, petrochemical and chemical industries. The IP67 enclosure has a screw-on cover and is supplied with a high visibility open / close position indicator all designed to minimise the total size of the automated valve package.

#### Hazardous

14,16,17,25,40,42,43,52,53,55,56,58,59, 70,92,93,94,95,96,97 Ex d IIC T4/6



#### type SLR

Polycarbonate Valve Position Monitor available in non-hazardous and ATEX Ex ia versions providing a competitive and technically viable solution to the general and process industries. The IP67 enclosure design comes with a unique quick access lockable cover allowing for reduced installation costs and space requirements whilst ensuring rugged reliability in the most testing environments.

#### Non-hazardous

14,16,17,25,40,42,43,92,93,94,95,96,97

Hazardous 17.40.42.43 EEx ia IIB T6



#### type SRA

Epoxy Coated Anodised Aluminium Valve Position Monitor dual Certified ATEX / IECEx II 2 GD / Ex d IIB+H2 T4/6 providing a system suited for zone 1 & 2 hazardous area locations typically found in the onshore process industries. The IP66 enclosure has a bolt-on cover and top mounted high visibility open / close position indicator. Hazardous

14,16,17,25,40,42,43,52,53,55,56,58,59,70

Ex d IIB+H2 T4/6

#### type SQ

Epoxy Coated Anodised Aluminium Valve Position Monitor Certified ATEX II 2 G / Ex d IIC T5 and provides a system suitable for zone 1 & 2 hazardous area locations typically found in the onshore process industries. The IP67 enclosure has a screw-on cover and is supplied with a high visibility open / close position indicator all designed to minimise the total size of the automated valve package.

Hazardous

16,17,25,40,42,55,70,96 Ex d IIC T5



Imtex products are designed to be safe, easy to install, use, maintain and environmentally friendly. Products comply with the applicable sections of the most demanding international electrical standards (e.g. ATEX) and to the requirements of the latest European Directives in terms of safety and the environment.

Imtex engineers are available at all times to provide technical support to customers. By request, our sales office will be pleased to supply full documentation, drawings and wiring diagrams and support site personnel who may require assistance on installation or operation of any products offered.





#### type SRX

Hazardous

Ex ia IIC T4/5/6

CF8M (316) Stainless Steel Valve Position Monitor available with dual Certified ATEX / IECEx II 2 G / Ex ia IIC T4/6 or II 2 GD / Ex d IIB T4/6 variants providing a high integrity system with protection from corrosive or environmental attack typically found offshore and in onshore process plants. The IP66 enclosure has a bolt-on cover and top mounted high visibility open / close position indicator, ideally suited for hazardous area locations. For Ex ia applications only, Epoxy Coated Anodised Aluminium version also available



### type VSD

CF8M (316) or CF3M (316L) Stainless Steel Valve Controller dual Certified ATEX / IECEX II 2 GD / Ex d (ib) IIC T6 suitable for zone 1 & 2 hazardous locations is an integrated valve information device for emergency shutdown (ESD) valves. Combining valve position monitoring and partial stroke test (PST) functionality, the type VSD unit is an information hub for the ESD valve, enabling plant operators to verify the capabilities of the most critical valves in their installations without having to significantly modify existing operating methodologies.

#### Hazardous

01,14,16,17,25,40,42,43,70 Ex d (ib) IIC T4/6

# Ex d IIB T6

17,40,42,43,52,53,56,59,70



## **Bus Communication**

14.16.17.25.40.42.43.52.53.55.56.58.59.70

Using either an electronic communication board or VCT Dual Module which integrates solid state position sensing, communication electronics, power outputs, auxiliary inputs and wire termination into a single compact package, all mechanical platforms listed can be connected on a bus communication network. Systems can be supplied to operate with the most popular bus protocols providing significant cost savings for installation and maintenance downtime when compared with conventional analogue systems.

01,70,92,93,94,95,96,97 Hazardous

70

Ex ia IIC T4/5/6 01,70,92,93,94,95,96,97

Ex d IIB or IIC T4/5/6

		Fieldbus	Profu <sup>°</sup>	Modbus®	DeviceNet.	
type <b>AQ</b>	• (70)	(70, 93*, 94*)	• (70)	• (95*)	• (92*)	<ul><li>(96*, 97*)</li></ul>
type IQ	• (70)	• (70, 93, 94)	• (70)	• (95)	• (92)	• (96, 97)
type SQ	-	14/3//18	-	7-19-19-	-	• (96)
type SRA	• (70)	1414489	-	1.13333	-	1444
type SLR	-	<ul> <li>(93*, 94*)</li> </ul>	-	• (95*)	• (92*)	<ul> <li>(96*, 97*)</li> </ul>
type SRX	• (70)	1.1.1.1.2	-		-	141414
type VSD	• (01, 70)	• (01)	-	• (01)	-	944444

Bus protocol available. \* Non-hazardous.

#### Electrical Functions - Standard Options\*\*

Base Unit

01	No Feedback	
Mechanical Sw	vitch	
14 (2)	DPDT	4.5 Amps @ 125 / 250 VAC
16 (2) / 55 (4)	V3 SPDT	10 Amps @ 125 / 250 VAC, 0.5 Amps @ 125 VDC
17 (2) / 56 (4)	V3 SPDT Gold Plated Contacts	1 Amp @ 125 / 250 VAC, 0.5 Amps @ 30 VDC

Reed Type Proximity Switch

25 (2) / 58 (4)	SPDT	Maxx-Guard Volts Max. 240 VAC, Current Max.3 Amps, Power Max.100 Watts / VA, Min.2 Watts
		MagProx Tungsten Contacts - Volts Max. 250 VAC, Current Max.3 Amps, Min.83mA @ 24 VDC, 8mA @ 250 VAC, Min.2 Watts
		MagProx Rhodium Contacts - Volts Max. 28 VDC / 230 VAC, Current Max.1 Amp, No Minimum
40 (2) / 59 (4)	SPST	Maxx-Guard 0.15 Amps @ 30 VDC
		MagProx 0.15 Amps @ 30 VDC

#### Inductive Proximity Sensor

42 (2) / 52 (4)	V3 2-Wire or 3-Wire	2-Wire Namur - Target On <1mA Target Off >3mA, Nominal Voltage 8 VDC		
		3-Wire PNP or NPN 100mA @ 60 VDC		
43 (2) / 53 (4)	Cylindrical or Slotted 2-Wire or 3-Wire	2-Wire Namur - Target On <1mA Target Off >3mA, Nominal Voltage 8 VDC		
		3-Wire PNP or NPN 100mA @ 60 VDC		

#### Position Transmitter

70 (1)	0% to 100% Continuous (4 to 20mA* or Digital) (*HART Enabled option available)	4 to 20mA Loop Powered (Resistive or Non-contact) Supply Voltage 8 to 28 VDC, Linearity Error <1% of Full Scale Digital Bus Powered Supply Voltage 9 to 32 VDC, Foundation Fieldbus or Profibus-PA		
Bus Communication				
92 (2)	DeviceNet Module	2 x Discrete Inputs, Open & Closed / 2 x Power Outputs (Solenoids), 24 VDC, 4 Watts / 1x 4 to 20mA Auxiliary Input		
93 (2)	Foundation Fieldbus Module	Bus Powered 2 x Discrete Inputs, Open & Closed / 2 x Discrete Outputs (Piezo), 2mA @ 6.5 VDC each		
94 (2)	Foundation Fieldbus Module	Externally Powered 2 x Discrete Inputs, Open & Closed / 2 x Discrete Outputs (Solenoids), 4 Watts Total Combined, Current Limited to 200mA		
95 (2)	Modbus Module	2 x Discrete Inputs, Open & Closed / 2 x Power Outputs (Solenoids), 10 to 24 VDC / 1x 4 to 20mA Auxiliary Input		
96 (2)	AS-Interface (31 Devices per Network)	2 x Sensor Inputs, Open & Closed / 2 x Power Outputs (Solenoids), 25 to 30 VDC, 4 Watts / 2 x Auxiliary Inputs		
97 (2)	AS-Interface (62 Devices per Network)	Extended Addressing 2 x Sensor Inputs, Open & Closed / 1 x Power Output (Solenoids), 25 to 30 VDC, 4 Watts / 2 x Auxiliary Inputs		

\*\*Note: Other Electrical Functions are Available 'On Request'!

### **Product Hazardous Certification**

Protection Concept	Monitor Type	Standard	Zones	Certificate Number	Marking	Electrical Functions	
Intrinsically Safe	AQ	EN60079-11	0, 1 & 2	Sira 10ATEX2060X	Ex ia IIC T4/5/6 / II 2 G	17,40,42,43,52,53,56,59,70	
	SLR	EN50020		DEMKO 04 ATEX 136983	EEx ia IIB T6 / II 2 G	17,40,42,43	
	SRX	EN60079-11		Sira 09ATEX2162X	Ex ia IIC T4/5/6 / II 2 G	17,40,42,43,52,53,56,59,70	
		IEC60079-11		IECEx SIR 09.0066X	Ex ia IIC T4/5/6 /II 2 G		
Flameproof	IQ	EN60079-1	1&2	0. 004751400014			
		EN61241-1	1	Sira 08ATEX1266X	EX d IIC 14/6 / II 2 GD	14,16,17,25,40,42,43,52,53,55, 56,58,59,70,92,93,94,95,96,97	
		IEC60079-1	1	IECEx SIR 08.0099X	Ex d IIC T4/6 / II 2 GD		
		IEC61241-1	1				
	SQ	EN60079-1	1	FM08ATEX0008X	Ex d IIC T5 / II 2 G	16,17,25,40,42,55,70,96	
	SRA	EN60079-1	-	TRAC12ATEX0050X	Ex d IIB+H T4/6 II 2 GD	14,16,17,25,40,42,43,52,53,55, 56,58,59,70 14.16,17,25,40,42,43,52,53,55,	
	IEC60079	IEC60079-1		IECEx TRC 12.0022X	Ex d IIB T6 / II 2 GD		
	SRX	EN60079-1		Sira 10ATEX1219X	Ex d IIB T6 / II 2 GD		
		IEC60079-1	1	IECEx SIR 10.0106X	Ex d IIB T6 / II 2 GD	56,58,59,70	
	VSD	EN60079-1	1	TRAC13ATEX0005X	Ex d (ib) IIC T4/6 / II 2 GD	01,14,16,17,25,40,42,43,70	
		EN60079-11	1				
	IEC60079-1 IEC60079-11	IEC60079-1	1				
		TECEX TRC 13.0004A					
Increased Safety/ Encapsulation	DQ EN60079-7 1 & 2 EN60079-18 IEC60079-7 IEC60079-18	1&2					
		EN60079-18		SITA 12ATEX3032X	Ex enilb IIC 14/6 / II 2 GD	25.58	
		IEC60079-7		IECEx SIR 12.0009X	Ex emb IIC T4/6 / II 2 GD	20,00	
		IEC60079-18					





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